EXHIBIT C –

ENVIRONMENTAL CLEARANCE

(ENV-2019-808-SCEA)

- **C.1 – SCEA Document & CD with SCEA Appendices**
- **C.2 – SCEA Comments and Response to Comments**
- **C.3 – Mitigation Monitoring Program (MMP)**

EXHIBIT C.1 –

SUSTAINABLE COMMUNITIES ENVIRONMENTAL ASSESSMENT (SCEA) DOCUMENT AND CD WITH SCEA APPENDICES

City of Los Angeles

Department of City Planning

City Hall • 200 N. Spring Street, Room 763 • Los Angeles, CA 90012

Sustainable Communities Environmental Assessment

7940 North Lankershim Boulevard (7018-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street)

SUN VALLEY-LA TUNA CANYON COMMUNITY PLAN AREA

Case Number: ENV-2019-808-SCEA

Project Location: The Project is located at 7918-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street and is bounded by North Lankershim Boulevard to the west and West Strathern Street to the north.

Council District: 6—Martinez

Project Description: The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The Project would include a total square footage of approximately 678,328 square feet (sf) and a Floor Area Ratio (FAR) of 3.32:1. The residential units would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households and Very Low Income Households. Of these, five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households. Two commercial properties are currently located on the Project Site including a one-story commercial building, a one-story office building, and associated surface parking and storage areas. The Project would demolish the existing structures to construct the Project. Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in structured parking. The Project would provide 224 bicycle spaces in the structured parking (30 short term bicycle spaces and 194 long term bicycle spaces).

Public Review: A 30-day review period will begin on August 27, 2020, and end on September 28, 2020. Any interested person or agency may comment on this matter by submitting comments to Lilian Rubio via email at Lilian.Rubio@lacity.org; or by mail to 200 North Spring Street, Room 763, Los Angeles, CA 90012.

APPLICANT:	**PREPARED BY:**	**ON BEHALF OF:**
Lankershim Crossing, LLC 23622 Calabasas Rd #121 Calabasas, CA 91302	ICF 555 W. 5th Street, # 3100 Los Angeles, CA 90013	City of Los Angeles Department of City Planning Expedited Processing Section

AUGUST 2020

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SECTION 1
Introduction

This Sustainable Communities Environmental Assessment (SCEA) has been prepared pursuant to Section 21155.2 of the California Public Resources Code (PRC).

Project Title: 7940 Lankershim Boulevard

Project Location: 7940 North Lankershim Boulevard (7918-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street)
Los Angeles, CA 91605

Lead Agency: City of Los Angeles Department of City Planning
200 North Spring Street, Room 763
Los Angeles, CA 90012

City Staff Contact: Lilian Rubio, City Planning Associate
213-978-1840

Project Applicant: Lankershim Crossing, LLC
23622 Calabasas Rd., Suite 121
Calabasas, CA 91302

1.1 Project Description Summary

The subject of this SCEA is a proposed mixed-use development known as the 7940 Lankershim Boulevard Project. The Project Site is an irregular-shaped parcel bordered by North Lankershim Boulevard to the west and West Strathern Street to the north. To the immediate east of the Project Site are single-family residential uses and Blythe Street. Two commercial properties are currently located on the Project Site which includes a one-story commercial building, a one-story office building, and associated surface parking and storage areas. The Project would demolish the existing structures to construct the Project.

The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The Project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet (sf) and a Floor Area Ratio (FAR) of 3.32:1. The residential component/portion would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or

Very Low Income Households. Five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households.

Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in structured parking located within one subterranean level and one above-ground level. All parking would be fully enclosed and screened from public view. The Project would provide 224 bicycle spaces in the structured parking (30 short term bicycle spaces and 194 long term bicycle spaces).

Open space areas and amenities for residents would be include a central courtyard that would be landscaped and open to the sky. Other amenities would include a community room, recreational room, swimming pool and spa area, pet park, and private balconies.

Discretionary entitlements, reviews, and approvals required for implementation of the Project would include, but would not necessarily be limited to, the following:

- Pursuant to the Los Angeles Municipal Code Section (LAMC) Section 12.32-F, a Zone Change and Height District Change to change the zone from C2-1VL and R1-1 to RAS4-1-CUGU.and pursuant to LAMC Section 11.5.11(e) and the California Government Code Section 65915(k), three (3) Developer Incentives to permit:

  – Open Space to be located adjacent to a subject use as listed in LAMC Section 12.18-E.2(d) pursuant to LAMC Section 13.18-F.3(a);

  – An increase of Floor Area Ratio (FAR) to 3.32:1 in lieu of the required FAR required by LAMC Section 12.21.4;

- A parking ratio of 1 parking space per dwelling unit in lieu of the required parking spaces required by LAMC Section 12.21-A.4;Pursuant to LAMC Section 12.24-W,1, a Master Conditional Use Permit for the sale and dispensing of a full line of alcoholic beverages in an approximately 14,000 square foot retail store/pharmacy for off-site consumption and for the sale and dispensing of beer and wine in two approximately 4,000 square-foot restaurants for on-site consumption; and

- Pursuant to LAMC Section 16.05, a Site Plan Review for a project that creates more than 50 dwelling units.

- Approval of other permits, ministerial or discretionary, may be necessary in order to execute and implement the Project. Such approvals may include, but not limited to: landscaping approvals, exterior approvals, storm water discharge permits, grading permits, haul route permits, and installation and hookup approvals for public utilities and related permits; and

- Adoption of the Sustainable Communities Environmental Assessment (SCEA).

1.2 Background Information on Senate Bill 375 and the SCEA

The State of California adopted Senate Bill 375 (SB 375), also known as "The Sustainable Communities and Climate Protection Act of 2008," which outlines growth strategies that better integrate regional land use and transportation planning and that help meet the State of California's greenhouse gas (GHG) emissions reduction mandates. SB 375 requires the State's 18 metropolitan planning organizations to incorporate a "sustainable communities strategy" (SCS) into the regional transportation plans to achieve their respective region's greenhouse gas emission reduction targets set by CARB. Correspondingly, SB 375 provides various California Environmental Quality Act (CEQA) streamlining provisions for projects that are consistent with an adopted applicable SCS and meet certain objective criteria; one such CEQA streamlining tools is the SCEA.

The Southern California Association of Governments (SCAG) is the metropolitan planning organization for the County of Los Angeles (along with the Counties of Imperial, San Bernardino, Riverside, Orange, and Ventura). On April 7, 2016, SCAG's Regional Council adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016–2040 RTP/SCS). For the SCAG region, CARB has set GHG emissions reduction targets at 8 percent below 2005 per capita emissions levels by 2020, and 13 percent below 2005 per capita emissions levels by 2035. The 2016–2040 RTP/SCS outlines strategies to meet or exceed the targets set by CARB. By Executive Order, approved June 28, 2016, CARB officially determined that the 2016–2040 RTP/SCS would achieve CARB's 2020 and 2035 GHG emission reduction targets.

SB 375 allows the City, acting as lead agency, to prepare a SCEA as the environmental CEQA Clearance for "transit priority projects" (as described below) that are consistent with SCAG's 2016–2040 RTP/SCS.

1.3 Transit Priority Project Criteria

SB 375 provides CEQA streamlining benefits to qualifying transit priority projects (TPPs). For purposes of projects in the SCAG region, a qualifying TPP is a project that meets the following four criteria (see PRC Section 21155 (a) and (b)):

1. Is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in the SCAG 2016–2040 RTP/SCS;

2. Contains at least 50 percent residential use, based on total building square footage and, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75;

3. Provides a minimum net density of at least 20 dwelling units per acre; and

4. Is within one-half mile of a major transit stop or high-quality transit corridor included in a regional transportation plan.

1.4 SCEA Process and Streamlining Provisions

Qualifying TPPs that have incorporated all feasible mitigation measures, performance standards or criteria set forth in the prior applicable EIR (SCAG's 2016–2040 RTP/SCS Program EIR) and that are determined to not result in significant and unavoidable environmental impacts may be approved with a SCEA. The specific substantive and procedural requirements for the approval of a SCEA include the following:

1. An initial study shall be prepared for a SCEA to identify all significant impacts or potentially significant impacts of the TPP, except for the following:

    a. Growth-inducing impacts, and

    b. Project-specific or cumulative impacts from cars and light trucks on global warming or the regional transportation network.

    Note: All relevant and feasible 2016–2040 RTP/SCS Program EIR mitigation measures shall be incorporated into the Project prior to conducting the initial study analysis.

2. The initial study shall identify any cumulative impacts that have been adequately addressed and mitigated in a prior applicable certified EIR. Where the lead agency determines the impact has been adequately addressed and mitigated, the impact shall not be cumulatively considerable.

3. The SCEA shall contain mitigation measures that either avoid or mitigate to a level of insignificance all potentially significant or significant effects of the project required to be identified in the initial study.

4. A draft of the SCEA shall be circulated for a public comment period not less than 30 days, and the lead agency shall consider all comments received prior to acting on the SCEA.

5. The SCEA may be approved by the lead agency after the lead agency's legislative body conducts a public hearing, reviews comments received, and finds the following:

    a. All potentially significant or significant effects required to be identified in the initial study have been identified and analyzed, and

    b. With respect to each significant effect on the environment required to be identified in the initial study, either of the following apply:

        i. Changes or alterations have been required in or incorporated into the project that avoid or mitigate the significant effects to a level of insignificance.

        ii. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.

6. The lead agency's decision to review and approve a TPP with a SCEA shall be reviewed under the substantial evidence standard.

1.5 Required Findings

The City of Los Angeles finds, based on the information contained in Section 2 (Project Description), Section 3 (SCEA Criteria and Transit Priority Project Consistency Analysis), Section 4 (Initial Study Checklist), and Section 5 (Sustainable Communities Environmental Impact Analysis) of this document, the City finds that preparation of a SCEA in accordance with Public Resources Code Section 21155.2(b) is appropriate for the Project for the following reasons:

- The Project is consistent with the general use designations, density, building intensity, and applicable policies specified for the area of the Project Sites in the 2016-2040 RTP/SCS) prepared by SCAG, which is the metropolitan planning organization for the City.

- The State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted SCAG's determination that the sustainable communities strategy adopted by SCAG in the 2016-2040 RTP/SCS would, if implemented, achieve the greenhouse gas emission reduction targets.

- The Project qualifies as a transit priority project pursuant to Public Resources Code Section 21155 in that the Project contains more than 50 percent residential use; provides a minimum net density greater than 20 units an acre; and is within one---half mile of a major transit stop or high--- quality transit corridor included in a regional transportation plan;

- The Project is a residential or mixed-use project as defined by Public Resources Code Section 21159.28(d);

- The Project incorporates all feasible mitigation measures, performance standards, or criteria set forth in the prior environmental reports and adopted findings made pursuant to Public Resources Code Section 21081, including the 2016-2040 RTP/SCS Program Environmental Impact Report (Program EIR);

- All potentially significant or significant effects required to be identified and analyzed pursuant to the California Environmental Quality Act (CEQA) in an initial study have been identified and analyzed in an initial study; and

- As outlined in detail in Section 5 (SCEA Initial Study Checklist) and Section 6 (Sustainable Communities Environmental Impact Analysis) changes or alterations have been required in or incorporated into the Project that avoid or mitigate the significant effects to a level of less than significant.

1.6 Organization of the SCEA

Based on the information presented above, the SCEA for the Project is organized as follows:

- **Section 1. Introduction:** This section provides introductory information about the Project and background information regarding SB 375, lists the TPP criteria, and describes the required content of the SCEA.

- **Section 2. Project Description:** This section provides a detailed description of the environmental setting and the Project, including Project characteristics and environmental setting.

- **Section 3. Sustainable Communities Environmental Assessment Criteria:** This section includes a discussion of the Project's consistency with the TPP criteria listed above and demonstrates that the Project satisfies all necessary criteria for approval of a SCEA as set forth in California PRC Sections 21155.2, and 21159.28(a).

- **Section 4. Incorporation of 2016-2040 RTP/SCS Program EIR Mitigation Measures** : This section also identifies all of the mitigation measures contained in the Mitigation Monitoring and Reporting Program (MMRP) for SCAG's 2016–2040 RTP/SCS Program EIR and a discussion of the applicability of the mitigation measures to the Project.

- **Section 5. SCEA Initial Study Checklist:** This section contains the completed Initial Study Checklist and assesses the significant level under each environmental impact category.

- **Section 6. Sustainable Communities Environmental Impact Analysis:** Each environmental issue identified in the Initial Study Checklist contains an assessment and discussion of Project-specific and cumulative impacts associated with each subject area. Where the evaluation identifies potentially significant effects, as identified on the Checklist, mitigation measures are provided to reduce such impacts to less-than-significant levels.

- **Appendices:** Includes various documents, technical reports, and information used in preparation of the SCEA and can be found in the case file for ENV-2019-808-SCEA at the Department of City Planning.

SECTION 2
Project Description

2.1 Introduction

Lankershim Crossing, LLC (Applicant), proposes to develop the 7940 Lankershim Boulevard Project (Project) on an approximately 204,383 square foot/4.69-acre site (Project Site) located in within the Sun Valley-La Tuna Canyon Community Plan area within the City of Los Angeles (City). The Project is located at 7918-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street and is within the Assessor Parcel Numbers (APN) 2311006019, 2311006028, 2311006030, 2311006035, 2311006038,2311006039, 2311007001, 2311007002, 2311007003, and 2311007004.

The Project Site is an irregular-shaped parcel bordered by North Lankershim Boulevard to the west and West Strathern Street to the north. To the immediate east of the Project Site are single-family residential uses fronting Blythe Street. Two commercial properties are currently located on the Project Site which includes a one-story commercial building, a one-story office building, and associated surface parking and storage areas. The Project would demolish the existing structures to construct the Project.

The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The Project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet and a Floor Area Ratio (FAR) of 3.32:1. The residentials would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or Very Low Income Households. Five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households.

Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in structured parking located within one subterranean level and one above-ground level. All parking would be fully enclosed and screened from public view. The Project would provide 224 bicycle spaces in the structured parking (30 short term bicycle spaces and 194 long term bicycle spaces).

Open space areas and amenities for residents would be include a central courtyard that would be landscaped and open to the sky. Other amenities would include a community room, recreational room, swimming pool and spa area, pet park, and private balconies.

2.2 Project Location and Surrounding Uses

The Project Site is bounded by North Lankershim Boulevard to the west and West Strathern Street to the north, as shown in **Figure 1**, *Regional and Vicinity Map*. The Project Site is served by a network of regional transportation facilities providing connectivity to the greater Los Angeles County. The Project is located approximately 0.80 miles south of Interstate 5 (I-5) and 1.2 miles west of State Route 170 (SR 170). The Project Site is also within the vicinity of the major thoroughfares of Vineland Avenue/Sunland Boulevard to the east, Saticoy Street to the South, and Laurel Canyon Boulevard to the west. The Project is 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Project Site is also in close proximity to Metro Bus lines 224 and 353, which run along North Lankershim Boulevard with a connection to the Metro Red Line at Universal Studios. The Metro Red Line route provides a connection to downtown Los Angeles via the districts of Hollywood and Mid-Wilshire. This subway provides a direct link to Union Station. Union Station provides access to the majority of the regions rail and bus lines, linking to major job centers throughout Los Angeles County.

As shown in **Figure 2**, *Aerial Photograph of the Project Site and Vicinity*, the Project Site is in a highly urbanized location surrounded by a mix of land uses, including commercial, residential, industrial, office, and school uses. Immediately northwest of the Project Site at the corner of North Lankershim Boulevard and West Strathern Street is a fast food restaurant (Burger King). Further north along Lankershim Boulevard are various automotive, restaurant, and retail uses. Also to the north of the Project Site, along the opposite northern side of Strathern Street are single-family uses. To the west, along North Lankershim Boulevard are automotive and restaurant, and other commercial uses. Further west, land uses transition to residential uses. To the east, the adjoining parcels are developed for residential uses. Further to the east is Arminta Street Elementary School and Arminta Street Early Education Center. Immediately to south of the Project Site are single-family residential and automotive uses (Schiro's Collision Repairs). Further to the south is Arminta Street and various residential uses, commercial and automotive uses. Also to the south, is a daycare center (LA Childcare and Development) along Lankershim Boulevard.

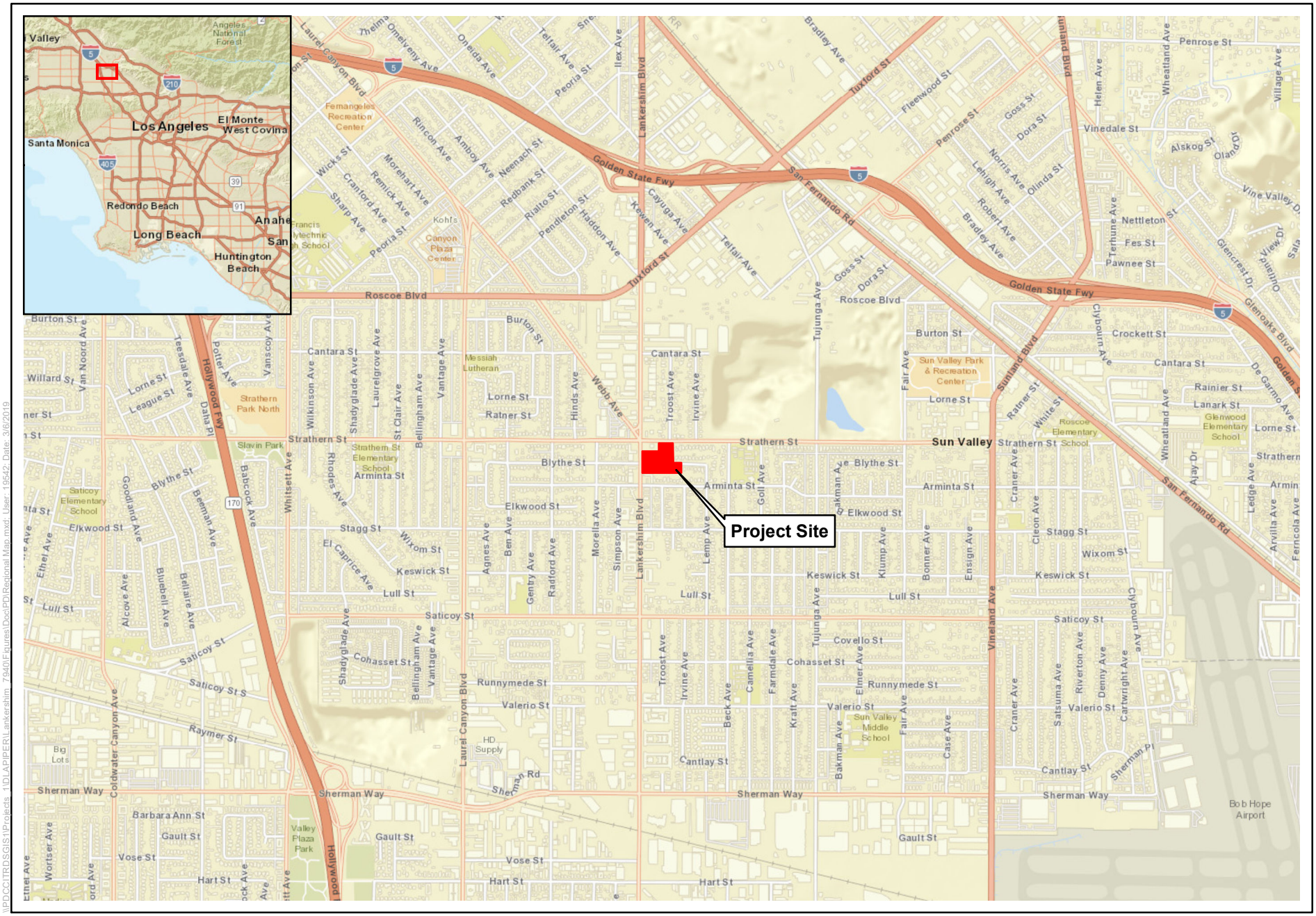


Figure 2-1
Regional and Vicinity Map

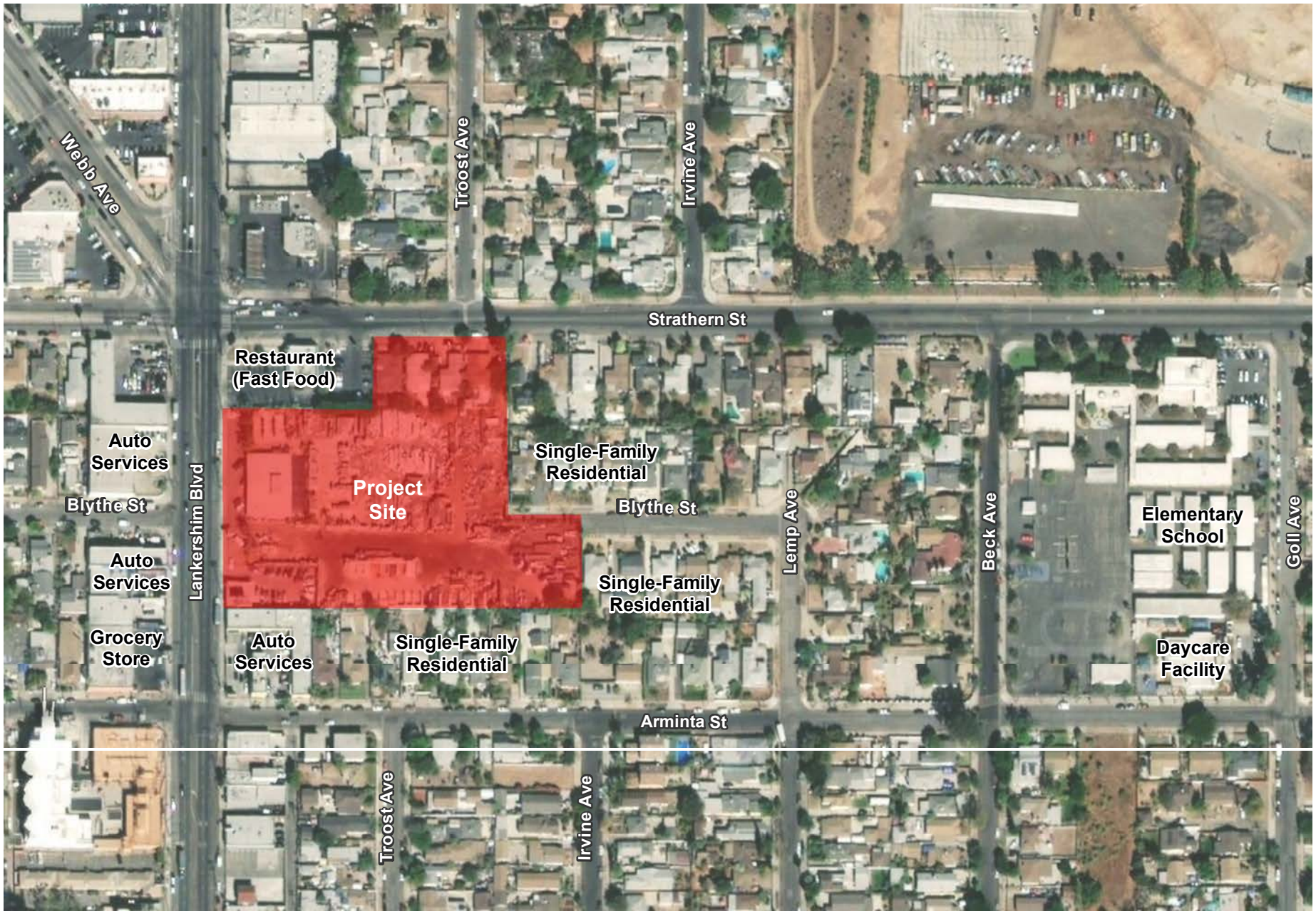


Figure 2-2
Aerial Photo of the Project Site and Vicinity

2.3 Site Background and Existing Site Conditions

Located on the Project Site is a single-story office and a single-story commercial building and associated uses. Located at 7916 North Lankershim Boulevard is a 1,600 square-foot one-story office building constructed in 1940 and associated parking. The one-story commercial building and associated parking located at 7934 and 7940 North Lankershim Boulevard was constructed in 1968 and totals 7,830 square feet. Photographs of the Project Site are provided on **Figure 3** and **Figure 4**, *Photographs of the Project Site*. As further described in Attachment B, Explanation of Checklist Determinations, none of the existing building on the Project Site are eligible as a historical resource under CEQA.

Existing landscaping on the Project Site is limited and consists of 35 non-native and non-protected trees. The Project would remove existing trees and would replace the trees with 117 trees including 15 street trees for a net increase of 82 trees. There are no street trees located on the Project Site, however, the Project is proposing to add 15 new street trees to the site. The street trees will be subject to replacement requirements to the satisfaction of the Department of Public Works, Urban Forestry Division.

2.4 Planning and Zoning

The Project Site is within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan area and is designated as Neighborhood Commercial, which corresponds to the Property's current zoning of C2-1VL and R1-1. The project is located within the Los Angeles State Enterprise Zone (ZI-2374), the Clean Up Green Up Supplemental Use District (ZI-2458), and the Council Office Notification (Permits or Planning Entitlements) (ZI-2376).

The Project would require a Zone Change from C2-1VL and R1-1 to RAS4-1-CUGU. As the existing zoning allows for a FAR of 3:1 and a height of three stories due to a General Plan Footnote (Land Use Map, Footnote No. 2). The Project would require a zone change to RAS4-1-CUGU (residential/accessory) and incentives under Measure JJJ, LAMC Section 11.5.11-(a)1(ii), allowing the Project to utilize three incentives specified in the California Government Code Section 65915(k), used here for (1) a modification of LAMC Section 13.18-F.3(a) requirements to allow open space to be located adjacent to a "Subject Use" as listed in LAMC Section 13.18 E.2.(d); (2) a modification of LAMC Section 12.21.4 requirements to increase the allowable floor area ratio to 3.32:1; and (3) a modification of LAMC Section 12.21 A.4 requirements to provide one automobile parking space for each residential dwelling unit. The zone change is necessary to ensure that zoning for the Project Site is consistent with state law. The R1 portions of the Project Site's current zoning are inconsistent with its Neighborhood Commercial General Plan designation. Therefore, the Project's zone change achieves the state law requirement to ensure that zoning is consistent with the general plan. Moreover, the new zoning designation permits uniform development of mixed-use commercial and multi-family residential uses.

The Los Angeles City Council adopted Measure JJJ on December 31, 2016. The requested entitlements and incentives for the project, including additional FAR, are requested through Measure JJJ, which allows base and additional incentives for projects that reserve a certain

percentage of units as affordable and meet certain labor requirements. The new zoning designation would also permit the development of limited ground floor commercial uses, which allows for mixed-uses at the Project Site and would activate the street and encourage pedestrian activity. The introduction of mixed-uses is a key principle in efforts to promote smart growth, transit-oriented development and promotion of new housing opportunities consistent with the City's General Plan Framework and Sun Valley-La Tuna Canyon Community Plan.



Photo 1: View of Project Site and the commercial building from North Lankershim Boulevard looking east.



Photo 2: View of Burger King restaurant north of the Project Site at the southeast corner of North Lankershim and West Strathern Street.



Photo 3: View of Project Site and the existing office building from North Lankershim Boulevard looking east.



Photo 4: View of commercial uses south of the Project Site from North Lankershim Boulevard looking northeast.

Figure 2-3
Site Photos



Photo 5: View of Project Site from Strathern Street looking southwest.



Photo 6: View of Arco Gas Station north of the Project Site on North Lankershim Boulevard looking north.



Photo 7: View of single-family homes along Arminta Avenue south of the Project Site.



Photo 8: View of Project Site looking west from Blythe Street.

Figure 2-4
Site Photos

2.5 Description of the Project

The Project would demolish the two existing buildings on the Project Site and construct a seven-story mixed-use building with apartment units above commercial retail and restaurant uses. Parking for the building would be within an at-grade level and within one subterranean level on the Project Site. Vehicle access to the Project Site parking garage would be provided via one full-access driveway on West Strathern Street and one limited access driveway accommodating right-turn ingress and right-turn egress only on North Lankershim Boulevard. The driveway on West Strathern Street would provide access to the residential parking spaces on the ground level and the subterranean level, while the driveway on North Lankershim Boulevard would provide access to the on-site commercial parking spaces on the ground floor and a ramp to subterranean residential parking spaces. Pedestrians would access the commercial uses from the pedestrian entrances along North Lankershim Boulevard and access the residential uses through the residential lobbies on North Lankershim Boulevard and West Strathern Street. Additional access controlled residential pedestrian access are provided from within the parking garage and along the perimeter of the building.

As described in more detail below, residential uses would include approximately 604,314 square feet of floor area and up to 432 units, and approximately 22,000 square feet of commercial retail/restaurant space would be provided at the ground level. Residential amenities would include an 8,000 sf community room, a 10,000 sf recreation room, and 84,600 square feet of open space. Overall, the Project would include up to a maximum of approximately 678,328 square feet of floor area (FAR of 3.32:1). The proposed uses are summarized in **Table 1**, *Project Summary*.

Commercial (Retail and/or Restaurant Use)

New commercial space with retail such as a pharmacy and/or restaurant uses, totaling up to approximately 22,000 square feet would be located at the ground level. Of this total, commercial retail use would occupy approximately 14,000 square feet and restaurant uses would occupy approximately 8,000 square feet. The ground level commercial uses would be accessible from the sidewalks along North Lankershim Boulevard and West Strathern Street. Dedicated commercial parking spaces would be provided on the ground floor with access from a driveway on North Lankershim Boulevard. In addition, the pharmacy drive-through would be accessed via a separate driveway along North Lankershim Boulevard.

TABLE 2-1
PROJECT SUMMARY

Lot Area	
204,383 (4.69 acres)	
Floor Area (FAR)	
Total Permitted Density	204,383 square feet divided by 400= 510.95 units
Proposed Residential Floor Area	604,314 square feet
Commercial Floor Area	22,000 square feet
Total Proposed Floor Area (entire project)	**678,328 square feet**
Floor Area Ratio	**3.32**
Land Uses	
Commercial (restaurant)	8,000 square feet
Commercial (retail)	14,000 square feet
Residential	432
One Bedroom	72
Two Bedroom	180
Three Bedroom	180
Required Open Space	
72 One Bedroom (72 x 100 sf)	7,200 square feet
180 Two Bedroom (180 x 125 sf)	22,500 square feet
180 Three Bedroom (180 x 175 sf)	31,500 square feet
Total Required Open Space	**61,200 square feet**
Provided Open Space	
Private Balconies	21,600 square feet
Recreation Room	10,000 square feet
Community Room	8,000 square feet
Courtyard Open to Sky	25,000 square feet
Rear Yard Open to Sky	20,000 square feet
Total Open Space	**84,600 square feet**
New Trees	117 (on-site and street trees)

SOURCE: Kamran Tabrizi Architect & Associates 2019

Residential Uses

Residential uses would be on floors two through seven and would include 432 apartments consisting of 72 one-bedroom units, 180 two-bedroom units and 180 three-bedroom units. A total of 11 percent (48 units) would be restricted affordable units. Of these units, 5 percent (22 units) would be restricted as affordable for Extremely Low Income Households and 6 percent (26 units) would be restricted as affordable for Very Low Income Households. Pedestrian access to the residential uses would be through Project's main lobby and residential leasing office located off of West Strathern Street. Residents would access a designated parking area through a driveway

off of West Strathern Street. Residential amenities include an 8,000 square-foot community room, a 10,000 square-foot recreation room, and a 25,000 square-foot central courtyard area. Other amenities would include a pool and spa, multi-use sport court, community garden, outdoor kitchen, game lounge, pet park, playground, and barbecue area.

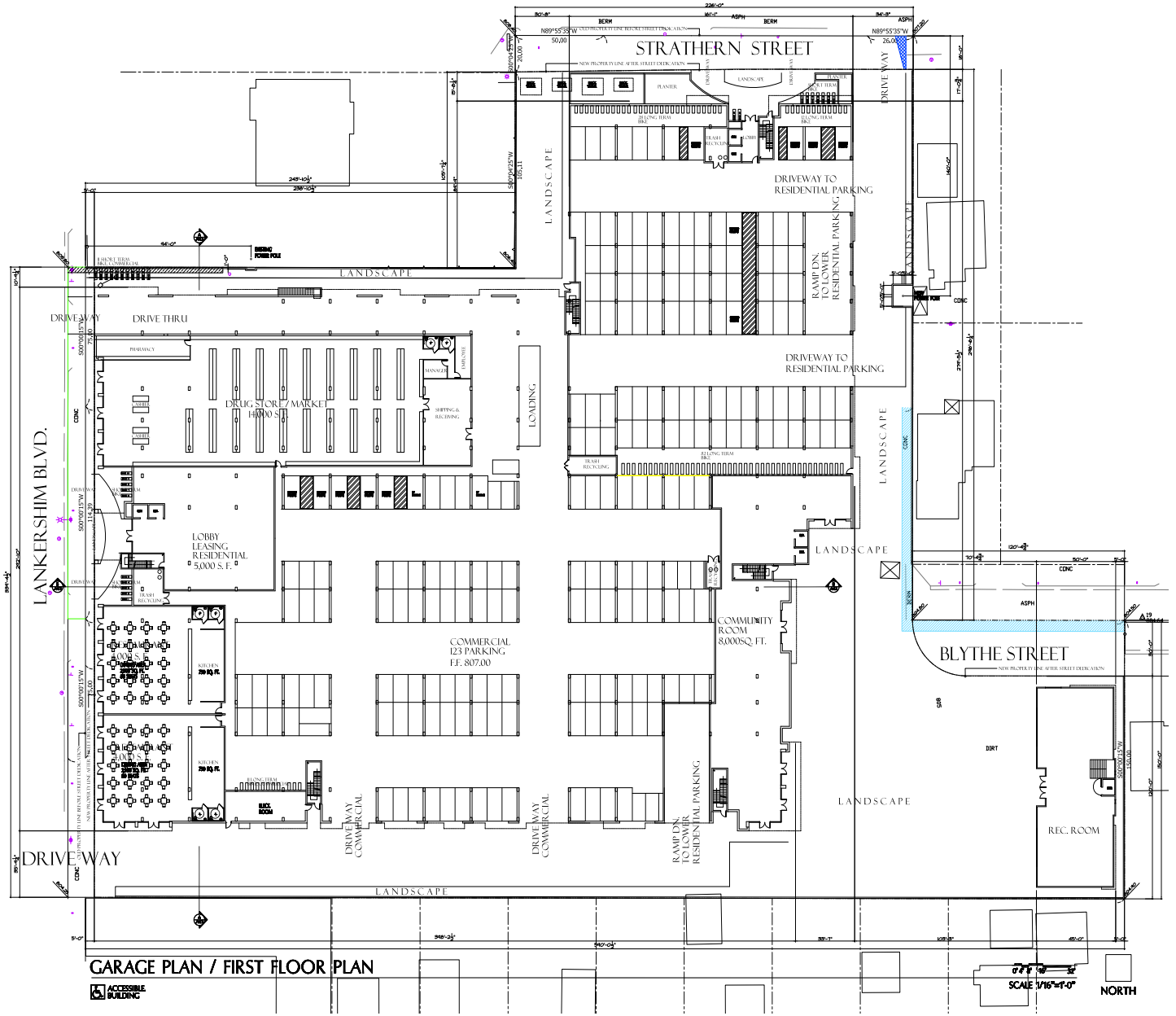
Project Design, Open Space, and Landscaping

Plans, conceptual renderings, and elevations of the Project are shown in **Figure 5**, *Site Plan*, **Figure 6**, *West Side Rendering*, **Figure 7**, *Intersection Rendering*, **Figure 8**, *Rear View Rendering*, **Figure 9**, *Ground level Landscape Plan*, **Figure 10,** *Podium Courtyard Landscape Plan*, **Figure 11**, *Concept Elevations (South and West)*, and **Figure 12**, *Concept Elevations (North and East).* Along the west side of the property, along North Lankershim Boulevard, the main façade of the building is subdivided into four sections with varying scales and materials. Exterior building materials consist primarily of plaster, with accents of grey, blue and black paint, and glass tiles along residential balconies. At the ground level, businesses and the main lobby façade face the adjoining sidewalks and consist of primarily glass. Use of accent colors provide emphasis to select design features of the building, particularly emphasizing its square structural components. The design alternates textures, colors, materials, and distinctive architectural treatments to add visual interest while avoiding repetitive facades. Prior to the issuance of a building permit, the type or categories of all exterior glass and architectural features on the building facades would be submitted for review to the Department of Building and Safety to ensure that highly reflective materials are not utilized.

The building has been designed to activate the pedestrian environment with the inclusion of ground level commercial uses and lobby uses and new perimeter landscaping and street trees.

The Project would remove 28 existing trees on the Project Site and would provide 117 new trees, landscaping, and pedestrian amenities such as seating and benches in the Project's courtyard and rear yard. Landscaped open spaces would include new trees, planters, and planting beds with a variety of plant materials that complement the architecture. Plant material has been selected for temperature hardiness and low water use.

Open space amenities for residents would include a central courtyard located on the second floor between the residential units and connected by walkways, an outdoor recreation area located between the community room and recreation center, and a pet park south of West Strathern Street. The outdoor recreation area adjacent to Blythe Street would include a pool, spa, seating area, barbecue area, playground, lounge, and landscaping. In total, the Project would provide up to approximately 84,600 square feet of open space, of which, 21,600 square feet would be private balconies.



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Figure 2-5
Site Plan



Source: Kamran Tabrizi Architect & Associates, 2019.

Figure 2-6
West Side Rendering

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Source: Kamran Tabrizi Architect & Associates, 2019.

Figure 2-7
Intersection Rendering

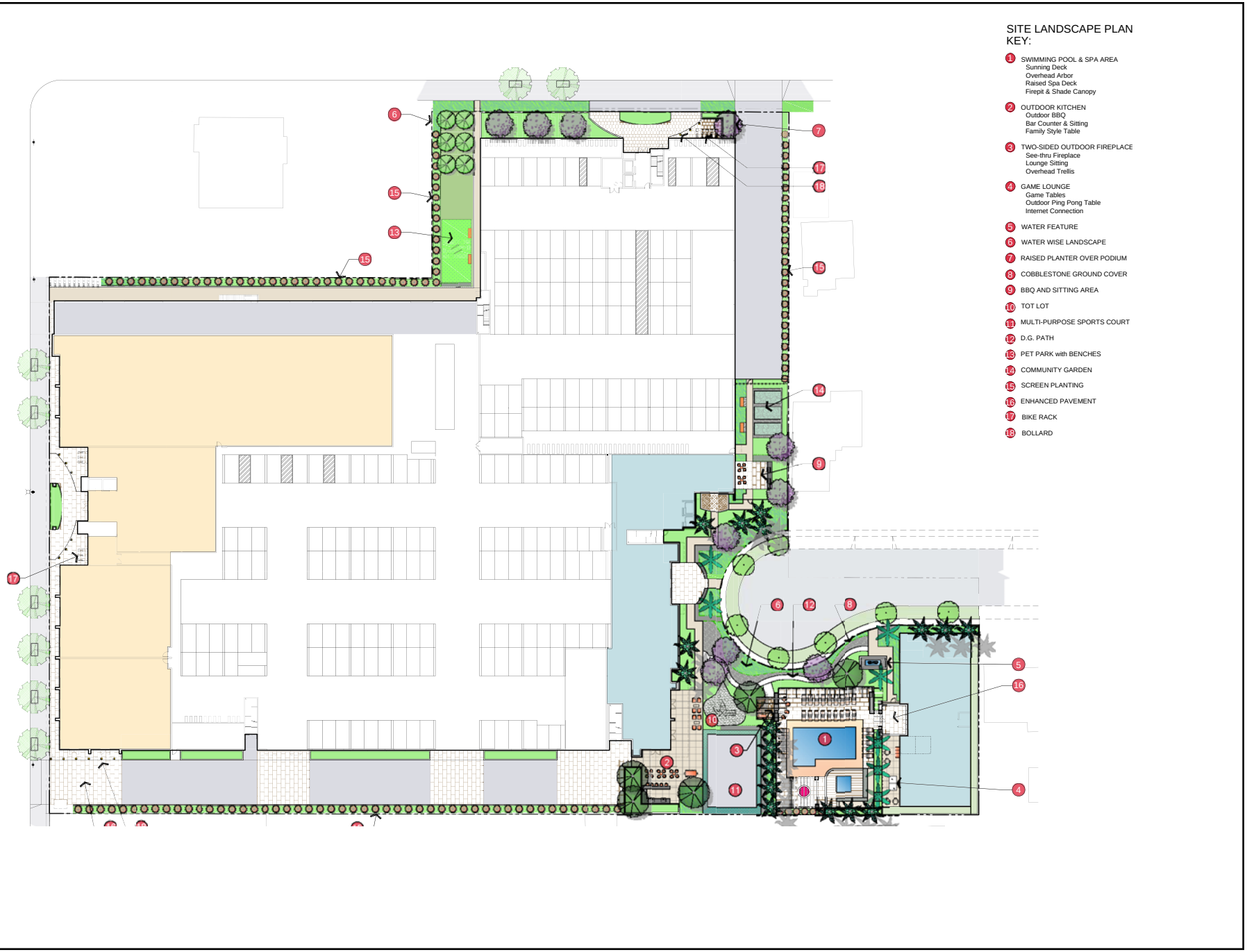
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Source: Kamran Tabrizi Architect & Associates, 2019.

Figure 2-8
Rear Rendering

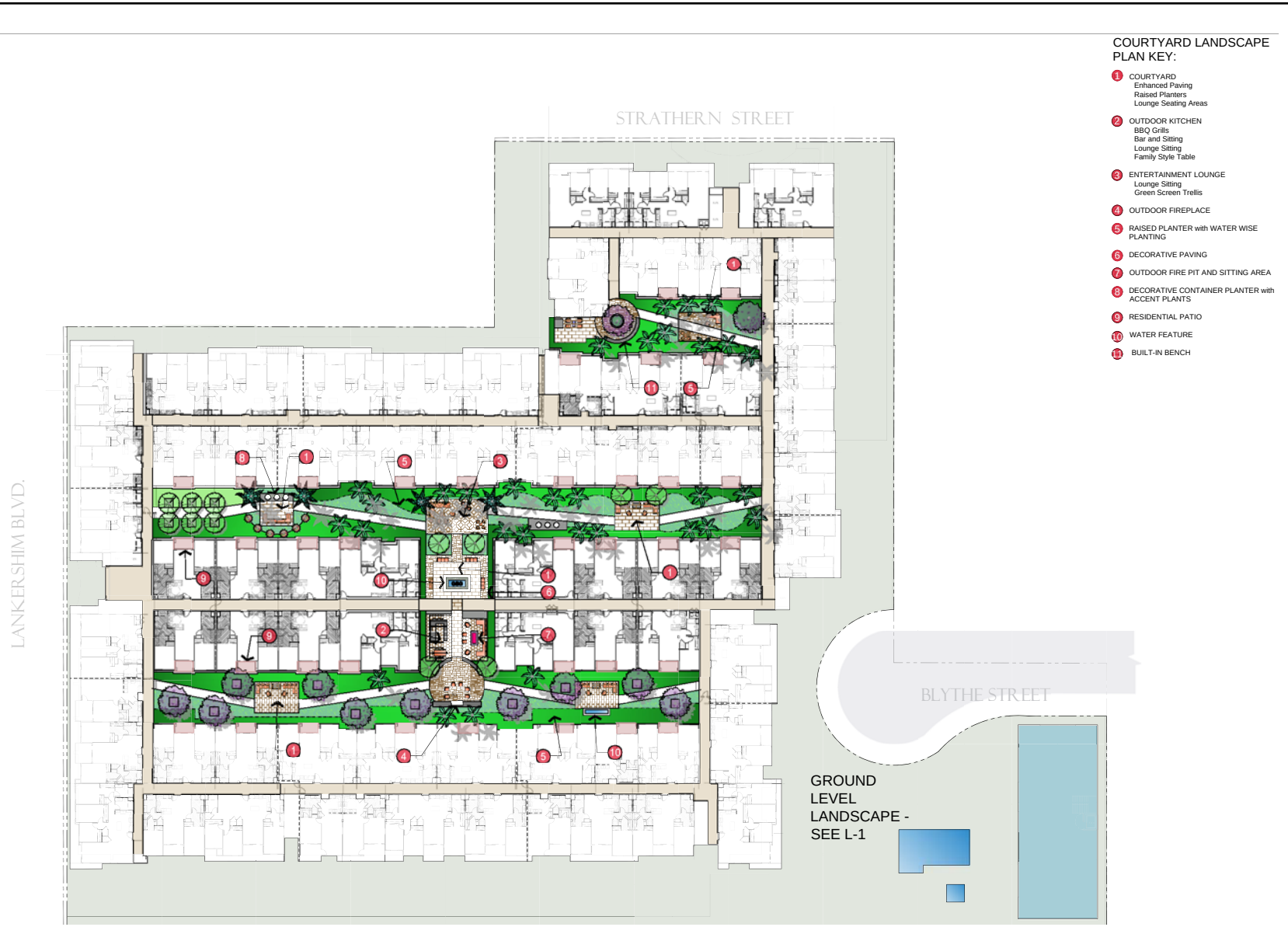
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Source: Kamran Tabrizi Architect & Associates, 2019.

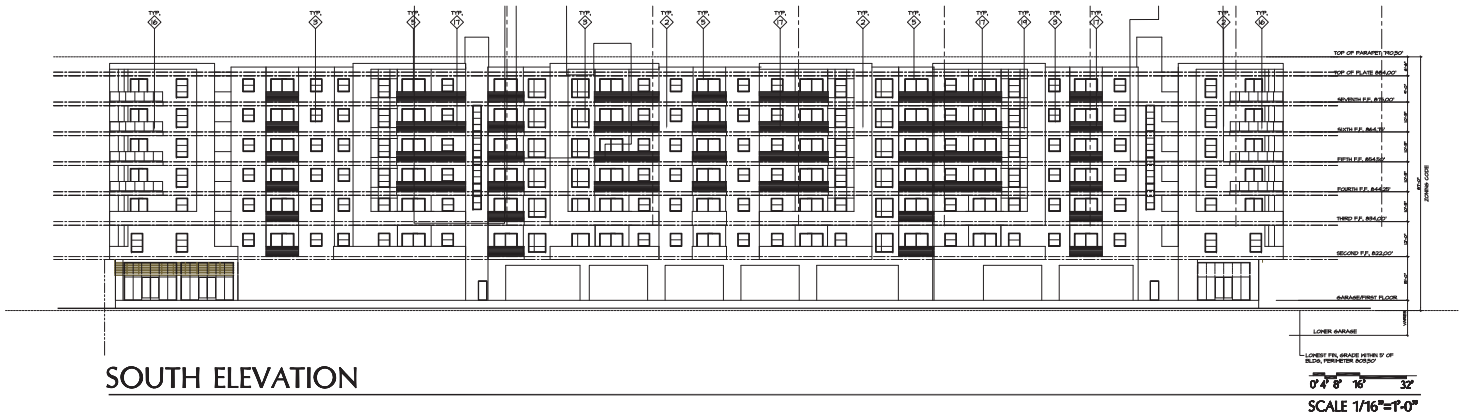
Figure 2-9
Ground Level Landscape Plan



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Figure 2-10
Podium Courtyard Landscape Plan

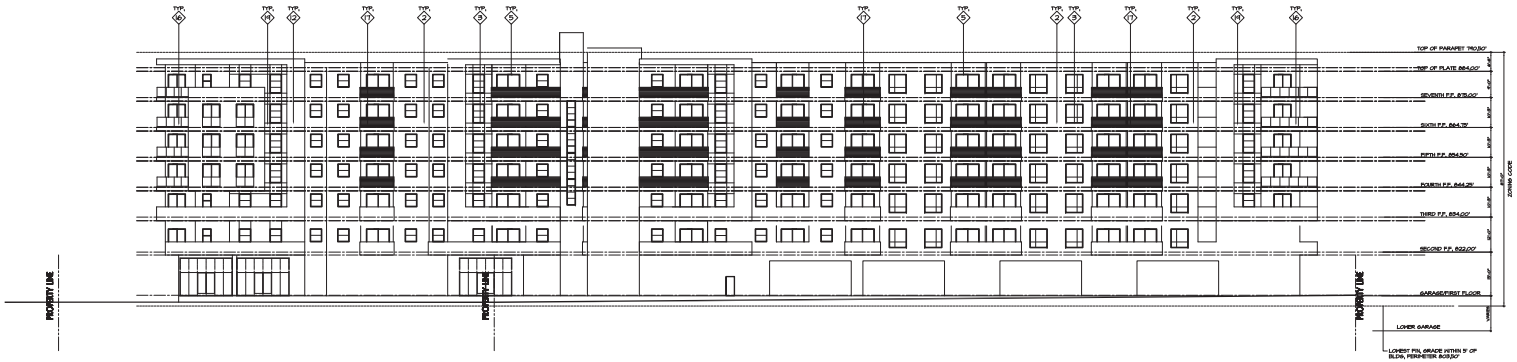




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Source: Kamran Tabrizi Architect & Associates, 2019.

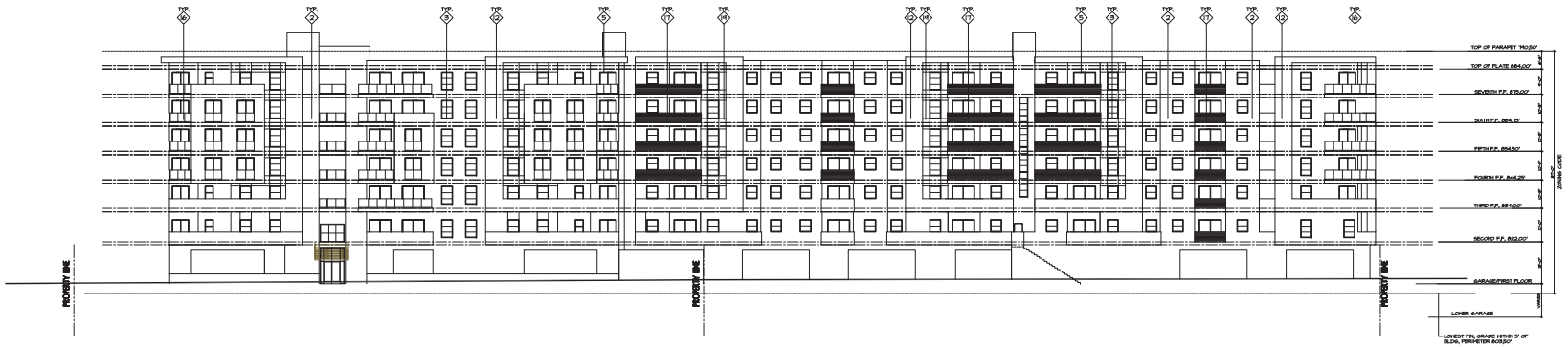
Figure 2-11
West and South Elevations



EAST ELEVATION

0' 4' 8' 16' 32'

SCALE 1/16"=1'-0"



NORTH ELEVATION

0' 4' 8' 16' 32'

SCALE 1/16"=1'-0"

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Source: Kamran Tabrizi Architect & Associates, 2019.

Figure 2-12
East and North Elevations

While there are currently 28 non-native (unprotected) trees on the Project Site which would be removed as part of the Project, the Project would provide 117 on site new trees (including 15 new street trees) for a net total of 89 new trees. Overall, compared to existing conditions, the Project would result in a substantial increase in landscaped space on the Project Site. Landscaped areas would be comprised of native and drought tolerant vegetation, supported by water efficient irrigation systems.

Access and Circulation

Vehicle access to the Project Site's ground floor and subterranean parking garage would be provided via one full-access driveway on Strathern Street and one limited access driveway accommodating right-turn ingress and right-turn egress on North Lankershim Boulevard on the south portion of the Project Site. The driveway on West Strathern Street would provide access to the residential parking garage, while the driveway on North Lankershim Boulevard would provide access to the commercial parking garage and the subterranean residential garage. A separate drive thru-driveway for the proposed 14,000 square-foot retail and/or pharmacy space is located on North Lankershim Boulevard. The Project driveway serving the drive thru retail and/or pharmacy space will be designed to minimize queuing on the adjacent street system that would block through traffic. However, the approval of the driveway dimensions, access and circulation scheme is subject to the review of the Department of Transportation's Citywide Planning Coordination Section. The delivery truck loading and uploading will take place on-site with no vehicles having to back into the project via the proposed project driveways.

Pedestrian access to the residential units would be from the main lobby/leasing area located off of North Lankershim Boulevard. Access to residential areas would be available via elevators and stairways in the parking levels. Access to commercial uses would be directly from the street front along North Lankershim Boulevard. Loading areas would be located on the northern portion of the Project Site, near the drive thru-driveway. Short term parking for bicycles would be provided at the ground level near the entrance of the lobby/leasing area off of North Lankershim Boulevard, in front of the retail uses at the northwest portion of the Project Site, and in front of the residential lobby off of West Strathern Street. Long-term parking for bicycles would be located on the upper level and lower level of the parking structure and in front of the residential lobby off of West Strathern Street.

Parking

The Project proposes to provide 541 automobile parking spaces on site within one subterranean parking level and ground level parking. The parking requirements for automobiles and bicycles are summarized in Table 2. The following outlines the applicable parking standards/policies for the Project's commercial and residential uses:

Commercial Uses

LAMC Section 12.24-A.1, requires a parking ratio of two spaces per 1,000 gross square feet of retail, restaurant and other commercial uses. The Project would be required to provide 44 parking

spaces for the 22,000 square feet of commercial uses. The Project would exceed that requirement and would provide a total of 109 parking spaces.

Residential Uses

Per incentive allowed under Measure JJJ, LAMC Section 11.5.11-(a)1(ii), the Project includes a request for incentives to provide one parking space per residential unit. The Project proposes to construct 432 apartment units and provide 432 parking spaces for residential usage.

Bicycle Parking

Pursuant to LAMC Section 12.21-A.16 the Project would be required to provide a minimum of 224 bicycle parking spaces. The Project would be required to supply 11 short-term and 11 long-term bicycle parking spaces for commercial uses, for a total of 22 bicycle parking spaces. The proposed residential units would require 19 short-term bicycle parking spaces and 183 long-term bicycle parking. The Project would meet these requirements and would provide 224 bicycle parking spaces (202 spaces for residential uses and four spaces 22 commercial uses).

TABLE 2-2
PARKING SUMMARY

	Space/Units Required	**No. of Units/Floor Area**	**No. of Spaces Provided**
Automobile Parking			
Required			
Residential	1 per unit	432 units	432
Commercial	2:1,000	22,000 square feet	44
			476
Automobile Parking			
Proposed			
Total Residential Proposed			432
Total Commercial Proposed			109
Total Parking Proposed			**541**
Bicycle Parking			
Required	**Short Term (1 per 10 residential unit) (1 per 2,000 sf commercial)**	**Long Term (1 per residential unit) (1 per 2,000 sf commercial)**	**Total**
Residential	19	183	
Commercial	11	11	
Total Bicycle Parking Required	**30**	**194**	**224**
Proposed	**Short Term**	**Long Term**	**Total**
Residential	19	183	202
Commercial	11	11	22
Total Bicycle Parking Proposed			**224**

Lighting and Signage

New lighting would include building identification, commercial accent lighting, wayfinding, balcony lighting, and security lighting. Pedestrian areas including pathways and entryways into the Project would be well-lit for security and ground-mounted. Light fixtures would be shielded and directed towards the areas to be lit and away from adjacent light-sensitive residential land uses.

Building identification signage for the ground level commercial use would be visible from North Lankershim Boulevard and West Strathern Street. The building would also include street address and identification/wayfinding signage for the vehicular and pedestrian entries to the building. Lighting would be designed in conformance with LAMC requirements and would not exceed the footcandle light intensity level required at the property line of the nearest sensitive receptor.

Site Security

Design Out Crime/Crime Prevention through Environmental Design

Through the City's land use and building permit process, the LAPD's Crime Prevention Unit provides guidance on design techniques for new developments to incorporate crime prevention into the development design. The techniques and process are outlined in the Design Out Crime Guidelines: Crime Prevention Through Environmental Design, and include the following basic concepts:

- Natural surveillance: The placement of physical features, activities, and people in a way that maximizes visibility.
- Natural access control: Restricting or encouraging people to come into a space through placement of entrances, exits, fencing, landscaping, and lighting.
- Territorial reinforcement: The use of physical attributes to define ownership and separate public and private space.

The Project would incorporate security measures for the safety of residents and visitors to the Project Site. During construction of the Project, the Project Site would be fenced and gated with surveillance cameras to monitor the site during off hours. During operation of the Project, access to the parking structure would be controlled through gated entries, and the entry areas would be well illuminated. Site security would include controlled keycard access to residential areas, parking areas, secured entry and exit points to all buildings, security lighting within common areas and entryways, and closed-circuit TV monitoring (CCTV).

Sustainability Features

Energy saving and sustainable design would be incorporated throughout the Project. The Project would be designed to meet Cal Green and Title 24 Building Standards Code (CALGreen Code). As such, the Project will incorporate eco-friendly building materials, systems, and features wherever feasible, including Energy Star appliances, water saving/low flow fixtures, non-VOC

paints/adhesives, and drought tolerant planting. The Project would emphasize energy and water conservation, which would be achieved through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems, and energy star appliances, and low flow plumbing fixtures. The Project proposes to be prewired for electrical vehicle charging and rooftop solar uses in accordance with the CALGreen Code. The Project would include solar panels on 15 percent of the rooftop space.

The Applicant proposes that the Project would include pre-wiring for electric vehicle (EV) charging spaces for 30 percent of Project's parking capacity for future use. In addition, of the 30 percent EV parking spaces, 10 percent of the Project's parking capacity would include installed chargers for immediate use by EV.

Project Design Features

The Project includes the following Project Design Features (PDFs) that would reduce potential environmental impacts of the Project. The PDFs were taken into account in the analysis of potential Project impacts.

PDF-AQ-1: The following measures will be employed by the Project to minimize construction-related emissions:

- All off-road diesel-powered equipment shall be required to meet Tier 4 final off-road emissions standards during all phases of Project construction. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent.

- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Exceptions to these requirements are identified in 13 California Code of Regulations (CCR) Section 2485(d).

- Provide notification to trucks and vehicles in loading or unloading queues that their engines shall be turned off when not in use for more than 5 minutes.

- Electric equipment shall be used to the extent feasible in lieu of diesel or gasoline-powered equipment.

- All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.

- On-site construction activities shall utilize existing electric power sources to the extent feasible to minimize the use of higher polluting gas or diesel generators.

- Construction activities shall limit the hours of operation of heavy-duty equipment and/or the quantity of equipment in use to the extent feasible.

- During the application of architectural coatings for the new residential, restaurant, and commercial spaces, the Project shall use paints with a VOC content of 10 grams per liter (g/L) or less, which exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113.

- Sufficient dampening of the construction area shall be conducted as necessary to control dust caused by grading, hauling, and wind.

- Construction personnel shall secure loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.

- Construction personnel shall clean all trucks and loads at the export site to prevent the blowing of dirt and spilling of loose earth.

- A sign shall be posted at the Project Site at a readily visible location that identifies the construction manager and a telephone number for any inquiries or complaints from residents regarding construction activities.

PDF-GHG-1:

- The Project shall install energy efficient appliances.
- The Project shall install low-flow plumbing fixtures.
- The Project shall provide 19 short-term and 183 long-term bicycle parking spaces at the Project Site.
- The Project shall plant a total of 117 trees, 15 of which would be street trees, along with native and drought-tolerant vegetation such as shrubs and ground cover.
- The Project shall install solar panels on 15 percent of the rooftop space of the proposed mixed-use building.
- The Project shall install prewiring for electrical vehicle (EV) charging for 30 percent of the total parking spaces provided at the Project Site.
- The Project shall provide EV parking spaces that are installed with chargers and ready for immediate EV use for 10 percent of the total parking spaces provided at the Project Site.
- The Project shall not provide any indoor fireplaces for residential units.
- The Project shall install outdoor power outlets to facilitate the use of electric landscaping equipment for maintaining common areas.
- The Project shall enroll in the organic waste recycling services provided by the solid waste collection service provider and ensure that compostable receptacles will be provided for the multi-family uses to reduce landfilled waste.

PDF-NOI-1:

No pile driving activities or blasting will be allowed at the Project Site during construction.

PDF-NOI-2:

All noise-generating mechanical equipment during Project operations will be equipped with noise-muffling devices or shielding (e.g., enclosures) to minimize noise levels at neighboring properties in accordance with Section 112.02 of the LAMC, 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 5 dBA. The noise control methods that will be implemented by the Project to reduce its mechanical equipment noise levels may include, but will not be limited to:

a) Selecting mechanical equipment designed to produce low noise levels. This includes the mechanical equipment for heating and cooling interior spaces (i.e., HVAC) as well as equipment associated with the swimming pool;

b) Shielding mechanical equipment with screens, acoustical louvers, or other noise barriers; and

c) Installing a parapet wall around the perimeter of the rooftop of the mixed-use building to minimize noise levels from HVAC equipment.

PDF-NOI-3:

The Project will implement operational restrictions to limit excessive noise generated by residents at the outdoor amenity areas located at the ground floor level, which includes the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. Such restrictions will include limiting the hours of use at these outdoor areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire or safety codes), and restricting the exterior use of amplified music. Building management staff would be required to ensure that operations remain in compliance with the daytime noise limits set forth in the LAMC.

PDF PS-1:

A construction fence shall be constructed around the Project Site to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

PDF PS-2:

Prior to the occupancy of the Project, the Applicant shall provide the Foothill Area Commanding Officer with a diagram of each portion of the property, including access routes, and additional information to facilitate potential LAPD responses.

PDF TRAF-1:TDM Program. The Project shall develop and implement a TDM program to promote non-auto travel, and reduce the use of single-occupant vehicle trips. The TDM program would be subject to review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

- Educational Programs/On-Site Coordinator. A TDM coordinator would be required to be part of the building management staff that would reach out to employers and employees directly to promote the benefits of the TDM.

- Transportation Information Center/Kiosk. The Transportation Information Center would be a centrally-located commuter information center where project residents can obtain information regarding commute programs, and individuals can obtain real-time information for planning travel without using an automobile. A Transportation Information Center would provide information about transit schedules, commute planning, rideshare, telecommuting, and bicycle and pedestrian plans.

- Project Design Features to Promote Bicycling and Walking. The Project would incorporate features for bicyclists and pedestrians, such as exclusive access points, secured bicycle parking facilities. Pedestrian improvements internal to the Project Site would encourage walking and connect to off-site pedestrian facilities. Additionally, the Project Site would be designed to be a friendly and convenient environment for pedestrians.

- Bikeway Improvements. The Project would contribute funding toward the implementation of bicycle improvements within the Study Area under the 2010 Bicycle Plan and Mobility Plan.

- Reduced Parking Supply: Reduced parking supply to provide less parking than the direct LAMC requirement without consideration of additional parking reductions mechanisms (i.e., Bicycle Parking Ordinance, Specific Plan or Enterprise Zone areas, etc.)

PDF TRAF-2: Mobility Improvement Program: The mobility improvement plan for the Project would include the following improvements:

- **Installation of Continental (High Visibility) Crosswalks:** The following four study intersections have been identified as locations where continental (high visibility) crosswalks would be installed:
    - 4. Webb Avenue & Roscoe Boulevard
    - 6. Laurel Canyon Boulevard & Strathern Street
    - 9. Vineland Avenue & Strathern Street
    - 12. Tujunga Avenue & Saticoy Street

The Project would install continental (high visibility) crosswalk markings such as white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection.

Additionally, continental (high visibility) crosswalks would include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk.

- **Installation and Maintenance of Sidewalks:** One key corridor has been identified within the Study Area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. The Project would improve this segment of Strathern Street to include widening, paving, and clearly marking sidewalk and curb space.
- **Installation of Bus Stop Shelters:** The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, would be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage.
- **Installation of Bus Stop Benches**: The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, would be improved with the installation of a bus stop bench. The bus stop currently only provides transit signage.

PDF TRAF-3: TSM Improvements. The Project would fund TSM improvements within the Study Area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with LADOT, the following TSM improvements would be implemented:

- Upgrade existing traffic signal controller cabinets to Type 351/2/6/7 cabinets
  - 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
  - 10.Lankershim Boulevard & Stagg Street
  - 11. Lankershim Boulevard & Saticoy Street
  - Replacement of existing video fibers with a 24-strand signal mode fiber cable
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
- Upgrade existing pedestrian push buttons to accessible pedestrian signals
  - 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
  - 10. Lankershim Boulevard & Stagg Street
  - 11. Lankershim Boulevard & Saticoy Street

PDF TRAF-4: The Applicant shall prepare a detailed Construction Management Plan that shall include, but not be limited to, the following elements, as appropriate:

- Prohibition on construction-related vehicles/equipment parking on surrounding public streets.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
- Installation of appropriate traffic signs around the Project Site to ensure pedestrian, bicycle, and vehicle safety.
- No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route.
- Spacing of trucks so as to discourage a convoy effect.
- Installation of truck crossing signs within 300 feet of the exit of the Project Site in each direction.
- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind.
- Securing of loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Cleaning of trucks and loads at the export site to prevent blowing dirt and spilling of loose earth.
- Maintenance of a log documenting the dates of hauling and the number of trips (i.e., trucks) per day available on the job site at all times.
- Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

Construction Schedule

The Project is anticipated to be constructed over a period of approximately 36 months, with completion anticipated in Year 2023. Grading activities would include cut and fill with approximately 89,000 cubic yards being exported from the project site. Construction hours would occur in accordance with the LAMC requirements, which prohibit construction between the hours of 9:00 P.M. and 7:00 A.M. Monday through Friday, 6:00 P.M. and 8:00 A.M. on Saturday, and at any time on Sunday. Parking for the construction workers would be provided on the Project Site or will be leased from near-by off-site parking areas.

2.6 Project Requests

Discretionary entitlements, reviews, and approvals required for implementation of the Project would include, but would not necessarily be limited to, the following:

- Pursuant to the Los Angeles Municipal Code Section (LAMC) Section 12.32-F, a Zone Change and Height District Change to change the zone from C2-1VL and R1-1 to RAS4-1-CUGU.and pursuant to LAMC Section 11.5.11(e) and the California Government Code Section 65915(k), three (3) Developer Incentives to permit:
  - Open Space to be located adjacent to a subject use as listed in LAMC Section 12.18-E.2(d) pursuant to LAMC Section 13.18-F.3(a);
  - An increase of Floor Area Ratio (FAR) to 3.32:1 in lieu of the required FAR required by LAMC Section 12.21.4;
- A parking ratio of 1 parking space per dwelling unit in lieu of the required parking spaces required by LAMC Section 12.21-A.4;Pursuant to LAMC Section 12.24-W,1, a Master Conditional Use Permit for the sale and dispensing of a full line of alcoholic beverages in an approximately 14,000 square foot retail store/pharmacy for off-site consumption and for the sale and dispensing of beer and wine in two approximately 4,000 square-foot restaurants for on-site consumption; and
- Pursuant to LAMC Section 16.05, a Site Plan Review for a project that creates more than 50 dwelling units.
- Approval of other permits, ministerial or discretionary, may be necessary in order to execute and implement the Project. Such approvals may include, but not limited to: landscaping approvals, exterior approvals, storm water discharge permits, grading permits, haul route permits, and installation and hookup approvals for public utilities and related permits; and
- Adoption of the Sustainable Communities Environmental Assessment (SCEA) Construction permits, including building permits, grading, excavation, foundation, and associated permits.
- Other approvals as needed and as may be required.

SECTION 3
Sustainable Communities Environmental Assessment Criteria

3.1 Senate Bill 375

The State of California adopted Senate Bill (SB) 375, the Sustainable Communities and Climate Protection Act of 2008, to outline growth strategies and better integrate regional land use and transportation planning, which will help the State meet its greenhouse gas reduction mandates. SB 375 requires that the State's 18 metropolitan planning organizations incorporate a "sustainable communities strategy" with their respective regional transportation plans to achieve their respective region's greenhouse gas emission reduction targets set by the California Air Resources Board (CARB). The Southern California Association of Governments (SCAG) is the metropolitan planning organization that has jurisdiction over the Project Site.

For the SCAG region, pursuant to SB 375, CARB set greenhouse gas (GHG) emissions reduction targets that were updated in 2018 to an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions, which became effective October 1, 2018.[1]

On April 7, 2016, SCAG adopted the 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS): A Plan for Mobility, Accessibility, Sustainability, and a High Quality of Life. The 2016 RTP/SCS outlines strategies that meet or exceed these targets set by CARB.[2] For the SCAG region, CARB gas set greenhouse gas reduction target to eight percent below 2005 per capita emissions levels by 2020, and 13 percent below 2005 per capita emissions levels by 2035. On June 28, 2016, pursuant to California Government Code Section 65080(b)(2)(J)(ii), CARB accepted SCAG's determination that its 2016 RTP/SCS would, if implemented, achieve CARB's applicable GHG reduction targets.[3]

1 California Air Resources Board, SB 375 Regional Plan Climate Targets, https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed May 29, 2019.

2 Southern California Association of Governments, 2016–2040 Regional Transportation Plan / Sustainable Communities Strategy, Introduction, April 19, 2012, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf. Accessed May 29, 2019.

3 California Air Resources Board, Executive Order No. G-16-066, https://www.arb.ca.gov/cc/sb375/scag_executive_order_g_16_066.pdf. Accessed May 2019.

3.2 Transit Priority Project Criteria

SB 375 provides CEQA streamlining benefits to transit priority projects (TPPs). A TPP is a project that meets the following four criteria (Public Resources Code [PRC] Section 21155 (a) and (b)):

1. Is consistent with the use designation, density, building intensity, and applicable policies specified for the project area in SCAG's 2016 RTP/SCS;

2. Contains at least 50 percent residential use, based on total building square footage and if, if the project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75;

3. Provides a minimum net density of at least 20 units per acre; and

4. Is located within one-half mile of a major transit stop or high-quality transit corridor included in the 2016 RTP/SCS.

Consistency with Criterion 1: Project uses designation, density, building intensity, and applicable policies specified for the Project Area in SCAG's 2016 RTP/SCS.

Use Designation, Density, and Building Intensity

As discussed above, for the SCAG region, CARB has set GHG emissions reduction targets to 8 percent below 2005 per capita emissions levels by 2020, and 19 percent below 2005 per capita emissions levels by 2035. The 2016 RTP/SCS outlines strategies that meet or exceed these targets set by CARB[4] and balances Southern California's regional future mobility and housing needs with economic, environmental and public health goals.[5] On June 28, 2016, CARB accepted SCAG's quantification of GHG emission reductions from the 2016 RTP/SCS and its determination that the 2016 RTP/SCS would, if implemented, achieve the 2020 and 2035 GHG emission reduction targets established by CARB.[6]

For the reasons stated below, the Project is consistent with the land use designation, density, and building intensity in the SCAG 2016 RTP/SCS.

Land Use Designation. For the 2016 RTP/SCS, using data collected from local jurisdictions, including general plans, SCAG categorized existing land use into land use types, then combined the land use types into 35 Place Types, and then classified the 35 Place Types into one of three

4 Southern California Association of Governments, 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy, Introduction, April 19, 2012, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf. Accessed May 29, 2019.

5 http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf, p. 2.

6 California Air Resources Board, Executive Order No. G-16-066, https://www.arb.ca.gov/cc/sb375/scag_executive_order_g_16_066.pdf. Accessed May 29, 2019.

land use development categories (LDCs): urban, compact, or standard.[7] SCAG used each of these categories to describe the conditions that exist and/or are likely to exist within each specific area of the region. (2016–2040 RTP/SCS, pp. 20-21.) SCAG notes that the LDCs utilized in the RTP/SCS are not intended to represent detailed land use policies, but are used to describe the general conditions likely to occur within a specific area if recently emerging trends, such as transit-oriented development, were to continue in concert with the implementation of the 2016 RTP/SCS.

The Project Site is located in an area that is within a "Standard" Land Development Category (LDC) (refer to **Figure 3-1** and **Figure 3-2**). The RTP/SCS defines the "Standard" Land Development Category as areas that comprise the majority of separate-use, auto-oriented developments that have characterized the American suburban landscape for decades. Medium- and larger-lot single-family homes comprise the majority of this development form. The Project's scale, location, and mixture of land uses would be consistent with the Standard Land Development Category place type, as the Project would provide a transition between higher density, mixed-use development along Lankershim Boulevard and single-family homes to the east. Along the main corridor of North Lankershim Boulevard, the Project would focus more active uses; including ground floor commercial uses, the residential lobby and pedestrian and vehicle entrances into the Project. Facing east towards single-family residences, only residential uses are planned and no commercial uses, signage, or pedestrian or vehicle access would be located in this area.

Density. The Project Site is located within an urbanized area within the City of Los Angeles, within Sun Valley-La Tuna Canyon Plan Community Plan. The Project is an infill mixed-use project that proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The 2016 RTP/SCS identifies the HQTAs as appropriate for including high-density development, supporting pedestrian and bike infrastructure, reducing parking requirements, and retaining affordable housing near transit.[8]

The Project Site is located within a High Quality Transit Area (HQTA) as defined by SCAG and a Transit Priority Area (TPA) as defined by SB 743, which supports transit opportunities and promotes a walkable environment. The Project Site is well served by public transit and the Project's location along a mixed-use corridor and onsite commercial and residential uses would encourage the use of transit, walking and bicycling. Consistent with land within a HQTA, the Project would be developed at a greater intensity than the development that currently exists on the Project Site and would set aside 11 percent of its total residential units (48 affordable units) for Extremely Low or Very Low Income Households.

The proposed Project promotes pedestrian activity and bicycling activity by providing landscaping along the public right-of-way, outdoor courtyard area, and outdoor green space and walking paths. The proposed Project is similar to other developments within a HQTA.

[7] http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf, p. 20.

[8] http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf, p. 25.

The Project is consistent with applicable goals and policies presented within SCAG's 2016 RTP/SCS, as shown by the consistency analysis presented in **Table 3-1**.

TABLE 3-1
CONSISTENCY ANALYSIS WITH THE 2016–2040 REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITY STRATEGY POLICES

Goals and Policies	Consistency Assessment
2016–2040 RTP/SCS Goals	
Goal 1. Aligning the plan investments and policies with improving regional economic development and competitiveness	**Not Applicable.** This Goal is directed towards SCAG and the City of Los Angeles and does not apply to individual development projects such as the Project.
Goal 2: Maximize mobility and accessibility for all people and goods in the region.	**Consistent.** The City of Los Angeles has conducted a comprehensive study that describes the baseline health conditions in the City and provides a context for understanding the demographic conditions, social and economic factors, physical environment, access to health care, and health behaviors contributing to the health of City residents and workers. The findings are documented in the Health Atlas for the City of Los Angeles (Health Atlas), published in June 2013. While the primary focus of the Health Atlas is on factors that affect the health behaviors and the health status of residents and workers, much of the data is relevant to land use transportation and GHG emissions as those topics involve similar issues regarding land use patterns, urban design, and transportation systems. Data in the Health Atlas is organized by Community Plan Area (CPA). The Project Site is located in the Sun Valley-La Tuna Canyon Plan. According to the City data in the Health Atlas, approximately 9 percent of workers within the Sun Valley-La Tuna Canyon Plan area commute to work by walking, biking, and public transportation, as compared to the approximately 5.2 percent of nationwide workers that commute to work by walking, biking, and public transportation, based on census data for the 2011 to 2015 period.[9][10] As the Health Atlas only tracks data at the Community Plan level, walkability data was also gathered for the Project Site specifically. According to the Walkscore.com, the Project Site is rated 76 for walk score, which means most errands can be accomplished on foot and many residents are able to forgo owning a car.[11] The Project Site also rates "Bikeable" in transit with a 66, which means the area is good for biking based on bike lanes and trails, hills, and road connectivity.[12] In addition, the City of Los Angeles adopted the Health and Wellness General Plan Element (Plan for a Healthy Los Angeles) in March 2015 that provides a high-level policy vision, along with goals and objectives to elevate health as a priority for the City's future growth and development[13]. Some of the land use goals include accommodating a diversity of land uses, encouraging development near mobility options, supporting transit-oriented development, and emphasizing bicycle mobility.

9 http://healthyplan.la/the-health-atlas/, p. 86. Accessed May 29, 2019.

10 https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/bts-publications/transportation-statistics-annual-reports/215366/2017-tsar-ch2.pdf, p. 2-1. Accessed May 29, 2019.

11 https://www.walkscore.com/score/7940-lankershim-blvd-los-angeles-ca-91605. Accessed May 29, 2019

12 https://www.walkscore.com/score/7940-lankershim-blvd-los-angeles-ca-91605. Accessed May 29, 2019.

13 Los Angeles Department of City Planning, Plan for a Healthy Los Angeles 2015. https://planning.lacity.org/cwd/gnlpln/PlanforHealthyLA.pdf. Accessed May 29, 2019.

Goals and Policies	Consistency Assessment
	The Project would be consistent with the Plan for a Healthy Los Angeles as the Project Site is served by a network of regional transportation facilities providing connectivity to the greater Los Angeles County. The Project Site is in close proximity to multiple bus stops with high frequency transit service. Nearby transit service includes Metro Bus lines 224 and 152 which provide high frequency transit service near the Project Site. Other Metro Bus Lines include Metro lines 94, 169, 222, 230, 353, and 794. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Mobility Plan 2035, which was initially adopted by the City Council in August 2015 and amended and re-adopted in November 2015, January 2016, and September 2016, is a comprehensive update of the City's Transportation Element that incorporates "complete streets" principles. The Mobility Plan 2035 identifies a Transit Enhanced Network (TEN), a Neighborhood Enhanced Network (NEN) to support pedestrian activity, and an expanded Bicycle Enhanced Network (BEN). Among other provisions, the Mobility Plan 2035 includes roadway designations pursuant to updated policies and current transportation needs in the City. The Mobility Plan 2035 also incorporates by reference and updates provisions of City's 2010 Bicycle Plan; and serves as the basis for discussion of impacts on bicycle facilities below. The Mobility Plan 2035 designates a network of bicycle lanes (Tier 1 Protected, Tier 2 and Tier 3) and bicycle paths.[14] The Project would support bicycle and transit mobility. Near the Project Site, Tier 2 bike lanes are provided along Lankershim Boulevard, Vineland Avenue, Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, and Strathern Street, west of Laurel Canyon Boulevard. The Project would encourage the utilization of transit, bicycling and walking due to its close proximity to bus lines, the Metrolink Sun Valley Station, bicycle lanes and nearby services. The Project would include 224 bicycle parking spaces, satisfying LAMC requirements. Therefore, the Project is consistent with this goal.
Goal 3: Ensure travel safety and reliability for all people and goods in the region.	**Consistent.** The Project would improve public safety infrastructure near the Project Site by providing new lighting within the Project Site and around the perimeter including new building identification lighting, commercial accent lighting, wayfinding, balcony lighting, and security lighting. Pedestrian areas including pathways and entryways into the Project would be well-lit for security and ground-mounted. Pedestrian access to the Project would be distinct from vehicle driveways and the Project would not mix pedestrian and automobile traffic to ensure pedestrian safety. The Project would be subject to Site Plan review to ensure vehicle and pedestrian safety throughout the Project.
Goal 4: Preserve and ensure a sustainable regional transportation system.	**Not Applicable** This Goal is directed towards SCAG and does not apply to individual development projects such as the Project, Nevertheless, as a mixed-use development the Project would minimize impacts on the existing roadway system by placing housing near jobs and transit and providing ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project would include 224 bicycle parking spaces for the residential and commercial uses of the Project, in accordance with LAMC requirements. The Project also encourages increased transit use, as the Project would be located in close proximity to multiple bus lines and the Metrolink Sun Valley Station, thereby contributing to increased ridership and sustainability of the City's multimodal transportation system in the region.

[14] City of Los Angeles Mobility Plan 2035, p. 67, http://ladot.lacity.org/sites/g/files/wph266/f/mobilityplnmemo.pdf. Accessed May 29, 2019.

Goals and Policies	Consistency Assessment
Goal 5: Maximize the productivity of our transportation system.	**Consistent**. The Project would encourage the use of mass transit, walking and bicycling, as the Project would locate mixed-use residential and commercial development on a Project Site that is located near frequent Metro bus lines, the Metrolink Sun Valley Station, and bicycle lanes. Since the Project would develop residential and commercial uses within walking distance of existing transit services and would also provide long-term and short-term bicycle parking, the Project would provide opportunities for residents and visitors to use public transit for work trips and walk to businesses near the Project area. Thus, the Project would encourage the utilization of mass transit as a mode of transportation to and from the Project Site area and contribute to the productivity and use of the regional transportation system by providing housing and jobs near transit. The Project would be consistent with this goal.
Goal 6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	**Consistent**. The Project would be consistent with this Goal by facilitating the use of alternative modes of transportation, which would aid in reducing car trips and positively impact air quality. The Project includes 224 bicycle parking spaces for the residential and commercial uses of the Project. The Project would encourage pedestrian travel by incorporating new residential and commercial uses on-site within a mixed-use development as well as locating the Project in an urban area surrounded by a diverse mix of land uses including residential, commercial, industrial and service uses. The Project would be within close proximity to multiple transit options. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience.
Goal 7: Actively encourage and create incentives for energy efficiency, where possible.	**Consistent**. As described with regard to Goal 6, above, the Project would be consistent with this Goal by reducing passenger car trips and encouraging and supporting transit, which reduces transportation energy demand. In addition, the Project would be required to comply with California Building Code Title 24. And the City of Los Angeles Green Building Code. Energy saving and sustainable design would be incorporated throughout the Project. The Project would emphasize energy and water conservation, which would be achieved through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems, and energy star appliances, and low flow plumbing fixtures. The Project would include pre-wiring for electric vehicle (EV) charging spaces for 20 percent of Project's parking capacity for future use. In addition, of the 20 percent EV parking spaces, 5 percent of the Project's parking capacity would include installed chargers for immediate use by EVs. The Project would include solar panels on the 15 percent of the rooftop space.
Goal 8: Encourage land use and growth patterns that facilitate transit and active transportation.	**Consistent**. The Project's location and mix of land uses would encourage the use of transit, walking and bicycling. The Project would locate its mixed-use residential and commercial development on a Project Site that is located within a HQTA and TPA near frequent bus lines, the Metrolink Sun Valley Station, bike lanes, and a pedestrian network. The Project would be developed at a greater intensity than the development that currently exists on the Project Site and would set aside 11 percent of its total residential units (48 affordable units) for Extremely Low or Very Low Income Households. The Project's increased density at the Project Site provides a foundation for the implementation of other strategies for HQTAs and TPAs. As transit ridership in an area increases with density, local transit providers are justified in providing enhanced transit services for the area. As a result, the Project would support and be consistent with land use and growth patterns that facilitate transit and active transportation by: providing a mix of land uses; creating a range of housing opportunities and choices for people at different income levels; creating walkable areas; providing infill development within existing communities; providing a variety of transportation choices; and providing opportunities for residents and visitors to use public transit for work trips, and walk to retail

Goals and Policies	Consistency Assessment
	businesses near the Project site. The Project is consistent with this goal.
Goal 9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Not Applicable**. This policy is directed towards SCAG in allocating transportation investments. This goal does not apply to the individual development projects such as the Project, and no further analysis is required.
Guiding Policy 1: Transportation investments shall be based on SCAG's adopted regional Performance Indicators.	**Not Applicable**. This policy is directed towards SCAG in allocating transportation investments. This goal does not apply to the individual development projects such as the Project, and no further analysis is required.
Guiding Policy 2: Ensuring safety, adequate maintenance and efficiency of operations on the existing multimodal transportation system should be the highest RTP/SCS priorities for any incremental funding in the region.	**Not Applicable**. This policy is directed towards SCAG in allocating transportation system funding. This goal does not apply to the individual development projects such as the Project, and no further analysis is required
Guiding Policy 3: RTP/SCS land use and growth strategies in the RTP/SCS will respect local input and advance smart growth initiatives.	**Not Applicable.** This Guiding Policy is directed towards SCAG and the City of Los Angeles and does not apply to individual projects such as the Project. Nevertheless, the Project Site's urban infill location near mass transit and proximity to services, commercial uses, and employment opportunities promotes a pedestrian- friendly environment and advances smart growth initiatives. The location of the Project Site also promotes the use of a variety of transportation options, which includes walking and the use of public transportation
Guiding Policy 4: Transportation demand management (TDM) and active transportation will be focus areas, subject to Policy 1.	**Not Applicable.** This Guiding Policy is directed towards SCAG and does not apply to individual projects such as the Project.
Guiding Policy 5: HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy 1.	**Not Applicable**. The policy is directed towards transportation investment by SCAG to support HOV, transit and rideshare and does not apply to individual projects such as the Project.
Guiding Policy 6: The RTP/SCS will support investments and strategies to reduce non-recurrent congestion and demand for single occupancy vehicle use, by leveraging advanced technologies.	**Not Applicable**. This Guiding Policy relates to SCAG goals in supporting investments and strategies to reduce congestion and the use of single occupancy vehicles and does not apply to individual projects such as the Project. However, the Project would be located within a HQTA and a TPA and, as such, would support public transportation and other alternative methods of transportation that reduce single-occupancy vehicle use.
Guiding Policy 7: The RTP/SCS will encourage transportation investments that result in cleaner air, a better environment, a more efficient transportation system and sustainable outcomes in the long run.	**Not Applicable**. This policy is directed towards SCAG and governmental agencies to encourage and support particular transportation investments and does not apply to individual projects such as the Project.

Goals and Policies	Consistency Assessment
Guiding Policy 8: Monitoring progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.	**Not Applicable**. This policy is directed towards SCAG and the City of Los Angeles and does not does apply to individual projects such as the Project.
Land Use Policy 1: Identify regional strategic areas for infill and investment.	**Not Applicable.** This policy is directed towards SCAG to identify regional strategic areas and does not apply to individual projects such as the Project. However, the Project is an infill development proposed on an urban infill site located in a HQTA and within a TPA. The Project would be providing affordable housing units in an urbanized area within the City of Los Angeles.
Land Use Policy 2: Structure the plan on a three-tiered system of centers development.	**Not Applicable.** This Land Use Policy is directed towards SCAG and does not apply to individual projects such as the Project. Nevertheless, the Project is an infill development in a HQTA and within a TPA.
Land Use Policy 3: Develop "Complete Communities."	**Consistent.** SCAG describes the development of "complete communities" as providing areas that encourage households to be developed with a range of mobility options to complete short trips.[15] The 2016 RTP/SCS supports the creation of these districts through a concentration of activities with housing, employment, and a mix of retail and services, located in close proximity to each other, where most daily needs can be met within a short distance of home, providing residents with the opportunity to patronize their local area and run daily errands by walking or cycling rather than traveling by automobile.[16] The Project Site's location near mass transit and in close proximity to services, commercial development, and employment opportunities promotes the use of a variety of transportation options, which include walking, cycling, and the use of public transportation to complete the trips needed to serve its future residents' needs. Therefore, the Project would be consistent with SCAG's goals of increasing mixed commercial/residential uses in transit-rich areas near services, retail, and employment opportunities to reduce vehicles-per- miles traveled.
Land Use Policy 4: Develop nodes on a corridor.	**Not Applicable**. The 2016 RTP/SCS describes nodes as mixed-use development centers at key locations that meet most of residents' daily needs and that support livable corridors. This policy is directed towards SCAG and the City's goals to identify and develop locations that promote nodes and does not apply to individual projects such as the Project. However, as described above regarding Land Use Policy 3, the Project is located within a HQTA and a TPA. The Project's mixed-use design and location encourages the use of alternative transportation and walking and bicycling opportunities to meet its residents' needs.
Land Use Policy 5: Plan for additional housing and jobs near transit.	**Consistent**. As stated above, the Project would provide commercial uses and residential units in a HQTA and a TPA. The Project Site is in close proximity to multiple bus stops with high frequency transit service. Nearby transit service includes Metro Bus lines 94, 152, 169, 222, 224, 230, 353, and 794. Metro Bus Lines 224 and 152 run along Lankershim Boulevard with a connection to the Metro Red Line at Universal Studios. The Metro Red Line route provides a connection to downtown Los Angeles via the districts of Hollywood and Mid-Wilshire. This subway provides a direct link to Union Station. Union Station provides access to the majority of the regions rail and bus lines, linking to major job centers throughout Los Angeles County. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the

[15] http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf, p. 79.

[16] http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf, p. 79.

Goals and Policies	Consistency Assessment
	Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster.
Land Use Policy 6: Plan for changing demand in types of housing.	**Consistent**. The Project would provide 48 units affordable to Extremely Low or Very Low Income Households within the City of Los Angeles. The units would help meet the increasing demand for affordable housing in proximity to transit and other forms of alternative transportation such as walking and cycling, to get to basic needs. The Project would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units to help meet the needs of a diversity of household types and sizes. Additionally, a total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for either Extremely Low Income Households or Very Low Income Households. Five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households
Land Use Policy 7: Continue to protect stable, existing single-family areas.	**Consistent**. The Project Site is located in an area of mixed land uses, including commercial, residential, industrial, office, and school uses. The Project is not located within or near single-family neighborhoods and would not remove or encroach on single-family homes.
Land Use Policy 8: Ensure adequate access to open space and preservation of habitat.	**Consistent**. The Project is located within an urbanized area within the City of Los Angeles. Development of the Project would not remove any areas that have significant value as wildlife habitat since the Project Site is currently developed. The Project has been designed to activate the pedestrian environment with the inclusion of ground level commercial uses and lobby uses and new perimeter landscaping and street trees. Open space amenities for residents would include a central courtyard, an outdoor recreation area and community room. In total, the Project would provide up to approximately 84,600 sf of open space.
Land Use Policy 9: Incorporate local input and feedback on future growth.	**Not Applicable**. This Land Use Policy is directed towards SCAG and does not apply to individual projects such as the Project.
Benefit 1: The RTP/SCS will promote the development of better places to live and work through measures that encourage more compact development in certain areas of the region, varied housing options, bicycle and pedestrian improvement, and efficient transportation infrastructure.	**Consistent.** The Project's mixed-use design and location provide this benefit as the Project proposes greater density on the Project Site, which is an urban infill site located in a HQTA and TPA, which would encourage the use of transit, walking and bicycling. The Project would locate mixed-use residential and commercial development on a Project Site that is located in close proximity to multiple bus stops with high frequency transit service and the Metrolink Sun Valley Station. The Project would provide a variety of dwelling unit sizes, including one-bedroom, two-bedroom, and three-bedroom units that accommodate a range of household types and sizes. In addition, the Project would set aside 11 percent of the total units (48 affordable units) to Extremely Low Income or Very Low Income Households. The Project includes 224 bicycle parking spaces for residential and commercial uses. The Project has been designed to activate the pedestrian environment with the inclusion of ground level commercial uses and lobby uses and new perimeter landscaping and street trees. The Project is located in an urbanized area that is well served by regional and local transit, as well as other modes of transportation. The Project would encourage the use of mass transit, walking and bicycling, as the Project would locate mixed-use residential and commercial development on a Project Site that is located near frequent bus lines, the Metrolink Sun Valley Station, and bike lanes. The Project's long-term and short-term bicycle parking would afford people more opportunities to bicycle, walk and pursue other active alternatives to driving. The Project's location in an urban infill area and its mixture of land

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	uses would provide residents and visitors with employment and dining options that are easily accessible on foot or by bicycle. The Project would contribute to the productivity and use of the regional transportation system by providing housing and jobs near transit. The Project would be consistent with and provide this benefit.
Benefit 2: The RTP/SCS will encourage strategic transportation investments that add appropriate capacity and improve critical road conditions in the region, increase transit capacity and expand mobility options. Meanwhile, the Plan outlines strategies for developing land in coming decades that will place destinations closer together, thereby decreasing the time and cost of traveling between them.	**Not applicable**. Benefit 2 is directed towards SCAG and does not apply to individual projects such as the Project. Nevertheless, the Project is an infill, mixed use project that would increase the density on the Project Site, which is located within a HQTA and a TPA. As such, the Project would support and encourage non-vehicular travel, thereby decreasing trips and congestion, and the time and cost of traveling between places.
Benefit 3: The RTP/SCS is expected to result in less energy and water consumption across the region, as well as lower transportation costs for households.	**Consistent**. As described with regard to Goals 6 and 7, above, the Project would reduce single-passenger vehicle trips and encourage and support transit, which would reduce transportation energy demand. In addition, the Project would be required to comply with California Building Code Title 24. Energy saving and sustainable design would be incorporated throughout the Project. The Project would emphasize energy and water conservation, which would be achieved through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems, and energy star appliances, and low flow plumbing fixtures. The Project would include solar panels on 15 percent of the rooftop space. The Project would include pre-wiring for (EV) charging spaces for 20 percent of Project's parking capacity for future use. In addition, of the 20 percent EV parking spaces, 5 percent of the Project's parking capacity would include installed chargers for immediate use by EV. The Project would also allow for lower transportation costs for the Project's future residents by incorporating bicycle-and pedestrian-friendly elements and being located near various bus lines, and the Metrolink Sun Valley Station. The Project's location and design will provide future residents with various affordable transportation options. As such, the Project is consistent with achieving this benefit.
Benefit 4: Improved placemaking and strategic transportation investments will help improve air quality; improve health as people have more opportunities to bicycle, walk and pursue other active alternatives to driving; and better protect natural lands as new growth is concentrated in existing urban and suburban areas.	**Consistent.** See discussion regarding Goals 6 and 7, above. The Project would encourage improved access and mobility by providing residential uses for people at different income levels within walking distance of existing bus lines and rail transit station, including frequent Metro Bus lines 224 and 353/152 and the Metrolink Sun Valley Station. The Project would also provide long-term and short-term bicycle parking which would help people have more opportunities to bicycle, walk and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that are easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people as they would have greater opportunities for pedestrian and bicycling activity and to reduce their reliance on automobiles.

Consistency with Criterion 2: Based on total building square footage, the Project contains at least 50 percent residential use, and if Project contains between 26 percent and 50 percent nonresidential uses, a floor area ratio of not less than 0.75.

2. Transit Priority Project Consistency

	Yes	No
A) Based on total building square footage, the project contains at least 50 percent residential use.	X	
AND, if the project contains between 26 percent and 50 percent non-residential uses, the Floor Area Ratio (FAR) is greater than 0.75	NA	
B) The project contains a minimum net density of at least 20 dwelling units per acre	X	
C) The project site is located within a one-half mile of either one of the following within have been included in the SCAG Regional Transportation Plan: i) a major transit stop that contains an existing rail station, a ferry terminal served by transit, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during peak commute periods, or: ii) a high-quality transit corridor that has fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.	X	

Consistency with Criterion #2A: Based on total building square footage, the Project contains at least 50 percent residential use.

Based on total building square footage, the Project contains at least 50 percent residential use. **Table 3-2** shows the proposed land uses, dwelling units, total square feet, FAR, and percentage of use for each site.

TABLE 3-2
PROPOSED LAND USE

Land Use	Units/Square Feet	Percentage of Use
Residential	432 units (48 affordable) 604,314 square feet	89%
Commercial	22,000 square feet	3.3%
Open Space/Amenities	45,000 square feet	6.7%
Total Floor Area (entire project)	678,328 square feet	100%
FAR	3.32:1	

As reported in Table 3-2, overall, the Project includes a total floor area of approximately 678,328 square feet of floor area (FAR of 3.32:1) with 90 percent dedicated to residential uses. Residential uses would include approximately 604,314 square feet of floor area and up to 432 dwelling units on 6 floors, including 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. Of these units, 48 units would be restricted for Extremely Low Income and Very Low-Income Households

New commercial space with retail such as a pharmacy and/or restaurant uses would be approximately 3 percent of the uses, as 22,000 sf of commercial space would be located at the ground level. Of this total, commercial retail use would occupy approximately 14,000 sf and restaurant uses would occupy approximately 8,000 sf. Open space and amenities would account for approximately 7 percent of uses.

Consistency with Criterion #2.B – The Project includes a minimum net density of at least 20 dwelling units per acre.

The Project includes a minimum net density of at least 20 dwelling units per acre. The Project Site consists of a pre-dedicated lot area of approximately 4.69 acres. Therefore, the Project would provide 432 dwelling units at a density of approximately 92 dwelling units per acre. Accordingly, the Project's density would exceed the required net density of at least 20 dwelling units per acre. Therefore, the Project would be consistent with Criterion #2.B.

Consistency with Criterion # 2.C – The Project Site is located within one-half mile of a major transit stop or high-quality transit corridor included in the 2016 RTP/SCS.

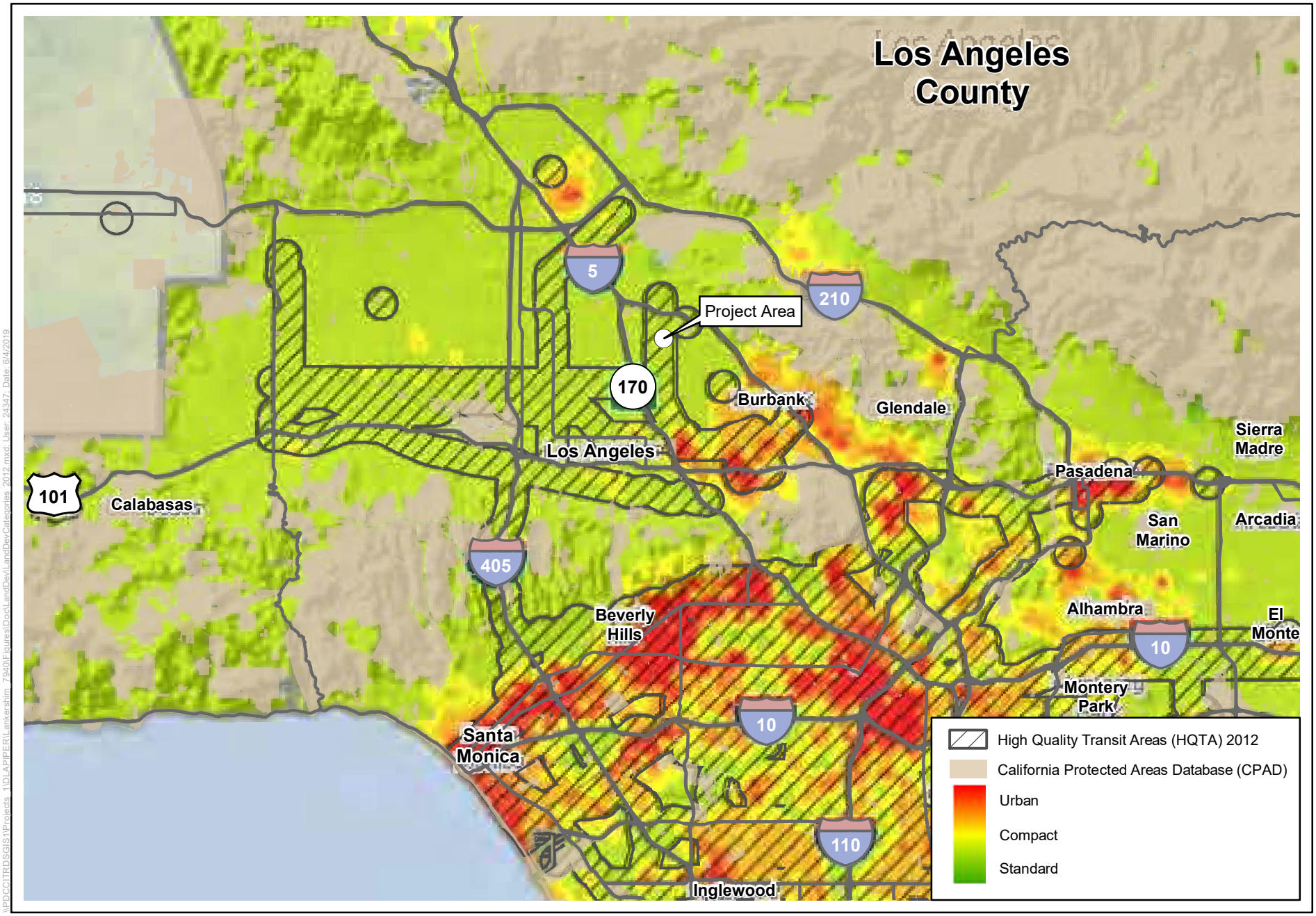
The Project Site is located within one-half mile of either a major transit stop that contains an existing rail station, a ferry terminal served by transit, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during peak commute periods; or a high-quality transit corridor that has fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

A major transit stop is defined as "[a] site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods" and is included in the applicable regional transportation plan (PRC Sections 21064.3 and 21155(b)). A high-quality transit corridor is "[a] corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours" (PRC Section 21155(b)).17 The City of Los Angeles defines peak hours as between 6:00 a.m. and 9:00 a.m. and between 3:00 p.m. and 7:00 p.m.[18]The Project Site is in close proximity to multiple bus stops with high frequency transit service. Nearby transit service includes Metro Bus lines 94, 152/353, 169, 222, 224, 230, 353, and 794. Metro Bus line 152 provides service to Woodland Hills and Sun Valley and travels generally along Roscoe Boulevard and Vineland Avenue north of the Project Site with service intervals of less than 15 minute during peak hours. Metro bus line 353 is a limited stop local line that travels from Woodland Hills to North Hollywood via Roscoe Boulevard and Lankershim Boulevard. This line provides service to Northridge, Panorama City and Sun Valley and travels along Roscoe Boulevard and Lankershim Boulevard.

[17] https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC&sectionNum=21155. Accessed December 6, 2018.

[18] City of Los Angeles Transit Oriented Communities Affordable Housing Incentive Program Guidelines (TOC Guidelines) https://planning.lacity.org/ordinances/docs/toc/TOCGuidelines.pdf.

Metro Bus line 224 travels from Sylmar to Studio City via Lankershim Boulevard immediately adjacent to the Project Site. This bus line provides service to Pacoima, Sun Valley, and North Hollywood with service intervals of less than 15 minute during peak hours. As such, the Project Site is located near a high-quality transit corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Furthermore, Metro Bus Lines 224 and 353/152 run along Lankershim Boulevard with a connection to the Metro Red Line at Universal Studios. The Metro Red Line route provides a connection to downtown Los Angeles via the districts of Hollywood and Mid-Wilshire. This subway provides a direct link to Union Station. Union Station provides access to the majority of the regions rail and bus lines, linking to major job centers throughout Los Angeles County. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. As such, the Project is located within a high-quality transit corridor and would be consistent with Criterion #2C.



Sources: SCAG, 2015; calands.org, 2018

Figure 3-1
Forcasted Regional Development Types by Land Development Categories (2012)

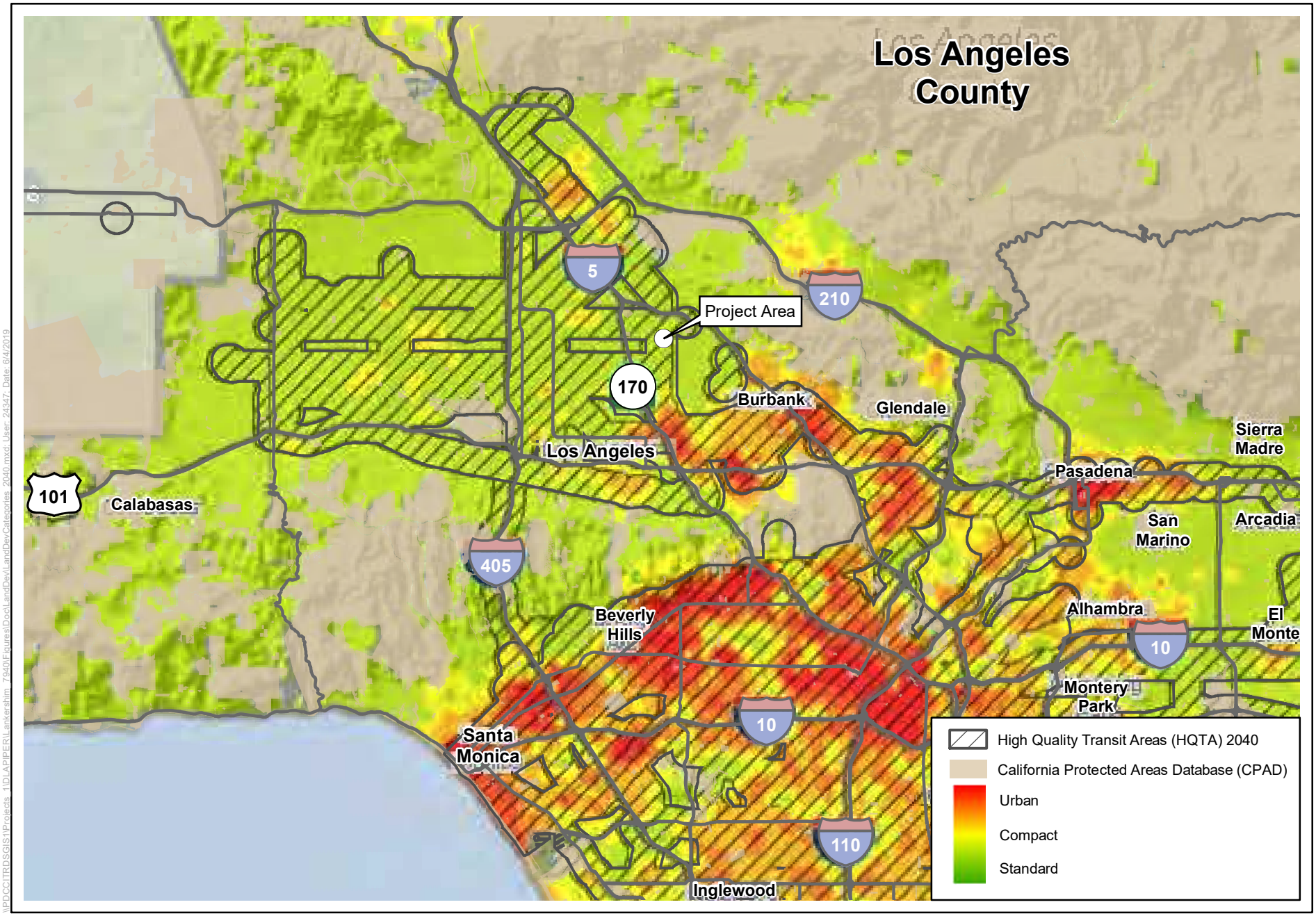


Figure 3-2
Forcasted Regional Development Types by Land Development Categories (2040)

SECTION 4

Incorporation of 2016-2040 RTP/SCS Program EIR Mitigation Measures

4.1 Incorporation of Feasible Mitigation Measures, Performance Standards, and Criteria from Prior Applicable EIRs

Public Resources Code (PRC) Section 21155.2, and 21159.28(a) require that a TPP incorporate all feasible mitigation measures, performance standards, or criteria from prior applicable EIRs, which for the Project would include the 2016 RTP/SCS Program Environmental Impact Report for Southern California Association of Governments which was certified April 7, 2016 (RTP/SCS PEIR). It is the intent of SCAG that lead agencies and others use the information contained within the PEIR in order to "tier" subsequent environmental documentation of projects in the region.

The Mitigation Monitoring and Reporting Program for the RTP/SCS PEIR (SCAG MMRP) does not include project level mitigation measures that are required to be incorporated into the Project. However, the SCAG MMRP does provide a list of mitigation measures that SCAG determined a lead agency can and should consider, as applicable and feasible, where the lead agency has concluded that a project has the potential to result in significant effects. The City has complied with PRC Section 21155.2 and 21159.28.

The RTP/SCS PEIR serves as an informational document to inform decision-makers and the public of the potential environmental consequences of approving the proposed Plan. The RTP/SCS PEIR includes mitigation measures designed to help avoid or minimize significant environmental impacts. The RTP/SCS PEIR serves as a first-tier document for later CEQA review of individual projects included in the program.

Project-specific CEQA reviews, including this SCEA document, focus on project-specific impacts and mitigation measures, and need not repeat the broad analyses contained in the PEIR. As discussed by the California Supreme Court, "it is proper for a lead agency to use its discretion to focus a first-tier EIR on only the…program, leaving project-specific details to subsequent EIRs when specific projects are considered" (In re Bay Delta (2008) 43 Cal. 4th 1143, 1174).

The City has reviewed all mitigation measures contained in the RTP/SCS PEIR (and determined their applicability) to the Project. For each such mitigation measure, the City considered whether to use the RTP/SCS PEIR mitigation measure or an equally effective City mitigation measure or federal, State, regional, or City regulation. The City's applicability determination is found in

Table 4-1, *Project Consistency with 2016–2040 RTP/SCS Mitigation Measures.* As indicated in Table 4-1, the City has incorporated an equally or more effective City mitigation measure or federal, State, regional, or City regulation, or has for other reasons determined that incorporation of the SCAG 2016 RTP/SCS MMRP mitigations measures is not required.

TABLE 4-1
PROJECT CONSISTENCY WITH SCAG 2016-2040 RTP/SCS MITIGATION MEASURES

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
Aesthetics		
AES-1: Potential to have a substantial adverse effect on a scenic vista.	**MM-AES-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects of visual intrusions on scenic vistas, or National Scenic Byways that are in the jurisdiction and responsibility of Caltrans, other public agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with regulations for Caltrans scenic vistas and goals and policies within county and city general plans, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Use a palette of colors, textures, building materials that are graffiti-resistant, and/or plant materials that complement the surrounding landscape and development. • Use contour grading to better match surrounding terrain. Contour edges of major cut-and-fill to provide a more natural looking finished profile. • Use alternating facades to "break up" large facades and provide visual interest. • Design new corridor landscaping to respect existing natural and man-made features and to complement the dominant landscaping of the surrounding areas. • Replace and renew landscaping along corridors with road widenings, interchange projects, and related improvements. • Retain or replace trees bordering highways, so that clear-cutting is not evident. • Provide new corridor landscaping that respects and provides appropriate transition to existing natural and man-made features and is complementary to the dominant landscaping or native habitats of surrounding areas. • Implement design guidelines, local policies, and programs aimed at protecting views of scenic corridors and avoiding visual intrusions in design of projects to minimize contrasts in scale and massing between the project and surrounding natural forms and developments. Avoid, if possible, large cuts and fills when the visual environment (natural or urban) would be substantially disrupted. Site or design of projects should minimize their intrusion into important viewsheds and use contour grading to better match surrounding terrain.	No mitigation is required. PRC Section 21099, enacted by Senate Bill 743, provides that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." Consistent with SB 743, City of Los Angeles Zoning Information File ZI No. 2452 states that visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City's CEQA Threshold Guide shall not be considered a significant impact for infill projects within TPA pursuant to CEQA.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
AES-2: Potential to substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	No mitigation required.	No mitigation is required. PRC Section 21099, enacted by SB 743, provides that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." As such, the Project's aesthetic impacts shall not be considered significant impacts on the environment pursuant to PRC Section 21099. Further provisions of SB 743 provide that this legislation "does not affect, change, or modify the authority of a lead agency to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies (PRC Section 21099(d)(2)(A)), and that aesthetic impacts do not include impacts on historical or cultural resources (Section 21099(d)(2)(B)).
AES-3: Potential to substantially degrade the existing visual character or quality of the site and its surroundings.	**MM-AES-3(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects of degrading the existing public viewpoints, visual character, or quality of the site that are in the jurisdiction and responsibility of local jurisdictions and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the goals and policies within county and city general plans, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Minimize contrasts in scale and massing between the projects and surrounding natural forms and development, minimize their intrusion into important viewsheds, and use contour grading to better match surrounding terrain in accordance with county and city hillside ordinances, where applicable. • Design landscaping along highway corridors to add significant natural elements and visual interest to soften the hard-edged, linear transportation corridors. • Require development of design guidelines for projects that make elements of proposed buildings/facilities visually compatible, or minimize visibility of changes in visual quality or character through use of hardscape and softscape solutions. Specific measures to be addressed include setback buffers, landscaping, color, texture, signage, and lighting criteria. • Design projects consistent with design guidelines of applicable general plans.	No mitigation is required. PRC Section 21099, enacted by SB 743, provides that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." As such, the Project's aesthetic impacts shall not be considered significant impacts on the environment pursuant to PRC Section 21099.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	• Apply development standards and guidelines to maintain compatibility with surrounding natural areas, including site coverage, building height and massing, building materials and color, landscaping, site grading, and so forth in accordance with general plans and adopted design guidelines, where applicable. • Require that sites are kept in a blight/nuisance-free condition. Remove blight or nuisances that compromise visual character or visual quality of project areas including graffiti abatement, trash removal, landscape management, maintenance of signage and billboards in good condition, and replace compromised native vegetation and landscape.	
AES-4: Potential to create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Potential to result in shade and shadow impacts.	**MM-AES-4(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or minimizing the effects of light and glare on routes of travel for motorists, cyclists, and pedestrians, or on adjacent properties, and limit expanded areas of shade and shadow to areas that would not adversely affect open space or outdoor recreation areas that are in the jurisdiction and responsibility of local jurisdictions and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the goals and policies within county and city general plans, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Use lighting fixtures that are adequately shielded to a point below the light bulb and reflector and that prevent unnecessary glare onto adjacent properties. • Restrict the operation of outdoor lighting for construction and operation activities in accordance with local regulations. • Use high pressure sodium and/or cut-off fixtures instead of typical mercury-vapor fixtures for outdoor lighting. • Use unidirectional lighting to avoid light trespass onto adjacent properties. • Design exterior lighting to confine illumination to the project site, and/or to areas which do not include light-sensitive uses. • Provide structural and/or vegetative screening from light-sensitive uses. • Shield and direct all new street and pedestrian lighting away from light-sensitive off-site uses. • Use non-reflective glass or glass treated with a non-reflective coating for all exterior windows and glass used on building surfaces. • Architectural lighting shall be directed onto the building surfaces and have low reflectivity to minimize glare and limit light onto adjacent properties.	No mitigation is required. PRC Section 21099, enacted by SB 743, provides that "aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment." As such, the Project's aesthetic impacts shall not be considered significant impacts on the environment pursuant to PRC Section 21099.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
Agricultural and Forest Resources		
AF-1: Potential to convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.	**MM-AF-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses that are within the jurisdiction and responsibility of the Natural Resources Conservation Service, the California Resources Agency, other public agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the Farmland Protection Act and implementing regulations, and the goals and policies established within the applicable adopted county and city general plans to protect agricultural resources consistent with the Farmland Mapping and Monitoring Program of the California Resources Agency. Such measures may include the following, or other comparable measures identified by the Lead Agency taking into account project and site-specific considerations as applicable and feasible: • For projects that require approval or funding by the USDOT, comply with Section 4(f) U.S. Department of Transportation Act of 1966 (USDOT Act). • Project relocation or corridor realignment to avoid Prime Farmland, Unique Farmland, or Farmland of Local or Statewide Importance. • Maintain and expand agricultural land protections such as urban growth boundaries. Support the acquisition or voluntary dedication of agriculture conservation easements and other programs that preserve agricultural lands, including the creation of farmland mitigation banks. Local governments would be responsible for encouraging the development of agriculture conservation easements or farmland mitigation banks, purchasing conservation agreements or farmland for mitigation, and ensuring that the terms of the conservation easement agreements are upheld. The California Department of Fish and Wildlife provides a definition for conservation or mitigation banks on their website (please see https://www.wildlife.ca.gov/Conservation/Planning/Banking) "A conservation or mitigation bank is privately or publicly owned land managed for its natural resource values. In exchange for permanently protecting, managing, and monitoring the land, the bank sponsor is allowed to sell or transfer habitat credits to permittees who need to satisfy legal requirements and compensate for the environmental impacts of developmental projects. A privately owned conservation or mitigation bank is a free-market enterprise that: • Offers landowners economic incentives to protect natural resources; • Saves permittees time and money by providing them with the certainty of pre-approved compensation lands;	No mitigation is required. The Project Site is currently fully developed and is located in an urbanized setting, and there is no farmland or agricultural activity on the Project Site or in the vicinity.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	• Consolidates small, fragmented wetland mitigation projects into large contiguous sites that have much higher wildlife habitat values; • Provides for long-term protection and management of habitat. A publicly owned conservation or mitigation bank: • Offers the sponsoring public agency advance mitigation for large projects or multiple years of operations and maintenance." In 2013, the University of California published an article entitled "Reforms could boost conservation banking by landowners" that speaks specifically to the use of agricultural lands for in conjunction with conservation banking programs. • Provide for mitigation fees to support a mitigation bank that invests in farmer education, agricultural infrastructure, water supply, marketing, etc. that enhance the commercial viability of retained agricultural lands. • Include underpasses and overpasses at reasonable intervals to maintain property access. • Use berms, buffer zones, setbacks, and fencing to reduce conflicts between new development and farming uses and protect the functions of farmland. • Ensure individual projects are consistent with federal, state, and local policies that preserve agricultural lands and support the economic viability of agricultural activities, as well as policies that provide compensation for property owners if preservation is not feasible. • Contact the California Department of Conservation and each county's Agricultural Commissioner's office to identify the location of prime farmlands and lands that support crops considered valuable to the local or regional economy and evaluate potential impacts to such lands using the land evaluation and site assessment (LESA) analysis method (CEQA Guidelines §21095), as appropriate. Use conservation easements or the payment of in-lieu fees to offset impacts.	
AF-2: Potential to conflict with existing zoning for agricultural use, or a Williamson Act contract.	**MM-AF-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from conflict with existing zoning for agricultural use or a Williamson Act contract that are within the jurisdiction and responsibility of the California Department of Conservation, other public agencies, and Lead Agencies. Where the Lead Agency has identified that a project has potential for significant effects, the Lead Agency can and should consider mitigation measures to mitigate the significant effects of agriculture and forestry resources to ensure compliance with the goals and policies established within the applicable adopted county and city general plans to protect agricultural resources consistent with the California Land Conservation Act of 1965, the Farmland Security Zone Act, and county and city zoning codes, as applicable	No mitigation is required. The Project Site is not zoned for agricultural production, there is no farmland at the Project Site, and there are no Williamson Act Contracts in effect for the Project Site.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency, taking into account project and site-specific considerations as applicable and feasible: • Project relocation or corridor realignment to avoid lands in Williamson Act contracts. • Establish conservation easements consistent with the recommendations of the Department of Conservation, or 20-year Farmland Security Zone contracts (Government Code Section 51296 et seq.), 10-year Williamson Act contracts (Government Code Section 51200 et seq.), or use of other conservation tools available from the California Department of Conservation Division of Land Resource Protection. • Prior to final approval of each project, encourage enrollments of agricultural lands for counties that have Williamson Act programs, where applicable.	
AF-3: Potential to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).	No mitigation required.	No mitigation is required. The Project Site is currently fully developed and located in an urban environment.
AF-4: Potential to result in the loss of forest land or conversion of forest land to non-forest use.	No mitigation required.	No mitigation is required. The Project Site is currently developed with urban uses, not forest use; therefore, no forest land will be lost or converted to non-forest uses.
AF-5: Potential to involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or	**MM AF-1(b) and MM GHG-3(b).**	No mitigation is required. The Project Site is currently fully developed with urban uses, and is not used for any agricultural uses and is not forest land; therefore, no agricultural use or forest land will be converted.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
conversion of forest land to non-forest use.		
Air Quality		
AIR-1: Potential to conflict with or obstruct implementation of the applicable air quality plan.	No mitigation required.	No mitigation is required.
AIR-2: Potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation.	**MM-AIR-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures that are within the jurisdiction and authority of the CARB, air quality management districts, and other regulatory agencies. Where the Lead Agency has identified that a project has the potential to violate an air quality standard or contribute substantially to an existing air quality violation, the Lead Agency can and should consider the measures that have been identified by CARB and air district(s) and other agencies as set forth below, or other comparable measures, to facilitate consistency with plans for attainment of the NAAQS and CAAQS, as applicable and feasible. CARB, South Coast AQMD, Antelope Valley AQMD, Imperial County APCD, Mojave Desert AQMD, Ventura County APCD, and Caltrans have identified project-level feasible measures to reduce construction emissions: • Minimize land disturbance. • Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. • Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes. • Cover trucks when hauling dirt. • Stabilize the surface of dirt piles if not removed immediately. • Limit vehicular paths on unpaved surfaces and stabilize any temporary roads. • Minimize unnecessary vehicular and machinery activities. • Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities. • On Caltrans projects, Caltrans Standard Specifications 10-Dust Control, 17-Watering, and 18-Dust Palliative shall be incorporated into project specifications. • Require contractors to assemble a comprehensive inventory list (i.e., make, model, engine year, horsepower, emission rates) of all heavy- duty off-road (portable and mobile) equipment (50 horsepower and greater) that could be used an aggregate of	The Project's impacts with respect to air quality standards are less than significant, but the Project would nevertheless substantially conform to this mitigation measure as set forth in the 2016 RTP/SCS, as it consists of existing regulatory compliance measures promulgated by CARB and the South Coast Air Quality Management District (SCAQMD): • CARB Anti-Idling Air Toxics Control Measure: This measure, codified in Title 13 California Code of Regulations (CCR) Section 2485, applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time, with certain exception for vehicles where idling is a necessary performance activity such as for concrete trucks. • SCAQMD Rule 401 – Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view. • SCAQMD Rule 402 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	40 or more hours for the construction project. Prepare a plan for approval by the applicable air district demonstrating achievement of the applicable percent reduction for a CARB-approved fleet. • Ensure that all construction equipment is properly tuned and maintained. • Provide an operational water truck on-site at all times. Use watering trucks to minimize dust; watering should be sufficient to confine dust plumes to the project work areas. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway. • Project sponsors should ensure to the extent possible that construction activities utilize grid-based electricity and/or onsite renewable electricity generation rather than diesel and/or gasoline powered generators. • Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off- peak hours. Minimize obstruction of through traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites. • As appropriate, require that portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, obtain CARB Portable Equipment Registration with the state or a local district permit. Arrange appropriate consultations with the CARB or the District to determine registration and permitting requirements prior to equipment operation at the site. • Implement EPA's National Clean Diesel Program. • Diesel- or gasoline-powered equipment shall be replaced by lowest emitting feasible for each piece of equipment from among these options: electric equipment whenever feasible, gasoline-powered equipment if electric infeasible. • On-site electricity shall be used in all construction areas that are demonstrated to be served by electricity. • If cranes are required for construction, they shall be rated at 200 hp or greater equipped with Tier 4 or equivalent engines. • Use alternative diesel fuels, such as Clean Fuels Technology (water emulsified diesel fuel) or O2 diesel ethanol-diesel fuel (O2 Diesel) in existing engines. • Convert part of the construction truck fleet to natural gas. • Include "clean construction equipment fleet", defined as a fleet mix cleaner than the state average, in all construction contracts. • Fuel all off-road and portable diesel powered equipment with ARB-certified motor	of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. • SCAQMD Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter (µg/m3) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Dust control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities. • SCAQMD Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories. • SCAQMD Rule 1186 – PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also SCAQMD Rule 403). • SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities: The Project would comply with the requirements of this rule if asbestos is found during the renovation and construction activities. With regulatory compliance, the risk related to any existing asbestos-containing building materials (ACBMs) at the Project Site would be reduced to acceptable levels, and the

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	vehicle diesel fuel (non-taxed version suitable for use off-road). • Use electric fleet or alternative fueled vehicles where feasible including methanol, propane, and compressed natural gas. • Use diesel construction equipment meeting ARB's Tier 4 certified engines or cleaner off-road heavy-duty diesel engines and comply with State off-road regulation. • Use on-road, heavy-duty trucks that meet the ARB's 2007 or cleaner certification standard for on-road diesel engines, and comply with the State on-road regulation. • Use idle reduction technology, defined as a device that is installed on the vehicle that automatically reduces main engine idling and/or is designed to provide services, e.g., heat, air conditioning, and/or electricity to the vehicle or equipment that would otherwise require the operation of the main drive engine while the vehicle or equipment is temporarily parked or is stationary. • Minimize idling time either by shutting off equipment when not in use or limit idling time to 3 minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the 3-minute idling limit. The construction contractor shall maintain a written idling policy and distribute it to all employees and subcontractors. The on-site construction manager shall enforce this limit. • Prohibit diesel idling within 1,000 feet of sensitive receptors. • Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors. • The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time. • The engine size of construction equipment shall be the minimum practical size. • Catalytic converters shall be installed on gasoline-powered equipment. • Signs shall be posted in designated queuing areas and job sites to remind drivers and operators of the idling limit. • Construction worker trips shall be minimized by providing options for carpooling and by providing for lunch onsite. • Use new or rebuilt equipment. • Maintain all construction equipment in proper working order, according to manufacturer's specifications. The equipment must be check by an ASE-certified mechanic and determined to be running in proper condition before it is operated. • Use low rolling resistance tires on long haul class 8 tractor-trailers. • Suspend all construction activities that generate air pollutant emissions during air	Project would result in no impact with regard to ACBMs. • The Project will comply with South Coast Air Quality Management District Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil, which sets requirements to control the emission of VOC from excavating, grading, handling and treating VOC-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition. • The Project will install odor-reducing equipment in accordance with South Coast Air Quality Management District Rule 1138. • In accordance with Section 93115 in Title 17 of the California Code of Regulations, operation of any stationary, diesel-fueled, compression-ignition engines will meet specified fuel and fuel additive requirements and emission standards. • Nitrogen oxide emissions shall be minimized through the use of emission control measures (e.g., use of best available control technology for new combustion sources such as boilers and water heaters) as required by South Coast Air Quality Management District Regulation XIII, New Source Review. In addition to the above regulatory compliance measures, in order to further minimize construction and operational air pollutant emissions, the Project would include a Project Design Feature (PDF) which requires implementation of best management practices to minimize construction-related emissions, as follows: • PDF-AQ-1: The following measures will be employed by the Project to minimize construction-related emissions: o All off-road diesel-powered equipment shall be required to meet Tier 4 final off-road emissions standards during all phases of Project construction. Such equipment shall be outfitted with Best Available Control Technology

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	alerts. • Install a CARB-verified, Level 3 emission control device, e.g., diesel particulate filters, on all diesel engines.	(BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent. o Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Exceptions to these requirements are identified in 13 California Code of Regulations (CCR) Section 2485(d). o Provide notification to trucks and vehicles in loading or unloading queues that their engines shall be turned off when not in use for more than 5 minutes. o Electric equipment shall be used to the extent feasible in lieu of diesel or gasoline-powered equipment. o All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions. o On-site construction activities shall utilize existing electric power sources to the extent feasible to minimize the use of higher polluting gas or diesel generators. o Construction activities shall limit the hours of operation of heavy-duty equipment and/or the quantity of equipment in use to the extent feasible. o During the application of architectural coatings for the new residential, restaurant, and commercial spaces, the Project shall use paints with a VOC content of 10 grams per liter (g/L) or less, which exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113. o Sufficient dampening of the construction area shall be conducted as necessary to control dust caused by grading, hauling, and wind. o Construction personnel shall secure loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.

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		o Construction personnel shall clean all trucks and loads at the export site to prevent the blowing of dirt and spilling of loose earth. o A sign shall be posted at the Project Site at a readily visible location that identifies the construction manager and a telephone number for any inquiries or complaints from residents regarding construction activities. With implementation of CARB and SCAQMD rules and PDF-AIR-1, the Project would minimize construction emissions and would therefore be substantially in conformance with SCAG MM-AIR-2(b).
AIR-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable NAAQS or CAAQS.	No mitigation required.	No mitigation is required.

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AIR-4: Expose sensitive receptors to substantial pollutant concentrations and harm public health outcomes substantially.	**MM-AIR-4(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures that are within the jurisdiction and authority of the air quality management district(s) where proposed 2016 RTP/SCS transportation projects would be located. Where the Lead Agency has identified that a project has the potential to expose sensitive receptors to substantial pollutant concentrations and harm public health outcomes substantially, the Lead Agency can and should consider the measures that have been identified by CARB and air district(s), or other comparable measures, to reduce cancer risk pursuant to the Air Toxics "Hot Spots" Act of 1987 (AB2588), as applicable and feasible. Such measures include those adopted by CARB designed to reduce substantial pollutant concentrations, specifically diesel, from mobile sources and equipment. CARB's strategy includes the following elements: • Set technology forcing new engine standards. • Reduce emissions from the in-use fleet. • Require clean fuels, and reduce petroleum dependency. • Work with US EPA to reduce emissions from federal and state sources. • Pursue long-term advanced technology measures. Proposed new transportation-related SIP measures include: *On-Road Sources* • Improvements and Enhancements to California's Smog Check Program • Expanded Passenger Vehicle Retirement • Modifications to Reformulated Gasoline Program • Cleaner In-Use Heavy-Duty Trucks • Ship Auxiliary Engine Cold Ironing and Other Clean Technology • Cleaner Ship Main Engines and Fuel • Port Truck Modernization • Accelerated Introduction of Cleaner Line-Haul Locomotives • Clean Up Existing Commercial Harbor Craft • Limited idling of diesel-powered trucks • Consolidated truck trips and improve traffic flow • Late model engines, Low emission diesel products, engine retrofit technology • Alternative fuels for on-road vehicles *Off-Road Sources*	This mitigation measure is not incorporated, because the Project impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant, and no mitigation measures are required.

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	• Cleaner Construction and Other Equipment • Cleaner In-Use Off-Road Equipment • Agricultural Equipment Fleet Modernization • New Emission Standards for Recreational Boats • Off-Road Recreational Vehicle Expanded Emission Standards	
AIR-5: Expose a substantial number of people to objectionable odors.	No mitigation required.	No mitigation is required.
Biological Resources		
BIO-1: Potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	**MMBIO1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on threatened and endangered species and other special status species that are in the jurisdiction and responsibility of U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Wildlife, other public agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Sections 7, 9, and 10(a) of the federal Endangered Species Act; the California Endangered Species Act; the Native Plant Protection Act; the State Fish and Game Code; and the Desert Native Plant Act; and related applicable implementing regulations, as applicable and feasible. Additional compliance should adhere to applicable implementing regulations from the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and/or the California Department of Fish and Wildlife. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Require project design to avoid occupied habitat, potentially suitable habitat, and designated critical habitat, wherever practicable and feasible. • Where avoidance is determined to be infeasible, provide conservation measures to fulfill the requirements of the applicable authorization for incidental take pursuant to Section 7 or 10(a) of the federal Endangered Species Act of Section 2081 of the California Endangered Species Act to support issuance of an incidental take permit. A wide variety of conservation strategies have been successfully used in the SCAG region to protect the survival and recovery in the wild of federally and state-listed endangered species including the bald eagle: o Avoidance strategies o Contribution of in-lieu fees	The Project would be substantially in conformance with this mitigation measure for the reasons stated below. The Project Site is an infill site located in an urban area that is currently fully developed with urban uses. The Project Site does not contain any critical habitat or support any species identified or designated as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. There are 35 trees on the Project Site that would be removed. The Project would provide 117 trees in total, for a net increase of 82 trees. This mitigation measure is not incorporated, because the City has determined that the existing regulatory compliance measures listed below would apply to the Project and ensure potential impacts are less than significant Applicable regulations: • Federal Endangered Species Act • Migratory Bird Treaty Act • Bald and Golden Eagle Protection Act *(?) - delisted from federal ESA* • California Endangered Species Act • California Native Plant Protection Act

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	o Use of mitigation bank credits o Funding of research and recovery efforts o Habitat restoration o Conservation easements o Permanent dedication of habitat o Other comparable measures • Design projects to avoid desert native plants, salvage and relocate desert native plants, and/or pay in lieu fees to support off-site long-term conservation strategies. • Develop and implement a Worker Awareness Program (environmental education) to inform project workers of their responsibilities in regards to avoiding and minimizing impacts on sensitive biological resources. • Appoint an Environmental Inspector to monitor implementation of mitigation measures. • Schedule construction activities to avoid sensitive times for biological resources (e.g., steelhead spawning periods during the winter and spring, nesting bird season) and to avoid the rainy season when erosion and sediment transport is increased. • Conduct pre-construction monitoring to delineate occupied sensitive species' habitat to facilitate avoidance. • Where projects are determined to be within suitable habitat of listed or sensitive species that have specific field survey protocols or guidelines outlined by the USFWS, CDFW, or other local agency, conduct preconstruction surveys that follow applicable protocols and guidelines and are conducted by qualified and/or certified personnel.	• California Desert Native Plants Act • Lists from the California Department of Fish & Wildlife (CDFW): o Species of Special Concern o Fully Protected Animals List o Special Vascular Plants, Bryophytes, and Lichens List o California Sensitive Natural Communities o Inventory of Rare and Endangered Plants by the California Native Plant Society (?)
BIO-2: Potential to have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations; or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	**MM-BIO-1(b)**. **MM-BIO-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on state-designated sensitive habitats, including riparian habitats, that are in the jurisdiction and responsibility of U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Wildlife; and other public agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Section 1600 of the State Fish and Game Code, USFS Land Management Plan for the four national forests in the six-county area: Angeles, Cleveland, Los Padres, and San Bernardino, implementing regulations for the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the California Department of Fish and Wildlife; and other related federal, state, and local regulations, as applicable and feasible. Such measures may include the	No mitigations are required. The Project is located in a developed, urban area and would be replacing existing buildings and associated uses. The Project would not be developed on existing open space. This mitigation measure is not incorporated, because the Project Site does not contain any wetlands, riparian habitats, sensitive natural community or critical habitat or support any species identified or designated as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service, and no impacts related to this issue would occur.

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	following, or other comparable measures identified by the Lead Agency: • Consult with the USFWS and NMFS where such state-designated sensitive or riparian habitats provide potential or occupied habitat for federally listed rare, threatened, and endangered species afforded protection pursuant to the federal Endangered Species Act. • Consult with the USFS where such state-designated sensitive or riparian habitats provide potential or occupied habitat for federally listed rare, threatened, and endangered species afforded protection pursuant to the federal Endangered Species Act and any additional species afforded protection by an adopted Forest Land Management Plan or Resource Management Plan for the four national forests in the six-county area: Angeles, Cleveland, Los Padres, and San Bernardino. • Consult with the CDFW where such state-designated sensitive or riparian habitats provide potential or occupied habitat for state-listed rare, threatened, and endangered species afforded protection pursuant to the California Endangered Species Act, or Fully Protected Species afforded protection pursuant to the State Fish and Game Code. • Consult with the CDFW pursuant to the provisions of Section 1600 of the State Fish and Game Code as they relate to lakes and streambeds. • Consult with the USFWS, USFS, CDFW, and counties and cities in the SCAG region, where state-designated sensitive or riparian habitats are occupied by birds afforded protection pursuant to the Migratory Bird Treaty Act during the breeding season. • Consult with the CDFW for state-designated sensitive or riparian habitats where fur-bearing mammals, afforded protection pursuant to the provisions of the State Fish and Game Code for fur-bearing mammals, are actively using the areas in conjunction with breeding activities. • Utilize applicable and CDFW approved plant community classification resources during delineation of sensitive communities and invasive plants including, but not limited to, the *Manual of California Vegetation*, the California Invasive Plant Inventory Database, and the Orange County California Native Plant Society (OCCNPS) Emergent Invasive Plant Management Program, where appropriate. • Encourage project design to avoid sensitive natural communities and riparian habitats, wherever practicable and feasible. • Where avoidance is determined to be infeasible, develop sufficient conservation measures through coordination with local agencies and the regulatory agency (i.e., USFWS or CDFW) to protect sensitive natural communities and riparian habitats. • Install fencing and/or mark sensitive habitat to be avoided during construction activities.	See Applicable regulations • California Department of Fish & Wildlife (CDFW) – [list of] California Sensitive Natural Communities

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	• Salvage and stockpile topsoil (the surface material from 6 to 12 inches deep) and perennial plants for use in restoring native vegetation to all areas of temporary disturbance within the project area. • Revegetate with appropriate native vegetation following the completion of construction activities. • Complete habitat enhancement (e.g., through removal of non-native invasive wetland species and replacement with more ecologically valuable native species). • Use Best Management Practices (BMPs) at construction sites to minimize erosion and sediment transport from the area. BMPs include encouraging growth of vegetation in disturbed areas, using straw bales or other silt-catching devices, and using settling basins to minimize soil transport.	
BIO-3: Potential to have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	**MM-BIO-1(b)** and **MM-BIO-2(b)**. **MM-BIO-3(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on protected wetlands that are in the jurisdiction and responsibility of the U.S. Army Corps of Engineers, public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Section 404 of the Clean Water Act and regulations of the U.S. Army Corps of Engineers (USACOE), and other applicable federal, state and local regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Require project design to avoid federally protected wetlands consistent with the provisions of Section 404 of the Clean Water Act, wherever practicable and feasible. • Where the Lead Agency has identified that a project, or other regionally significant project, has the potential to impact other wetlands or waters not protected under Section 404 of the Clean Water Act, seek comparable coverage for these wetlands and waters in consultation with the USACOE and applicable Regional Water Quality Control Boards (RWQCB). • Where avoidance is determined to be infeasible, develop sufficient conservation measures to fulfill the requirements of the applicable authorization for impacts to federally protected wetlands to support issuance of a permit under Section 404 of the Clean Water Act as administered by the USACOE. The use of an authorized Nationwide Permit or issuance of an individual permit requires the project applicant to demonstrate compliance with the USACOE's Final Compensatory Mitigation Rule. The USACOE reviews projects to ensure environmental impacts to aquatic resources are avoided or minimized as much as possible. Consistent with the administration's performance standard of "no net loss of wetlands" a USACOE	No mitigations are required. The Project Site is a fully developed urban infill site that is not located on protected wetlands or water features that are in the jurisdiction and responsibility of the U.S. Army Corps of Engineers or any other public agencies and/or Lead Agencies. Applicable regulations: • Clean Water Act • Porter-Cologne Water Quality Control Act • Fish & Game Code Section 1602 - Lake & Streambed Alteration (LSA) Agreement from the California Department of Fish & Wildlife (CDFW)

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	permit may require a project proponent to restore, establish, enhance or preserve other aquatic resources in order to replace those affected by the proposed project. This compensatory mitigation process seeks to replace the loss of existing aquatic resource functions and area. Project proponents required to complete mitigation are encouraged to use a watershed approach and watershed planning information. The new rule establishes performance standards, sets timeframes for decision making, and to the extent possible, establishes equivalent requirements and standards for the three sources of compensatory mitigation: o Permittee-responsible mitigation o Contribution of in-lieu fees o Use of mitigation bank credits • Require review of construction drawings by a certified wetland delineator as part of each project-specific environmental analysis to determine whether wetlands will be affected and, if necessary, perform a formal wetland delineation.	
BIO-4: Potential to interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	**MM-BIO-1(b)**, **MM-BIO-2(b)**, and **MM-BIO-3(b)**. **MM-BIO-4(B):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on migratory fish or wildlife species or within established native resident and/or migratory wildlife corridors, and native wildlife nursery sites that are in the jurisdiction and responsibility of U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, U.S. Forest Service, public agencies and/or Lead Agencies, as applicable and feasible. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with regulations of the USFWS, USFS, CDFW, and related regulations, goals and polices of counties and cities, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Consult with the USFWS, USFS, CDFW, and counties and cities in the SCAG region, where impacts to birds afforded protection pursuant to the Migratory Bird Treaty Act during the breeding season may occur. • Consult with the USFS where impacts to migratory wildlife corridors may occur in an area afforded protection by an adopted Forest Land Management Plan or Resource Management Plan for the four national forests in the Six-County area: Angeles, Cleveland, Los Padres, and San Bernardino. • Consult with counties, cities, and other local organizations when impacts may occur to open space areas that have been designated as important for wildlife movement. • Prohibit construction activities within 500 feet of occupied breeding areas for wildlife afforded protection pursuant to Title 14 § 460 of the California Code of	Mitigation is not required because Project impacts would be less than significant with the implementation of regulatory compliance measures. Nevertheless, the Project would be substantially in conformance with these mitigation measures for the reasons stated below. The Project Site is currently developed and located in a highly urbanized area in the City of Los Angeles. No wildlife corridors or native wildlife nursery sites are present on the Project Site or in the surrounding area. Further, due to the urbanized nature of the Project Site area, the potential for native resident or migratory wildlife species movement through the Site is negligible. Nonetheless, the Project Site does include ornamental trees that could support raptor and/or songbird nests. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). California Fish and Wildlife Code Sections 3503, 3503.5, and 3513 prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). The removal of vegetation with nesting birds during the breeding season is considered a potentially significant impact. However, while the Project would remove 35 trees on the Project Site, the effects of this removal

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	Regulations protecting fur-bearing mammals, during the breeding season. • Prohibit clearing of vegetation and construction within the peak avian breeding season (February 1st through September 1st), where feasible. • Conduct weekly surveys to identify active raptor and other migratory nongame bird nests by a qualified biologist with experience in conducting breeding bird surveys within three days prior to the work in the area from February 1 through August 31. • Prohibit construction activities with 300 feet (500 feet for raptors) of occupied nests of birds afforded protection pursuant to the Migratory Bird Treaty Act, during the breeding season. Delineate the non-disturbance buffer by temporary fencing and keep the buffer in place until construction is complete or the nest is no longer active. No construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the project. Reductions or expansions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors. • Ensure that suitable nesting sites for migratory nongame native bird species protected under the Migratory Bird Treaty Act and/or trees with unoccupied raptor nests should only be removed prior to February 1, or following the nesting season. • Conduct site-specific analyses of opportunities to preserve or improve habitat linkages with areas on- and off-site. Analyze habitat linkages/wildlife movement corridors on a broader and cumulative impact analysis scale to avoid adverse impacts from linear projects that have potential for impacts on a broader scale or critical narrow choke points that could reduce function of recognized movement corridors on a larger scale. Require review of construction drawings and habitat connectivity mapping provided by the CDFW or CNDDB by a qualified biologist to determine the risk of habitat fragmentation. • Pursue mitigation banking to preserve habitat linkages and corridors (opportunities to purchase, maintain, and/or restore offsite habitat). • Demonstrate that proposed projects would not adversely affect movement of any native resident or migratory fish or wildlife species, wildlife movement corridors, or wildlife nursery sites through the incorporation of avoidance strategies into project design, wherever practicable and feasible. • Evaluate the potential for overpasses, underpasses, and culverts in cases where a roadway or other transportation project may interrupt the flow of species through their habitat. Provide wildlife crossings in accordance with proven standards, such as FHWA's Critter Crossings or Ventura County Mitigation Guidelines and in consultation with wildlife corridor authorities with sufficient knowledge of both regional and local wildlife corridors, and at locations useful and appropriate for the species of concern.	would be temporary, as the Project would provide 117 trees on the Project Site, resulting in a net increase of 82 trees, such that the Project would provide greater habitat area for birds. The Applicant will be required to ensure compliance with all applicable laws and regulations to ensure that no significant impacts to nesting birds would occur due to the removal of the existing trees located on the Project Site. As a standard practice, the Department of Building and Safety generally imposes a condition that requires grading and earthwork activities (including disturbances to native and non-native vegetation, structures and substrates) to take place outside of the breeding bird season which generally runs from March 1 – August 31 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If the Project's activities cannot feasibly avoid the breeding bird season, beginning thirty days prior to the disturbance of suitable nesting habitat, the Applicant would be required to arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows. If a protected native bird is found, the Applicant would be required to delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Therefore, with adherence to existing laws and regulations, no mitigation is required and impacts would be less than significant.

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	• Install wildlife fencing where appropriate to minimize the probability of wildlife injury due to direct interaction between wildlife and roads or construction. • Establish native vegetation and facilitate the enhancement and maintenance of biological diversity within existing habitat pockets in urban environments that provide connectivity to large-scale habitat areas. • Where avoidance is determined to be infeasible, design sufficient conservation measures through coordination with local agencies and the regulatory agency (i.e., USFWS or CDFW) and in accordance with the respective counties and cities general plans to establish plans to mitigate for the loss of fish and wildlife movement corridors and/or wildlife nursery sites. The consideration of conservation measures may include the following measures, in addition to the measures outlined in **MM-BIO-1(b)**, where applicable: o Wildlife movement buffer zones o Corridor realignment o Appropriately spaced breaks in center barriers o Stream rerouting o Culverts o Creation of artificial movement corridors such as freeway under- or overpasses o Other comparable measures • Where the Lead Agency has identified that a RTP/SCS project, or other regionally significant project, has the potential to impact other open space or nursery site areas, seek comparable coverage for these areas in consultation with the USFWS, CDFW, NMFS, or other local jurisdictions. • Project sponsors should emphasize that urban habitats and the plant and wildlife species they support are indeed valuable, despite the fact they are located in urbanized (previously disturbed) areas. Established habitat connectivity and wildlife corridors in these urban ecosystems will likely be impacted with further urbanization, as proposed in the Project. Appropriate mitigation measures should be proposed, developed, and implemented in these sensitive urban microhabitats to support or enhance the rich diversity of urban plant and wildlife species. • Establish native vegetation within habitat pockets or the "wildling of urbanized habitats" that facilitate the enhancement and maintenance of biological diversity in these areas. These habitat pockets, as they hopscotch across an urban environment, provide connectivity to large-scale habitat areas.	
BIO-5: Potential to conflict with any local policies or ordinances	**MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, and **MM-BIO-4(b)**. **MM-BIO-5(b):** Consistent with the provisions of Section 15091 of the State CEQA	Mitigation is not required because Project impacts would be less than significant with the implementation of regulatory compliance measures. Nevertheless the

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protecting biological resources, such as a tree preservation policy or ordinance.	Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts related to conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, that are in the jurisdiction and responsibility of local jurisdictions and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to comply with county, city and local policies or ordinances, protecting biological resources, such as tree preservation policies or ordinances, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Consult with the appropriate local agency responsible for the administration of the policy or ordinance protecting biological resources. • Prioritize retention of trees on-site consistent with local regulations. Provide adequate protection during the construction period for any trees that are to remain standing, as recommended by a certified arborist. • If specific project area trees are designated as "Protected Trees," "Landmark Trees," or "Heritage Trees," obtain approval for encroachment or removals through the appropriate entity, and develop appropriate mitigation measures at that time, to ensure that the trees are replaced. Mitigation trees shall be locally collected native species. • Before the start of any clearing, excavation, construction or other work on the site, securely fence off every protected tree deemed to be potentially endangered by said site work. Keep such fences in place for duration of all such work. Clearly mark all trees to be removed. Establish a scheme for the removal and disposal of logs, brush, earth and other debris that will avoid injury to any protected tree. • Where proposed development or other site work could encroach upon the protected perimeter of any protected tree, incorporate special measures to allow the roots to breathe and obtain water and nutrients. Minimize any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter. Require that no change in existing ground level occur from the base of any protected tree at any time. Require that no burning or use of equipment with an open flame occur near or within the protected perimeter of any protected tree. • Require that no storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees occur from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. Require that no heavy construction equipment or construction materials be operated or stored within a distance from the base of any protected trees. Require that wires, ropes, or other devices not be attached to any protected tree, except as needed for support of the tree. Require that no sign, other than a tag showing the botanical classification, be attached to any protected tree.	Project would be in substantial conformance with these mitigation measures for the reasons stated below. As indicated in the 7940 Lankershim Mixed Use Project Tree Report, prepared by L.A. Design Works, dated October 30, 2018 and contained in Appendix C, there are no protected tree species within the Project Site that would be subject to the protection of Ordinance No. 177404 of the City of Los Angeles Municipal Code (Section 1. Subdivision 12 of Subsection A of Section 12.21, as amended). However, there are 35 existing non-native, non-protected trees that would be removed as part of the Project. The Project would provide 117 trees in total, for a net increase of 82 trees. Any trees removed from the Project Site, would be subject to applicable regulatory compliance measures. All significant (with 8-inch or greater trunk diameter or cumulative trunk diameter or cumulative trunk diameter if multi-trunked, as measured 54 inches above the ground) non-protected trees on the Project Site proposed for removal or planting of any tree in the public right-of-way would be subject to approval of the Board of Public Works. In addition, all trees in the public right-of-way would be provided per the current standards of the Urban Forestry Division of the Department of Public Works, Bureau of Street Services.

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	• Thoroughly spray the leaves of protected trees with water periodically during construction to prevent buildup of dust and other pollution that would inhibit leaf transpiration. • If any damage to a protected tree should occur during or as a result of work on the site, the appropriate local agency will be immediately notified of such damage. If, such tree cannot be preserved in a healthy state, require replacement of any tree removed with another tree or trees on the same site deemed adequate by the local agency to compensate for the loss of the tree that is removed. • Remove all debris created as a result of any tree removal work from the property within two weeks of debris creation, and such debris shall be properly disposed of in accordance with all applicable laws, ordinances, and regulations. • Design projects to avoid conflicts with local policies and ordinances protecting biological resources. • Where avoidance is determined to be infeasible, sufficient conservation measures to fulfill the requirements of the applicable policy or ordinance shall be developed, such as to support issuance of a tree removal permit. The consideration of conservation measures may include: o Avoidance strategies o Contribution of in-lieu fees o Planting of replacement trees at a minimum ratio of 2:1 o Re-landscaping areas with native vegetation post-construction o Other comparable measures.	
BIO-6: Potential to conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	**MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-BIO-4(b)**, and **MM-BIO-5(b)**. **MM-BIO-6(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant impacts on HCP and NCCPs that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with Section 7 or 10(a) of the federal Endangered Species Act or Section 2081 of the California Endangered Species Act; and implementing regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Consult with the appropriate federal, state, and/or local agency responsible for the administration of HCPs, NCCPs or other conservation programs. • Wherever practicable and feasible, the project shall be designed to avoid through project design lands preserved under the conditions of an HCP, NCCP, or other	No mitigations are required. The Project Site is not subject to provisions of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Furthermore, the Project Site is not located within or adjacent to an existing Significant Ecological Area.

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	conservation program. • Where avoidance is determined to be infeasible, sufficient conservation measures to fulfill the requirements of the HCP and/or NCCP or other conservation program, which would include but not be limited to applicable authorization for incidental take pursuant to Section 7 or 10(a) of the federal Endangered Species Act or Section 2081 of the California Endangered Species Act, shall be developed to support issuance of an Incidental take permit or any other permissions required for development within the HCP/NCCP boundaries. The consideration of additional conservation measures would include the measures outlined in **MM-BIO-1(b)**, where applicable.	
Cultural Resources		
CUL-1: Potential to directly or indirectly destroy unique paleontological resources or sites or unique geological features.	**MM-CUL-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on unique paleontological resources or sites and unique geologic features that are within the jurisdiction and responsibility of National Park Service, Office of Historic Preservation, and Native American Heritage Commission, other public agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures consistent with Section 15064.5 of the State CEQA Guidelines capable of avoiding or reducing significant impacts on unique paleontological resources or sites or unique geologic features. Ensure compliance with the National Historic Preservation Act, Section 5097.5 of the Public Resources Code (PRC), state programs pursuant to Sections 5024 and 5024.5 of the PRC, adopted county and city general plans, and other federal, state and local regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Obtain review by a qualified geologist or paleontologist to determine if the project has the potential to require excavation or blasting of parent material with a moderate to high potential to contain unique paleontological sites or resources, or to require the substantial alteration of a unique geologic feature. • Avoid exposure or displacement of parent material with a moderate to high potential to yield unique paleontological resources. • Where avoidance of parent material with a moderate to high potential to yield unique paleontological resources is not feasible: o All on-site construction personnel receive Worker Education and Awareness Program (WEAP) training to understand the regulatory framework that provides for protection of paleontological resources and become familiar with diagnostic characteristics of the materials with the potential to be encountered. o Prepare a Paleontological Resource Management Plan (PRMP) to guide the salvage, documentation and repository of representative samples of unique	A Cultural and Paleontological Resources Assessment Report was prepared by ICF in September 2019 for the Project which includes a review of the Project's potential for sensitivity of encountering paleontological resources. The proposed excavations for the Project's building foundations are expected to be up to 25 feet deep within the Quaternary young alluvial-fan deposits. These deposits are assigned a low paleontological sensitivity rating. Furthermore, the Project Applicant would be required to comply with the City's standard condition of approval related to the inadvertent discovery of subsurface resources. In the event that any paleontological resources are encountered at the Project Site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, at which time the applicant shall notify the City and consult with a qualified paleontologist to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. With compliance with the condition of approval, impacts

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	paleontological resources encountered during construction. If unique paleontological resources are encountered during excavation or blasting, use a qualified paleontologist to oversee the implementation of the PRMP. o Monitor blasting and earth-moving activities in parent material, with a moderate to high potential to yield unique paleontological resources using a qualified paleontologist or archeologists cross-trained in paleontology to determine if unique paleontological resources are encountered during such activities, consistent with the specified or comparable protocols. o Identify where excavation and earthmoving activity is proposed in a geologic unit having a moderate or high potential for containing fossils and specify the need for a paleontological or archeological (cross-trained in paleontology) to be present during earth-moving activities or blasting in these areas. • Avoid routes and project designs that would permanently alter unique features with archaeological and/or paleontological significance. • Salvage and document adversely affected resources sufficient to support ongoing scientific research and education.	would be less than significant.
CUL-2: Potential to cause a substantial adverse change in the significance of a historical resource, including tribal cultural resources, as defined in CEQA Guidelines Section 15064.5.	**MM-CUL-2(B):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects of [sic] on historical resources within the jurisdiction and responsibility of the Office of Historical Preservation, Native American Heritage Commission, other public agencies, and/or Local Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures consistent with Section 15064.5 of the State CEQA Guidelines capable of avoiding or reducing significant impacts on historical resources, to ensure compliance with the National Historic Preservation Act, Section 5097.5 of the Public Resources Code (PRC), state programs pursuant to Sections 5024 and 5024.5 of the PRC, adopted county and city general plans and other federal, state and local regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Pursuant to CEQA Guidelines Section 15064.5, conduct a record search at the appropriate Information Center to determine whether the project area has been previously surveyed and whether historic resources were identified. • Obtain a qualified architectural historian to conduct historic architectural surveys as recommended by the Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for historical resources within 1,000 feet of the project. • Comply with Section 106 of the National Historic Preservation Act including, but not limited to, projects for which federal funding or approval is required for the	Mitigation is not required because Project impacts would be less than significant with the implementation of regulatory compliance measures. Nevertheless, the Project would be substantially in conformance with SCAG MM-CUL-2(b), as provided below. Pursuant to CEQA Guidelines Section 15064.5, a Historic Resources Assessment (HRA) Report was prepared for the Project, which satisfies the requirements set forth in SCAG MM-CUL-2(b) to identify if previously evaluated or previously unknown historical resources are present. As discussed in the Project's HRA, neither of the two buildings on the Project Site (7916-7918 Lankershim Boulevard, and 7934 Lankershim Boulevard) that would be demolished as part of the Project, qualify as historical resources under CEQA. The buildings were not identified by SurveyLA as historically significant and were not listed or is eligible for listing, in the National Register, the California Register, or as a City of Los Angeles Historic-Cultural Monument. Therefore, the Project's associated demolition of these structures would have no direct impact to historical resources on the Project Site.

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	individual project. This law requires federal agencies to evaluate the impact of their actions on resources included in or eligible for listing in the National Register. Federal agencies must coordinate with the State Historic Preservation Officer in evaluating impacts and developing mitigation. These mitigation measures may include, but are not limited to the following: o Employ design measures to avoid historical resources and undertake adaptive reuse where appropriate and feasible. If resources are to be preserved, as feasible, carry out the maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction in a manner consistent with the Secretary of the Interior's Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings. If resources would be impacted, impacts should be minimized to the extent feasible. o Where feasible, noise buffers/walls and/or visual buffers/landscaping should be constructed to preserve the contextual setting of significant built resources. • Secure a qualified environmental agency and/or architectural historian, or other such qualified person to document any significant historical resource(s), by way of historic narrative, photographs, and architectural drawings, as mitigation for the effects of demolition of a resource. • Consult with the Native American Heritage Commission to determine whether known sacred sites are in the project area, and identify the Native American(s) to contact to obtain information about the project site. • Prior to construction activities, obtain a qualified archaeologist to conduct a record search at the appropriate Information Center of the California Archaeological Inventory to determine whether the project area has been previously surveyed and whether resources were identified. • Prior to construction activities, obtain a qualified archaeologist or architectural historian (depending on applicability) to conduct archaeological and/or historic architectural surveys as recommended by the Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources. • If a record search indicates that the project is located in an area rich with cultural materials, retain a qualified archaeologist to monitor any subsurface operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property. • Conduct construction activities and excavation to avoid cultural resources (if identified). If avoidance is not feasible, further work may be needed to determine the importance of a resource. Retain a qualified archaeologist familiar with the local archaeology, and/or as appropriate, an architectural historian who should make	As discussed in the Project's Historic Resources Technical Report, within a one to five parcel radius of the Project Site, 35 potential historic resources were constructed prior to 1981. None of these resources were identified as eligible by SurveyLA, nor were they documented as a historical resource. None appear to qualify as a CEQA historical resource. As such, the Project's indirect impacts would be less than significant. The Project also substantially complies with this mitigation measure as a Cultural and Paleontological Resources Assessment Report was prepared for the Project in September 2019 that included analysis of the Project's potential for encouraging archeological resources. As determined in the Cultural and Paleontological Resources Assessment Report, the Project would not be expected to result in significant impacts on archaeological cultural resources as there are no known previously recorded archaeological resources within the Project area. Based on historical disturbance and construction in the area, the sensitivity for intact buried archaeological deposits of historic age within the Project area is relatively low. Furthermore, Per California Public Resources Code Section21083.2(f), a lead agency may make provisions for archeological sites accidently discovered during construction. The Project Applicant would be required to comply with the City's standard condition of approval related to inadvertent discovery of unknown archaeological resources. In the event that any subsurface cultural resources are encountered at the Project Site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, pursuant to State Health and Safety Code Section 7050.5. At which time the applicant shall notify the City and consult with a qualified archaeologist who shall evaluate the find in accordance with federal, state, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, and shall determine the necessary findings as to the origin and disposition to assess the significance of the

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	recommendations regarding the work necessary to determine importance. If the cultural resource is determined to be important under state or federal guidelines, impacts on the cultural resource will need to be mitigated. • Stop construction activities and excavation in the area where cultural resources are found until a qualified archaeologist can determine the importance of these resources.	find. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Compliance with this condition would ensure that Project impacts related to unknown archaeological resources would be less than significant.
CUL-3: Potential to cause a substantial adverse change in the significance of an archaeological resource, including tribal cultural resources, pursuant to CEQA Guidelines Section 15064.5.	**MM-CUL-2(b)**.	Mitigation is not required because Project impacts would be less than significant with the implementation of standard City conditions of approval applicable to the Project. Nevertheless the Project substantially complies with this mitigation measure. A Cultural and Paleontological Resources Assessment Report prepared by ICF in September 2019 for the Project which includes a review of the Project's potential for sensitivity for encountering archeological resources. As determined in the Cultural and Paleontological Resources Assessment Report, the Project would not be expected to result in significant impacts on archaeological cultural resources as there no known previously recorded archaeological resources within the Project area. Based on historical disturbance and construction in the area, the sensitivity for intact buried archaeological deposits of historic age within the Project area is relatively low. Furthermore, Per California Public Resources Code Section21083.2(f), a lead agency may make provisions for archeological sites accidently discovered during construction.

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		The Project Applicant would be required to comply with the City's standard condition of approval related to inadvertent discovery of unknown archaeological resources. In the event that any subsurface cultural resources are encountered at the Project Site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, pursuant to State Health and Safety Code Section 7050.5. At which time the applicant shall notify the City and consult with a qualified archaeologist who shall evaluate the find in accordance with federal, state, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, and shall determine the necessary findings as to the origin and disposition to assess the significance of the find. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Compliance with this condition would ensure that Project impacts related to unknown archaeological resources, including tribal resources would be less than significant.
CUL-4: Potential to disturb human remains, including those interred outside of formal cemeteries, including Native American Sacred Sites.	**MM-CUL-4(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects to human remains that are within the jurisdiction and responsibility of the Native American Heritage Commission, other public agencies, and/or Local Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency should consider mitigation measures capable of avoiding or reducing significant impacts on human remains, to ensure compliance with the California Health and Safety Code, Section 7060 and Section 18950-18961 and Native American Heritage Commission, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • In the event of discovery or recognition of any human remains during construction or excavation activities associated with the project, in any location other than a dedicated cemetery, cease further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the coroner of the county in which the remains are discovered has been informed and has determined	Mitigation is not required because Project impacts would be less than significant with the implementation of regulatory compliance measures. Nevertheless the Project substantially complies with this mitigation measure. If human remains are encountered during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition, pursuant to PRC Section 5097.98. If the county coroner concludes that the remains are of Native American descent, the Native American Heritage Commission must be notified within 24 hours, and NAHC guidelines would be adhered to in the treatment and handling of the remains. With regulatory compliance, any potential significant impacts of the

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	that no investigation of the cause of death is required. • If any discovered remains are of Native American origin: o Contact the County Coroner to contact the Native American Heritage Commission to ascertain the proper descendants from the deceased individual. The coroner should make a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods. This may include obtaining a qualified archaeologist or team of archaeologists to properly excavate the human remains. o If the Native American Heritage Commission is unable to identify a descendant, or the descendant failed to make a recommendation within 24 hours after being notified by the commission, obtain a Native American monitor, and an archaeologist, if recommended by the Native American monitor, and rebury the Native American human remains and any associated grave goods, with appropriate dignity, on the property and in a location that is not subject to further subsurface disturbance where the following conditions occur: ▪ The Native American Heritage Commission is unable to identify a descendent; ▪ The descendant identified fails to make a recommendation; or ▪ The landowner or their authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.	Project related to this threshold would be less than significant.
Energy		
EN-1: Potential to increase petroleum and nonrenewable fuel consumption in the regional transportation system.	No mitigation required.	No mitigation is required.
EN-2: Potential to increase residential energy consumption use.	**MM-EN-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects of increased residential energy consumption that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with CALGreen, local building codes, and other applicable laws and regulations governing residential building standards, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency:	Mitigation is not required because Project impacts would be less than significant. Nevertheless, the Project substantially conforms with this mitigation measure, because the Project the incorporates project design feature identified below and would comply or exceed the existing City regulatory requirements. The Project would be constructed to meet or exceed energy standards outlined in the City's Green Building Code, which incorporates the requirements of CALGreen. The Project includes the following Project Design Feature that

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	• Integrate green building measures consistent with CALGreen into project design including: o Use energy efficient materials in building design, construction, rehabilitation, and retrofit. o Install energy-efficient lighting, heating, and cooling systems (cogeneration); water heaters; appliances; equipment; and control systems. o Reduce lighting, heating, and cooling needs by taking advantage of light colored roofs, trees for shade, and sunlight. o Incorporate passive environmental control systems that account for the characteristics of the natural environment. o Use high-efficiency lighting and cooking devices. o Incorporate passive solar design. o Use high-reflectivity building materials and multiple glazing. o Prohibit gas-powered landscape maintenance equipment. o Install electric vehicle charging stations. o Reduce wood burning stoves or fireplaces. o Provide bike lanes accessibility and parking at residential developments.	includes sustainability features associated with the Project. PDF GHG-1 • The Project shall install energy efficient appliances. • The Project shall install low-flow plumbing fixtures. • The Project shall provide 19 short-term and 183 long-term bicycle parking spaces at the Project Site. • The Project shall plant a total of 117 trees, 15 of which would be street trees, along with native and drought-tolerant vegetation such as shrubs and ground cover. • The Project shall install solar panels on 15 percent of the rooftop space of the proposed mixed-use building. • The Project shall install prewiring for electrical vehicle (EV) charging for 30 percent of the total parking spaces provided at the Project Site. • The Project shall provide EV parking spaces that are installed with chargers and ready for immediate EV use for 10 percent of the total parking spaces provided at the Project Site. • The Project shall not provide any indoor fireplaces for residential units. • The Project shall install outdoor power outlets to facilitate the use of electric landscaping equipment for maintaining common areas. • The Project shall enroll in the organic waste recycling services provided by the solid waste collection service provider and ensure that compostable receptacles will be provided for the multi-family uses to reduce landfilled waste.
EN-3: Potential to increase building energy consumption in anticipated development.	**MM-EN-2(b)**.	The Project's impacts are less than significant so mitigation is not required. Nevertheless, the Project substantially conforms to this mitigation measure through the Project's design features (PDF-GHG-1) and regulatory compliance measures. The Project Site will be constructed to meet and would be required to comply

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		with the City's Green Building Code Title 24, which incorporates the requirements of CALGreen.
EN-4: Potential to increase water consumption and energy use related to water in anticipated development.	No mitigation required.	No mitigation is required.
Geology and Soils		
GEO-1: Potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving (i) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (ii) strong seismic ground shaking; (iii) seismic related ground-failure, including liquefaction; (iv) landslides.	**MM-GEO-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on the potential for projects to result in the exposure of people and infrastructure to the effects of earthquakes, seismic related ground-failure, liquefaction, and seismically induced landslides, that are in the jurisdiction and responsibility of public agencies, regulatory agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with County and City Public Works and Building and Safety Department Standards, the Uniform Building Code (UBC) and the California Building Code (CBC), and other applicable laws and regulations governing building standards, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Consistent with Section 4.7.2 of the Alquist-Priolo Earthquake Fault Zoning Act, conduct a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. An evaluation and written report of a specific site can and should be prepared by a licensed geologist. If an active fault is found and unfit for human occupancy over the fault, place a setback of 50 feet from the fault. • Use site-specific fault identification investigations conducted by licensed geotechnical professionals in accordance with the requirements of the Alquist-Priolo Act, as well as any applicable Caltrans regulations that exceed or reasonably replace the requirements of the Act to either determine that the anticipated risk to people and property is at or below acceptable levels or site- specific measures have been incorporated into the project design, consistent with the CBC and UBC. • Ensure that projects located within or across Alquist-Priolo Zones comply with design requirements provided in Special Publication 117, published by the California Geological Survey, as well as relevant local, regional, state, and federal design criteria for construction in seismic areas. • Consistent with the CBC and local regulatory agencies with oversight of development associated with the Plan, ensure that projects are designed in accordance with county and city code requirements for seismic ground shaking. With respect to design, consider seismicity of the site, soil response at the site, and	The City has determined that the Project already substantially conforms to this mitigation measure, because the Project would be required to comply with the existing seismic design provisions and regulations associated with the City of Los Angeles Building Code, which incorporates the 2016 Uniform Building Code (UBC) and 2016 California Building Code (CBC). The 2016 edition of the CBC is based on the 2015 International Building Code (IBC) published by the International Code Council, which replaced the Uniform Building Code. The 2016 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. Furthermore, construction would not exacerbate existing physical conditions pertaining to seismic hazards. A Geotech Report and Soils Report has been submitted to the City and has been approved by the City of Los Angeles Department of Building and Safety on April 28, 2020. Moreover, the Project is subject to regulatory compliance measures, which avoid and/or reduce the significant effects on the potential for projects to result in the exposure of people and infrastructure to the effects of earthquakes, seismic related ground-failure, liquefaction, and seismically induced landslides.

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	dynamic characteristics of the structure, in compliance with the appropriate California Building Code and State of California design standards for construction in or near fault zones, as well as all standard design, grading, and construction practices in order to avoid or reduce geologic hazards. • Consistent with the CBC and local regulatory agencies with oversight of development associated with the Plan, ensure that site-specific geotechnical investigations conducted by a qualified geotechnical expert be required prior to preparation of project designs. These investigations shall identify areas of potential expansive soils and recommend remedial geotechnical measures to eliminate any problems. Recommended corrective measures, such as structural reinforcement and replacing soil with engineered fill, shall be implemented in project designs. Geotechnical investigations identify areas of potential failure and recommend remedial geotechnical measures to eliminate any problems. • Adhere to design standards described in the CBC and all standard geotechnical investigation, design, grading, and construction practices to avoid or reduce impacts from earthquakes, ground shaking, ground failure, and landslides. • Consistent with the CBC and local regulatory agencies with oversight of development associated with the Plan, design projects to avoid geologic units or soils that are unstable, expansive soils and soils prone to lateral spreading, subsidence, liquefaction, or collapse wherever feasible.	
GEO-2: Potential to result in substantial soil erosion or the loss of topsoil.	**MM-GEO-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on the potential for projects to result in substantial soil erosion or the loss of topsoil, that are in the jurisdiction and responsibility of public agencies, regulatory agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with County and City Public Works and Building and Safety Department Standards, the Uniform Building Code (UBC) and the California Building Code (CBC), and other applicable laws and regulations governing building standards, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Consistent with the CBC and local regulatory agencies with oversight of development associated with the Plan, ensure that site-specific geotechnical investigations conducted by a qualified geotechnical expert are conducted to ascertain soil types prior to preparation of project designs. These investigations can and should identify areas of potential failure and recommend remedial geotechnical measures to eliminate any problems. • Consistent with the requirements of the State Water Resources Control Board (SWRCB) for projects over one acre in size, obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by	The Project would result in less than significant impacts as a result of compliance with regulatory requirements, but nonetheless substantially conforms with this mitigation measures A Geotech Report and Soils Report has been submitted to the City and has been approved by the City of Los Angeles Department of Building and Safety on April 28, 2020. These regulatory requirements require compliance with existing quality standards as governed by the Los Angeles Regional Water Quality Control Board (LARWQCB) would apply under Chapter IX, Division 70 of the LAMC addresses grading, excavation, and fills, which are permitted by the Department of Building and Safety. No grading permits are issued without assurance of compliance with Best Management Practices (BMPs) to reduce erosion during grading, excavation, and fill. The Project would be subject to the City's Stormwater and Urban Runoff Pollution Control regulations (Ordinance No. 172,176 and No. 173,494) to ensure pollutant loads from the Project Site would be

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	the SWRCB and conduct the following: o File a Notice of Intent (NOI) with the SWRCB. o Prepare a stormwater pollution prevention plan (SWPPP) and submit the plan for review and approval by the Regional Water Quality Control Board (RWQCB). At a minimum, the SWPPP should include a description of construction materials, practices, and equipment storage and maintenance; a list of pollutants likely to contact stormwater; site-specific erosion and sedimentation control practices; a list of provisions to eliminate or reduce discharge of materials to stormwater; best management practices (BMPs); and an inspection and monitoring program. o Submit to the RWQCB a copy of the SWPPP and evidence of submittal of the NOI to the SWRCB. Implementation of the SWPPP should start with the commencement of construction and continue through the completion of the project. o After construction is completed, the project sponsor can and should submit a notice of termination to the SWRCB. • Consistent with the requirements of the SWRCB and local regulatory agencies with oversight of development associated with the Plan, ensure that project designs provide adequate slope drainage and appropriate landscaping to minimize the occurrence of slope instability and erosion. Design features should include measures to reduce erosion caused by storm water. Road cuts should be designed to maximize the potential for revegetation. • Consistent with the CBC and local regulatory agencies with oversight of development associated with the Plan, ensure that, prior to preparing project designs, new and abandoned wells are identified within construction areas to ensure the stability of nearby soils.	minimized for downstream receiving waters. Compliance with the NPDES and implementation of the SWPPP and BMPs, as well as the City's discharge requirements would ensure that construction stormwater runoff would not violate water quality and/or discharge requirements. Also, during operation the Project would be required to comply with the City's Low Impact Development (LID) Ordinance. The LID Ordinance applies to all development and redevelopment in the City that requires a building permit. LID Plans are required to include a site design approach and BMPs that address runoff and pollution at the source. Further, to comply with LID Ordinance the Project would be required to capture and treat the first 3/4-inch of rainfall in accordance with established stormwater treatment priorities. Compliance with the LID Ordinance would reduce the amount of surface water runoff leaving the Project Site as compared to the current conditions. Compliance with the LID Plan and Standard Urban Stormwater Mitigation Plan (SUSMP), including the implementation of BMPs, would ensure that operation of the Project would not cause soil erosion or the loss of topsoil. The Project would also comply with the permitting requirements under the National Pollutant Discharge Elimination System (NPDES) stormwater permitting program is administered by the SWRCB through the nine RWQCBs. SWRCB Order No. 2009-0009-DWQ (as amended by 2010-0014-DWQ and 2012-006-DWQ) established the statewide NPDES Construction General Permit for stormwater discharges from construction sites. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects. For all construction activities disturbing more than one acre of land, the Construction General Permit mandates the development and implementation of a SWPPP. The SWPPP documents the selection and implementation of BMPs for the specific construction project, charging the Owner of the Project with stormwater quality

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		management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit. The Construction General Permit regulates construction activity including clearing, grading, and excavation of areas one acre or more in size and prohibits the discharge of materials other than stormwater, authorized non-stormwater discharges, and all discharges that contain a hazardous substance, unless a separate NPDES permit has been issued for those discharges. A SWPPP is meant to identify potential sources and types of pollutants associated with the construction activity and to list the BMPs that would prohibit those pollutants from being discharged from the construction site into the public storm drain system. BMPs typically address stabilization of construction areas, minimization of erosion during construction, sediment control, control of pollutants from construction materials, and post-construction stormwater management (e.g., minimization of impervious surfaces or treatment of stormwater runoff). The SWPPP is also required to include a discussion of the proposed program to inspect and maintain all BMPs.
GEO-3: Potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	**MM-GEO-1(b)**.	Mitigation is not required because Project impacts would be less than significant. Nevertheless, the Project substantially conforms to this mitigation measure. As concluded in the Geotechnical Report prepared for the Project, the Project would not contain uses or activities that would exacerbate existing environmental conditions. A Geotech Report and Soils Report has been submitted to the City and has been approved by the City of Los Angeles Department of Building and Safety on April 28, 2020. In addition, the Project's impacts would be less than significant as a result of required compliance with applicable state and City building codes.
GEO-4: Potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform	**MM-GEO-1(b)**.	No mitigation is required. As stated in the Geotechnical Report, the Project Site's subsurface materials are generally granular and are expected to have a low potential for expansion. Regardless, the Project would be

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Building Code (1994), creating substantial risks to life or property.		required to adhere to applicable provisions of the City's Building Code, which would address any potential for expansion. The Project would not contain uses or activities that would exacerbate existing environmental conditions. In addition, the Project's impacts would be less than significant as a result of required compliance with applicable state and City building codes.
GEO-5: Potential to have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.	No mitigation required.	No mitigation is required.
Greenhouse Gas Emissions		
GHG-1: Potential to directly or indirectly result in an increase in GHG emissions compared to existing conditions (2015).	No mitigation required.	No mitigation is required.
GHG-2: Potential to conflict with SB 375 GHG Emission Reduction Targets.	No mitigation required.	No mitigation is required.
GHG-3: Potential to conflict with AB 32 and or any applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.	No mitigation required.	No mitigation is required.
GHG Cumulative Impacts	**MM-GHG-3(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the potential to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases that are within the jurisdiction and authority of California Air Resources Board, local air districts, and/or Lead Agencies.	Mitigation is not required because Project impacts would be less than significant. Nevertheless, the Project substantially conforms with this mitigation measure as it is consistent with State, regional, and City of Los Angeles GHG emission reduction goals and objectives;

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	Where the Lead Agency has identified that a project has the potential to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases, the Lead Agency can and should consider mitigation measures to mitigate the significant effects of greenhouse gas impacts to ensure compliance with all applicable laws, regulations, governing CAPs, general plans, adopted policies and plans of local agencies, and standards set forth by responsible public agencies for the purpose of reducing emissions of greenhouse gases, as applicable and feasible. Consistent with Section 15126.4(c) of the State CEQA Guidelines, compliance can be achieved through adopting greenhouse gas mitigation measures that have been used for projects in the SCAG region as set forth below, or through comparable measures identified by Lead Agency: • Measures in an adopted plan or mitigation program for the reduction of emissions that are required as part of the Lead Agency's decision. • Reduction in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines. • Off-site measures to mitigate a project's emissions. • Measures that consider incorporation of Best Available Control Technology (BACT) during design, construction and operation of projects to minimize GHG emissions, including but not limited to: o Use energy and fuel efficient vehicles and equipment. Project proponents are encouraged to meet and exceed all EPA/NHTSA/CARB standards relating to fuel efficiency and emission reduction; o Use alternative (non-petroleum based) fuels; o Deployment of zero- and/or near zero emission technologies as defined by CARB; o Use lighting systems that are energy efficient, such as LED technology; o Use the minimum feasible amount of GHG-emitting construction materials that is feasible; o Use cement blended with the maximum feasible amount of fly ash or other materials that reduce GHG emissions from cement production; o Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste reduction, recycling, and reuse; o Incorporate passive solar and other design measures to reduce energy consumption and increase production and use of renewable energy; o Incorporate design measures like WaterSense fixtures and water capture to reduce water consumption;	therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. The Project would be consistent with the Los Angeles Green Building Code, which would reduce GHG emissions by complying with Title 24 Building Energy Efficiency Standards, as amended by the City, and installing Energy Star appliances. The Project would install prewiring for electrical vehicle (EV) charging for 30 percent of the total parking spaces provided at the Project Site. The Project would also provide EV parking spaces that are installed with chargers and ready for immediate EV use for 10 percent of the total parking spaces provided at the Project Site. And finally, pursuant to California Public Resources Code Sections 21155.2 and 21159.28, a SCEA prepared for a TPP that is consistent with the 2016-2040 RTP/SCS and its applicable mitigation measures does not need to prepare or discuss project specific or cumulative GHG emission impacts associated with car or light-duty truck trips. The following GHG emissions-reducing PDF would be incorporated into the Project: **PDF-GHG-1:** • The Project shall install energy efficient appliances. • The Project shall install low-flow plumbing fixtures. • The Project shall provide 19 short-term and 183 long-term bicycle parking spaces at the Project Site. • The Project shall plant a total of 117 trees, 15 of which would be street trees, along with native and drought-tolerant vegetation such as shrubs and ground cover. • The Project shall install solar panels on 15 percent of the rooftop space of the proposed mixed-use building. • The Project shall install prewiring for electrical vehicle (EV) charging for 30 percent of the total parking spaces provided at the Project Site. • The Project shall provide EV parking spaces that are

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	o Use lighter-colored pavement where feasible; o Recycle construction debris to maximum extent feasible; o Protect and plant shade trees in or near construction projects where feasible; and o Solicit bids that include concepts listed above. • Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to, transit-active transportation coordinated strategies, increased bicycle carrying capacity on transit and rail vehicles. • Incorporating bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; providing adequate bicycle parking and planning for and building local bicycle projects that connect with the regional network. • Improving transit access to rail and bus routes by incentives for construction of transit facilities within developments, and/or providing dedicated shuttle service to transit stations. • Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs. • Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles. • Land use siting and design measures that reduce GHG emissions, including: o Developing on infill and brownfields sites; o Building high density and mixed-use developments near transit; o Retaining on-site mature trees and vegetation, and planting new canopy trees; o Measures that increase vehicle efficiency, encourage use of zero and low emissions vehicles, or reduce the carbon content of fuels, including constructing or encouraging construction of electric vehicle charging stations or neighborhood electric vehicle networks, or charging for electric bicycles; and o Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.	installed with chargers and ready for immediate EV use for 10 percent of the total parking spaces provided at the Project Site. • The Project shall not provide any indoor fireplaces for residential units. • The Project shall install outdoor power outlets to facilitate the use of electric landscaping equipment for maintaining common areas. • The Project shall enroll in the organic waste recycling services provided by the solid waste collection service provider and ensure that compostable receptacles will be provided for the multi-family uses to reduce landfilled waste. Implementation of PDF-GHG-1 would reduce energy, conserve water, reduce waste generation, and reduce vehicle travel consistent with statewide strategies and regulations. As a result, the Project would not conflict with applicable Climate Change Scoping Plan strategies and regulations to reduce GHG emissions. The Project Site is an infill location close to jobs, off-site housing, and services and in close proximity to existing and future public transit stops, which would result in reduced VMT, as compared to a project of similar size and land uses at a location without close and walkable access to off-site destinations and public transit stops. Thus, the Project would be consistent with SCAG's 2016–2040 RTP/SCS alignment of transportation, land use, and housing strategies, as the Project would accommodate increases in population, households, employment, and travel demand by implementing smart land use strategies. The Project would also be consistent with applicable City GHG emissions reduction plans, policies, and regulations, including the City's LA Green Plan and the City's Sustainable City pLAn.
Hazards and Hazardous Materials		
HAZ-1: Potential to create a significant hazard to the public or the environment through	**MM-HAZ-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects related to the routine transport, use or disposal of hazardous	Mitigation is not required because Project impacts would be less than significant. Nevertheless, the Project substantially conforms with this mitigation measure as

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the routine transport, use, or disposal of hazardous materials.	materials that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the provisions of the Hazardous Waste Control Act, the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, the Hazardous Waste Source Reduction and Management Review Act of 1989, the California Vehicle Code, and other applicable laws and regulations, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Where the construction or operation of projects involves the transport of hazardous material, provide a written plan of proposed routes of travel demonstrating use of roadways designated for the transport of such materials. • Where the construction or operation of projects involves the transport of hazardous materials, avoid transport of such materials within one-quarter mile of schools, when school is in session, wherever feasible. • Where it is not feasible to avoid transport of hazardous materials, within one-quarter mile of schools on local streets, provide notification of the anticipated schedule of transport of such materials. • Specify the need for interim storage and disposal of hazardous materials to be undertaken consistent with applicable federal, state, and local statutes and regulations in the plans and specifications of the transportation improvement project. • Submit a Hazardous Materials Business/Operations Plan for review and approval by the appropriate local agency. Once approved, keep the plan on file with the Lead Agency (or other appropriate government agency) and update, as applicable. The purpose of the Hazardous Materials Business/Operations Plan is to ensure that employees are adequately trained to handle the materials and provides information to the local fire protection agency should emergency response be required. The Hazardous Materials Business/Operations Plan should include the following: o The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids. o The location of such hazardous materials. o An emergency response plan including employee training information. o A plan that describes the manner in which these materials are handled, transported and disposed. • Specify the appropriate procedures for interim storage and disposal of hazardous materials, anticipated to be required in support of operations and maintenance activities, in conformance with applicable federal, state, and local statutes and regulations, in the Operations Manual for projects.	discussed below. Typical of many construction projects, construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. However, all materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Also, all construction work would be performed consistent with applicable federal Occupational Safety and Health Administration (OSHA) Safety and Health Standards and Cal/OSHA requirements to ensure the safety and well-being of construction workers. As the existing onsite buildings were constructed prior to the 1978 federal regulations banning the use of lead-based paints (LBPs). Therefore, there is potential for the presence of LBPs in the onsite buildings. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to Cal/OSHA regulations. Furthermore, the City of Los Angeles maintains specific code requirements when developments find lead-based paint. All construction activities would occur in adherence with these regulations guiding such activities to minimize any upset or accident release of hazardous materials into the environment. With regulatory compliance, the risk related to any existing LBPs at the Project Site would be reduced to acceptable levels, and the Project would result in no impact with regard to LBPs. As the onsite structures were built before the 1978 federal regulations banning the use of asbestos containing building materials (ACBMs) were enacted, there is a potential for the presence of ACBMs in the on-site buildings. The EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) requires that an asbestos survey adhering to Asbestos Hazard Emergency Response Act (AHERA) sampling protocol be performed prior to demolition or renovation activities that may disturb ACMs. This requirement may be enforced by the local air pollution control or air quality

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	• Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction. • Avoid overtopping construction equipment fuel gas tanks. • During routine maintenance of construction equipment, properly contain and remove grease and oils. • Properly dispose of discarded containers of fuels and other chemicals.	management district, and specifies that all suspect asbestos-containing materials (ACMs) be sampled to determine the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or residential occupants. With regulatory compliance, the risk related to any existing ACBMs at the Project Site would be reduced to acceptable levels, and the Project would result in no impact with regard to ACBMs and would not Operation of the Project's residential and commercial uses would involve the use and storage of small quantities of potentially hazardous materials in the form of typical cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance. The use of these materials would be in small quantities and in accordance with the manufacturers' instructions for use, storage, and disposal of such products. Therefore, with compliance with applicable regulations, the Project's potential impacts would be less than significant.
HAZ-2: Potential to create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	**MM-HAZ-1(b)**.	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance measures. Nevertheless, the Project substantially conforms with this mitigation measure. Construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils typical of construction projects. However, all materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Also, all construction work would be performed consistent with applicable federal Occupational Safety and Health Administration (OSHA) Safety and Health Standards and Cal/OSHA requirements to ensure the safety and well-being of construction workers. As the majority of the onsite structures were built before the 1978 federal regulations banning the use of asbestos containing building materials (ACBMs) were enacted, there is a potential for the presence of ACBMs in the on-site buildings. If ACBMs are found to be present, they

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		would be abated in compliance with the SCAQMD Rule 1403 and other applicable State and federal rules and regulations. With regulatory compliance, the risk related to any existing ACBMs at the Project Site would be reduced to acceptable levels, and the Project would result in no impact with regard to ACBMs. As the existing onsite buildings were constructed prior to the 1978 federal regulations banning the use of lead-based paints (LBPs). Therefore, there is potential for the presence of LBPs in the onsite buildings. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to Cal/OSHA regulations. With regulatory compliance, the risk related to any existing LBPs at the Project Site would be reduced to acceptable levels, and the Project would result in no impact with regard to LBPs. The City has determined that, with compliance with applicable regulations, the Project's potential impacts would be less than significant.
HAZ-3: Potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school.	**MM-HAZ-1(b)**.	Mitigation is not required because Project impacts would be less than significant. Nevertheless, the Project substantially conforms with this mitigation measure. Construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils typically used in construction. The types of potentially hazardous substances and materials that would be used in association with the operation of the Project would include those typical of residential and commercial developments, such as small quantities of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance. However, all such substances and materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. With compliance to applicable laws, regulations, and manufacturers' instructions, construction of the Project would not create a significant risk of exposure to

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		hazardous materials for the public or the environment, including schools.
HAZ-4: Potential to be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.	**MM-HAZ-4(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines; SCAG has identified mitigation measures capable of avoiding or reducing the significant effects related to a project placed on a hazardous materials site, that are in the jurisdiction and responsibility of regulatory agencies, other public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the provisions of the Government Code Section 65962.5, Occupational Safety and Health Code of 197; the Response Conservation, and Recovery Act; the Comprehensive Environmental Response, Compensation, and Liability Act; the Hazardous Materials Release and Clean-up Act, and the Uniform Building Code, and County and City building standards, and all applicable federal, state, and local laws and regulations governing hazardous waste sites, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Complete a Phase I Environmental Site Assessment, including a review and consideration of data from all known databases of contaminated sites, during the process of planning, environmental clearance, and construction for projects. • Where warranted due to the known presence of contaminated materials, submit to the appropriate agency responsible for hazardous materials/wastes oversight a Phase II Environmental Site Assessment report if warranted by a Phase I report for the project site. The reports should make recommendations for remedial action, if appropriate, and be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. • Implement the recommendations provided in the Phase II Environmental Site Assessment report, where such a report was determined to be necessary for the construction or operation of the project, for remedial action. • Submit a copy of all applicable documentation required by local, state, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II Environmental Site Assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans. • Conduct soil sampling and chemical analyses of samples, consistent with the protocols established by the U.S. EPA to determine the extent of potential contamination beneath all underground storage tanks (USTs), elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition or construction activities would potentially affect a particular development or building. • Consult with the appropriate local, state, and federal environmental regulatory	No mitigation is required. The Project Site is not currently listed on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to the Phase I Environmental Site Assessment prepared on November 21, 2017, due to the age on on-site buildings, lead-based paint may be present on the Project Site. Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to CalOSHA regulations. Furthermore, the City of Los Angeles maintains specific code requirements when developments find lead-based paint. All construction activities would occur in adherence with these regulations guiding such activities to minimize any upset or accident release of hazardous materials into the environment. With regulatory compliance, the risk related to any existing LBPs at the Project Site would be reduced to acceptable levels, and the Project would result in no impact with regard to LBPs and would not create a significant hazard to the public or the environment. As the onsite structures were built before the 1978 federal regulations banning the use of asbestos containing building materials (ACBMs) were enacted, there is a potential for the presence of ACBMs in the on-site buildings. The EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) requires that an asbestos survey adhering to Asbestos Hazard Emergency Response Act (AHERA) sampling protocol be performed prior to demolition or renovation activities that may disturb ACMs. This requirement may be enforced by the local air pollution control or air quality management district, and specifies that all suspect asbestos-containing materials (ACMs) be sampled to determine the presence or absence of asbestos prior to any renovation or demolition activities to prevent potential exposure to workers and/or residential occupants.

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	agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps. • Obtain and submit written evidence of approval for any remedial action if required by a local, state, or federal environmental regulatory agency. • Cease work if soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums, or other hazardous materials or wastes are encountered), in the vicinity of the suspect material. Secure the area as necessary and take all appropriate measures to protect human health and the environment, including but not limited to: notification of regulatory agencies and identification of the nature and extent of contamination. Stop work in the areas affected until the measures have been implemented consistent with the guidance of the appropriate regulatory oversight authority. • Use best management practices (BMPs) regarding potential soil and groundwater hazards. • Soil generated by construction activities should be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off- site facility. Complete sampling and handling and transport procedures for reuse or disposal, in accordance with applicable local, state and federal laws and policies. • Groundwater pumped from the subsurface should be contained on- site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Utilize engineering controls, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building. • Prior to issuance of any demolition, grading, or building permit, submit for review and approval by the Lead Agency (or other appropriate government agency) written verification that the appropriate federal, state and/or local oversight authorities, including but not limited to the Regional Water Quality Control Board (RWQCB), have granted all required clearances and confirmed that the all applicable standards, regulations, and conditions have been met for previous contamination at the site. • Develop, train, and implement appropriate worker awareness and protective measures to assure that worker and public exposure is minimized to an acceptable level and to prevent any further environmental contamination as a result of construction.	Regulations that would be followed during demolition include Construction Safety Orders 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations, and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development (HUD).With regulatory compliance, the risk related to any existing ACBMs at the Project Site would be reduced to acceptable levels, and the Project would result in no impact with regard to ACBMs and would not create a significant hazard to the public or environment.

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	• If asbestos-containing materials (ACM) are found to be present in building materials to be removed, submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations, including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health and Safety Code Section 25915- 25919.7; and other local regulations. • Where projects include the demolitions or modification of buildings constructed prior to 1968, complete an assessment for the potential presence or lack thereof of ACM, lead-based paint, and any other building materials or stored materials classified as hazardous waste by state or federal law. • Where the remediation of lead-based paint has been determined to be required, provide specifications to the appropriate agency, signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: California Occupational Safety and Health Administration's (Cal OSHA's) Construction Lead Standard, Title 8 California Code of Regulations (CCR) Section 1532.1 and Department of Health Services (DHS) Regulation 17 CCR Sections 35001–36100, as may be amended. If other materials classified as hazardous waste by state or federal law are present, the project sponsor should submit written confirmation to the appropriate local agency that all state and federal laws and regulations should be followed when profiling, handling, treating, transporting, and/or disposing of such materials. • Where a project site is determined to contain materials classified as hazardous waste by state or federal law are present, submit written confirmation to appropriate agency that all state and federal laws and regulations should be followed when profiling, handling, treating, transporting, and/or disposing of such materials.	
HAZ-5: Potential for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.	**MM-TRA-5(b)**	No mitigation required. There are no private airstrips in the vicinity of the Project area. However, the Hollywood Burbank (Bob Hope) Airport, at 2627 North Hollywood Way in the City of Burbank, is approximately 1.4 miles southeast of the Project Site. The Project Site is also located 3.5 miles from the Whiteman Airport and 5.6 miles from the Van Nuys Airport. While the Project Site is within two miles of the Hollywood Burbank Airport, the Project Site is not located within the Hollywood Burbank Airport Planning Boundaries/Airport Influence Area (AIA) or subject to the Hollywood Burbank Land Use Planning Contours or height restrictions. Given the distance of the Project Site to the Hollywood Burbank Airport and as the Project is outside the Airport's

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		planning boundaries, noise contours or influence area, the Project would not result in an airport-related safety hazard for people residing or working in the Project area.
HAZ-6: Potential for a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.	No mitigation required.	No mitigation is required.
HAZ-7: Potential to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No mitigation required.	Future driveway and building configurations would comply with applicable fire code requirements for emergency evacuation, including proper emergency exits for patrons, employees, and residents. Project Site access and circulation plans would be subject to review and approval by the Los Angeles Fire Department (LAFD). Furthermore PDF TRAF-4 would ensure that construction related impacts on roadways would be less than significant.
HAZ-8: Potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	**MM-HAZ-8(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from the potential exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands; that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with local general plans, specific plans, and regulations provided by County and City fire departments, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Adhere to fire code requirements, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system. Other fire-resistant measures would be applied to eaves, vents, windows, and doors to avoid any gaps that would allow intrusion by flame or embers. • Adhere to the Multi-Jurisdictional Hazards Mitigation Plan, as well as local general plans, including policies and programs aimed at reducing the risk of wildland fires through land use compatibility, training, sustainable development, brush management, and public outreach.	No mitigation required. The Project Site is located in a fully urbanized area, a City High Fire Severity Zone, and there are no wildlands in the vicinity, and is not near a wildland fire hazard.

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	• Encourage the use of fire-resistant vegetation native to Southern California and/or to the local microclimate (e.g., vegetation that has high moisture content, low growth habits, ignition-resistant foliage, or evergreen growth), eliminate brush and chaparral, and discourage the use of fire-promoting species especially non-native, invasive species (e.g., pampas grass, fennel, mustard, or the giant reed) in the immediate vicinity of development in areas with high fire threat. • Encourage natural revegetation or seeding with local, native species after a fire and discourage reseeding of non-native, invasive species to promote healthy, natural ecosystem regrowth. Native vegetation is more likely to have deep root systems that prevent slope failure and erosion of burned areas than shallow-rooted non-natives. • Submit a fire safety plan (including phasing) to the Lead Agency and local fire agency for their review and approval. The fire safety plan shall include all of the fire safety features incorporated into the project and the schedule for implementation of the features. The local fire protection agency may require changes to the plan or may reject the plan if it does not adequately address fire hazards associated with the project as a whole or the individual phase. • Utilize Fire-wise Land Management by encouraging the use of fire-resistant vegetation and the elimination of brush and chaparral in the immediate vicinity of development in areas with high fire threat. • Promote Fire Management Planning that would help reduce fire threats in the region as part of the Compass Blueprint process and other ongoing regional planning efforts. • Encourage the use of fire-resistant materials when constructing projects in areas with high fire threat.	
Hydrology and Water Quality		
HYD-1: Potential to violate any water quality standards or waste discharge requirements.	**MM-HYD-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the potential impacts on water quality on related waste discharge requirements that are within the jurisdiction and authority of the Regional Water Quality Control Boards and other regulatory agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with all applicable laws, regulations, and health and safety standards set forth by regulatory agencies responsible for regulating and enforcing water quality and waste discharge requirements in a manner that conforms with applicable water quality standards and/or waste discharge requirements, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Complete, and have approved, a Stormwater Pollution Prevention Plan (SWPPP) prior to initiation of construction.	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance measures. Nevertheless, the Project substantially conforms with this mitigation measure because the Project is subject to regulatory compliance measures such as NPDES and SWPPP regulations that are capable of avoiding or reducing the potential impacts on water quality. The Project would comply with waste discharge requirements that are within the jurisdiction and authority of the Regional Water Quality Control Board, the City of Los Angeles Low Impact Development (LID) Ordinance and other regulatory agency requirements including, but not limited to, the NPDES permitting requirements.

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	• Implement Best Management Practices to reduce the peak stormwater runoff from the project site to the maximum extent practicable. • Comply with the Caltrans storm water discharge permit as applicable; and identify and implement Best Management Practices to manage site erosion, wash water runoff, and spill control. • Complete, and have approved, a Standard Urban Stormwater Management Plan, prior to occupancy of residential or commercial structures. • Ensure adequate capacity of the surrounding stormwater system to support stormwater runoff from new or rehabilitated structures or buildings. • Prior to construction within an area subject to Section 404 of the Clean Water Act, obtain all required permit approvals and certifications for construction within the vicinity of a watercourse: o U.S. Army Corps of Engineers (Corps): Section 404. Permit approval from the Corps should be obtained for the placement of dredge or fill material in Waters of the U.S., if any, within the interior of the project site, pursuant to Section 404 of the federal Clean Water Act. o Regional Walter Quality Control Board (RWQCB): Section 401 Water Quality Certification. Certification that the project will not violate state water quality standards is required before the Corps can issue a 404 permit, above. o California Department of Fish and Wildlife (CDFW): Section 1602 Lake and Streambed Alteration Agreement. Work that will alter the bed or bank of a stream requires authorization from CDFW. • Where feasible, restore or expand riparian areas such that there is no net loss of impervious surface as a result of the project. • Install structural water quality control features, such as drainage channels, detention basins, oil and grease traps, filter systems, and vegetated buffers to prevent pollution of adjacent water resources by polluted runoff where required by applicable urban storm water runoff discharge permits, on new facilities. • Provide structural storm water runoff treatment consistent with the applicable urban storm water runoff permit. Where Caltrans is the operator, the statewide permit applies. • Provide operational best management practices for street cleaning, litter control, and catch basin cleaning are implemented to prevent water quality degradation in compliance with applicable storm water runoff discharge permits; and ensure treatment controls are in place as early as possible, such as during the acquisition process for rights-of-way, not just later during the facilities design and construction phase.	

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	• Comply with applicable municipal separate storm sewer system discharge permits as well as Caltrans' storm water discharge permit including long-term sediment control and drainage of roadway runoff. • Incorporate as appropriate treatment and control features such as detention basins, infiltration strips, and porous paving, other features to control surface runoff and facilitate groundwater recharge into the design of new transportation projects early on in the process to ensure that adequate acreage and elevation contours are provided during the right-of-way acquisition process. • Design projects to maintain volume of runoff, where any downstream receiving water body has not been designed and maintained to accommodate the increase in flow velocity, rate, and volume without impacting the water's beneficial uses. Pre-project flow velocities, rates, and volumes must not be exceeded. This applies not only to increases in storm water runoff from the project site, but also to hydrologic changes induced by flood plain encroachment. Projects should not cause or contribute to conditions that degrade the physical integrity or ecological function of any downstream receiving waters. • Provide culverts and facilities that do not increase the flow velocity, rate, or volume and/or acquiring sufficient storm drain easements that accommodate an appropriately vegetated earthen drainage channel. • Upgrade stormwater drainage facilities to accommodate any increased runoff volumes. These upgrades may include the construction of detention basins or structures that will delay peak flows and reduce flow velocities, including expansion and restoration of wetlands and riparian buffer areas. System designs shall be completed to eliminate increases in peak flow rates from current levels. • Encourage Low Impact Development (LID) and incorporation of natural spaces that reduce, treat, infiltrate and manage stormwater runoff flows in all new developments, where practical and feasible. • If a proposed project has the potential to create a major new stormwater discharge to a water body with an established Total Maximum Daily Load (TMDL), a quantitative analysis of the anticipated pollutant loads in the stormwater discharges to the receiving waters should be carried out.	
HYD-2: Potential to substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a	**MM-HYD-2(b):** Consistent with the provisions of the Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the potential impacts to groundwater resources that are within the jurisdiction and authority of the State Water Resources Control Board, Regional Water Quality Control Boards, Water Districts, and other groundwater management agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with applicable laws, regulations, and health and safety standards set forth by federal, state,	The Project's impacts would be less than significant and no mitigation is required. Nevertheless, Project substantially conforms with this mitigation measure because the Project Site is located in an urbanized area that does not contain any significant groundwater recharge areas. While operation of the Project would increase the amount of impervious surface area on the Project Site from 4.7 percent under existing conditions

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lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).	regional, and local authorities that regulate groundwater management, consistent with the provisions of the Groundwater Management Act and implementing regulations, including recharge in a manner that conforms with federal, state, regional, and local standards for sustainable management of groundwater basins, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • For projects requiring continual dewatering facilities, implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project, Construction designs shall comply with appropriate building codes and standard practices including the Uniform Building Code. • Maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. Minimize to the greatest extent possible, new impervious surfaces, including the use of in-lieu fees and off-site mitigation. • Avoid designs that require continual dewatering where feasible. • Avoid construction and siting on groundwater recharge areas, to prevent conversion of those areas to impervious surface. • Reduce hardscape to the extent feasible to facilitate groundwater recharge as appropriate.	to 20 percent after development is completed, due to the size of the Project Site, this would create a small increase in the opportunity for potential increases in recharge. Dewatering during construction or operation of the Project is not anticipated.
HYD-3: Potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site.	**MM-HYD-1(b)**.	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance measures. Nevertheless, the Project substantially conforms to this mitigation measure, because the Project is required to comply with regulatory requirements including NPDES and City requirements, including those requiring the preparation of a Project-specific Stormwater Pollution Prevention Plan (SWPPP) and Best Management Practices (BPMs) to comply with City of Los Angeles Low Impact Development (LID) Ordinance. The proposed stormwater BPMs would include development of a dry well for stormwater runoff. Further, pursuant to the City's LID Ordinance, the Project would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's BMPs.
HYD-4: Potential to substantially alter the	**MM-HYD-1(b)**.	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance

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existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site.		measures. Nevertheless, the Project substantially conforms to this mitigation measure because the Project is required to comply with the following regulatory requirements: the City of Los Angeles's Low Impact Development (LID) design standards, the City of Los Angles Development Best Management Practices Handbook, the Los Angeles Regional Water Quality Control Board requirements, and the National Pollution Discharge Elimination System permit requirements. Because there are no waterbodies within or near the Project Site, flooding is not expected to occur on- or off-site.
HYD-5: Potential to substantially create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff.	**MM-HYD-1(b)**.	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance measures. Nevertheless, the Project substantially conforms to this mitigation measure. Project construction would comply with applicable NPDES and City requirements including those requiring the preparation of a Project-specific Stormwater Pollution Prevention Plan (SWPPP). Pursuant to the City's LID Ordinance, the Project would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's BMPs The Project must comply with all provisions of the NPDES program and other applicable waste discharge requirements (WDRs), as enforced by the LARWQCB. The Project would include appropriate on-site drainage improvements to accommodate anticipated stormwater flows.
HYD-6: Potential to otherwise substantially degrade water quality.	**MM-HYD-1(b)**.	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance measures. Nevertheless, the Project substantially conforms to this mitigation measure, because the Project is required to comply with regulatory requirements, thus, water quality impacts associated with construction and operation of the Project would be less than significant. Therefore, the City has determined that the Project's impacts would be less than significant and no mitigation is required.

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HYD-7: Potential to place housing within a 100- year flood hazard area as mapped on a federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map.	No mitigation required.	No mitigation is required.
HYD-8: Potential to place within a 100-year flood hazard area structures that would impede or redirect flood flows.	**MM-HYD-8(b)**: Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the potential impacts of locating structures that would impede or redirect flood flows in a 100-year flood hazard area that are within the jurisdiction and authority of the Flood Control District, County Public Works Departments, local agencies, regulatory agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with all federal, state, and local floodplain regulations, consistent with the provisions of the National Flood Insurance Program, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Comply with Executive Order 11988 on Floodplain Management, which requires avoidance of incompatible floodplain development, restoration and preservation of the natural and beneficial floodplain values, and maintenance of consistency with the standards and criteria of the National Flood Insurance Program. • Ensure that all roadbeds for new highway and rail facilities be elevated at least one foot above the 100-year base flood elevation. Since alluvial fan flooding is not often identified on FEMA flood maps, the risk of alluvial fan flooding should be evaluated and projects should be sited to avoid alluvial fan flooding. Delineation of floodplains and alluvial fan boundaries should attempt to account for future hydrologic changes caused by global climate change.	No mitigation is required. The Project Site is not, according to the Federal Emergency Management Agency (FEMA) flood insurance rate map, located within a designated flood zone. Also, the Project Site is not located within an area potentially affected by seiche, tsunami, or mudflow. The Project Site is not located within a designated 100-year flood plain. The Project Site is not identified in the Safety Element of the General Plan as being located in any area potentially susceptible to floods associated with a levee or dam.
HYD-9: Potential to expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.	**MM-HYD-8(b**).	No mitigation required. The Project is located in a potential dam inundation area related to the Hansen Dam and Hansen Recreational area, located three miles north of the Project Site and surrounded by intervening development. The Federal Energy Regulatory Commission (FERC) cooperates with a large number of federal and state agencies to ensure and promote dam safety. Every five years, an independent engineer approved by the FERC must inspect and evaluate projects with dams higher

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		than 32.8 feet (10 meters) or with a total storage capacity of more than 2,000 acre-feet, which includes the Hansen Dam, thereby reducing the risk of dam failure. As such, the probability of dam failure is low and risks would be less than significant
HYD-10: Potential for inundation by seiche, tsunami, or mudflow.	**MM-HYD-8(b)**.	No mitigation is required. The Project Site is not located with a 100-Year or 500-Year flood plain. The Project Site is located approximately 15 miles northeast of the Pacific Ocean and is not located within a tsunami hazard area or a Tsunami Inundation Zone. The Project is located in a potential dam inundation area related to the Hansen Dam and Hansen Recreational area, located three miles north of the Project Site and surrounded by intervening development. As the Hansen Dam is subject to ongoing inspection by the FERC, the probability of dam failure is low and risks would be less than significant.
Land Use and Planning		
LU-1: Potential to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	**MM-LU-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects regarding the potential to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project that are within the jurisdiction and responsibility of local jurisdictions and Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the goals and policies established within the applicable adopted county and city general plans within the SCAG region to avoid conflicts with zoning and ordinance codes, general plans, land use plan, policy, or regulation of an agency with jurisdiction over the project, as applicable and feasible. Such measures may include the following, and/or other comparable measures identified by the Lead Agency: • Where an inconsistency with the adopted general plan is identified at the proposed project location, determine if the environmental, social, economic, and engineering benefits of the project warrant a variance from adopted zoning or an amendment to the general plan.	No mitigation is required. The Project Site is within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan area and is designated as Neighborhood Commercial, which corresponds to the Property's current zoning of C2-1VL and R1-1. The existing zoning only allows for a FAR of 3:1 and a height of three stories due to a General Plan Footnote (Land Use Map, Footnote No. 2). The Project would require a zone change to RAS4-1-CUGU (residential/accessory) and to eliminate the General Plan footnote limiting the number of stories that can be built. The zone change is necessary to ensure that zoning for the Project Site is consistent with state law. Portions of the Project Site's current zoning are inconsistent with its Neighborhood Commercial General Plan designation. Therefore, the Project's zone change achieves the state law requirement to ensure that zoning is always consistent with the general plan. Moreover, the new zoning designations permit uniform development of multi-family residential uses. The Project Site is an infill location close to jobs, off-site

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		housing, and services and in close proximity to existing and future public transit stops The Project would provide 432 new dwelling units in a mix of unit sizes (one-bedroom, two-bedroom, and three-bedroom units) and affordability levels. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or Very Low Income Households. Development of limited ground floor commercial uses, which allows for mixed-uses at the Project Site that would activate the street and encourage pedestrian activity. The Project would be consistent with the policies and objectives of the Los Angeles Framework Element, Los Angeles General Plan Housing Element, Los Angeles General Plan Mobility Plan 2035, Los Angeles General Plan Noise Element, the City Planning Commission's Do Real Planning document, the SCAG's 2016 RTP/SCS, and the Sun Valley-La Tuna Canyon Community Plan. Specifically, the Project is consistent with goals and policies to contained within these plans that aim to provide new housing, improve the pedestrian environment, support mixed use development near transit, improve air quality and active transportation (e.g., bicycling and walking), and encourage new high quality development that is compatible with existing uses and development.
LU-2: Potential to physically divide an established community.	**MM-LU-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects related to the physical division of an established community in a project area within the jurisdiction and responsibility of local jurisdictions and Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the goals and policies established within the applicable adopted county and city general plans within the SCAG region to avoid the creation of barriers that physically divide such communities, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Consider alignments within or adjacent to existing public rights-of-way. • Consider designs to include sections above- or below-grade to maintain viable vehicular, cycling, and pedestrian connections between portions of communities where existing connections are disrupted by the transportation project.	No mitigation is required. The Project Site is currently developed with commercial buildings, storage areas and surface parking. The Project Site vicinity is highly urbanized and generally built out. The local vicinity is characterized by a blend of commercial, residential, industrial, office, and school uses. The Project would provide a new mixed-use development that would include residential uses and ground level commercial uses. As such, the Project would be an infill project providing uses in keeping with the mixed-use character of the surrounding area. Given the type of uses in the Project Site vicinity, and the infill character of the Project, it would not physically divide an established community. The Project would not disrupt or divide an established community through a change in street or

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	• Wherever feasible incorporate direct crossings, overcrossings, or undercrossings at regular intervals for multiple modes of travel (e.g., pedestrians, bicyclists, vehicles). • Consider realigning roadway or interchange improvements to avoid the affected area of residential communities or cohesive neighborhoods. • Where it has been determined that it is infeasible to avoid creating a barrier in an established community, consider other measures to reduce impacts, including but not limited to: o Alignment shifts to minimize the area affected. o Reduction of the proposed right-of-way take to minimize the overall area of impact. o Provisions for bicycle, pedestrian, and vehicle access across improved roadways. • Design new transportation facilities that consider access to existing community facilities. Identify and consider during the design phase of the project, community amenities and facilities in the design of the project. • Design roadway improvements that minimize barriers to pedestrians and bicyclists. Determine during the design phase, pedestrian and bicycle routes that permit connections to nearby community facilities.	land use patterns on surrounding streets.
LU-3: Potential to conflict with any applicable habitat conservation plan or natural community conservation plan.	**MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-BIO-4(b)**, **MM-BIO-5(b)**, and **MM-BIO-6(b)**.	No mitigation is required. The Project Site is not subject to provisions of any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Furthermore, the Project Site is not located within or adjacent to an existing Significant Ecological Area.
Mineral Resources		
MIN-1: Potential to result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	**MM-MIN-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan that are within the jurisdiction and responsibility of the California Department of Conservation, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with SMARA, California Department of Conservation regulations, local general plans, specific plans, and other laws and regulation governing mineral or aggregate resources, as applicable and feasible. Such measures may include the following, other comparable measures identified by the Lead Agency:	No mitigation is required. The Project Site is located in an urbanized area of the City. As identified in the City of Los Angeles General Plan, Conservation Element, 2001, Appendix A, the Project is located in "Mineral Resource Zone-2", a California State Geologist classification. It denotes an area in which deposits, in this case sand and gravel, are of significance to the state. However, the Project Site is not zoned for mineral extraction use and the Project Site has not been historically used for mineral resource extraction. The Project Site is not located within a Los Angeles City Oil Drilling District. As noted in the Phase I ESA, no oil or gas wells are located on the Project Site and as a

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	• Provide for the efficient use of known aggregate and mineral resources or locally important mineral resource recovery sites, by ensuring that the consumptive use of aggregate resources is minimized and that access to recoverable sources of aggregate is not precluded, as a result of construction, operation and maintenance of projects. • Where avoidance is infeasible, minimize impacts to the efficient and effective use of recoverable sources of aggregate through measures that have been identified in county and city general plans, or other comparable measures: o Recycle and reuse building materials resulting from demolition, particularly aggregate resources, to the maximum extent practicable. o Identify and use building materials, particularly aggregate materials, resulting from demolition at other construction sites in the SCAG region, or within a reasonable hauling distance of the project site. o Design transportation network improvements in a manner (such as buffer zones or the use of screening) that does not preclude adjacent or nearby extraction of known mineral and aggregate resources following completion of the improvement and during long-term operations. o Avoid or reduce impacts on known aggregate and mineral resources and mineral resource recovery sites through the evaluation and selection of project sites and design features (e.g., buffers) that minimize impacts on land suitable for aggregate and mineral resource extraction by maintaining portions of MRZ-2 areas in open space or other general plan land use categories and zoning that allow for mining of mineral resources.	mixed-use Project, implementation of the Project would not involve any oil, gas, or mineral extraction uses. As the Project Site does not have any wells and no active oil wells are located in its immediate vicinity and the Project has not been used for mineral extraction and does not include any oil or mineral extraction uses, the Project would not result in the loss of availability of known mineral resources.
MIN-2: Potential to result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	**MM-MIN-1(b)**.	No mitigation is required. The Project Site is located in an urbanized area of the City. As identified in the City of Los Angeles General Plan, Conservation Element, 2001, Appendix A, the Project is located a larger area identified as "Mineral Resource Zone-2", a California State Geologist classification. The Project Site has not been historically used for mineral resource extraction and is not zoned for mineral extraction uses, as it is designated as Neighborhood Commercial within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan. Because the Project is not currently occupied with mineral extraction uses, would not involve mineral extraction, and would not encroach on the City's existing sand and gravel mining operations, it would not result in the loss of availability of these locally important mineral resources.

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Noise		
NOISE-1: Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	**MM-NOISE-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects of noise impacts that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure consistency with the Federal Noise Control Act, California Government Code Section 65302, the Governor's Office of Planning and Research Noise Element Guidelines, and the noise ordinances and general plan noise elements for the counties or cities where projects are undertaken, Federal Highway Administration and Caltrans guidance documents and other health and safety standards set forth by federal, state, and local authorities that regulate noise levels, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency: • Install temporary noise barriers during construction. • Include permanent noise barriers and sound-attenuating features as part of the project design. • Schedule construction activities consistent with the allowable hours pursuant to applicable general plan noise element or noise ordinance. Where construction activities are authorized outside the limits established by the noise element of the general plan or noise ordinance, notify affected sensitive noise receptors and all parties who will experience noise levels in excess of the allowable limits for the specified land use, of the level of exceedance and duration of exceedance; and provide a list of protective measures that can be undertaken by the individual, including temporary relocation or use of hearing protective devices. • Limit speed and/or hours of operation of rail and transit systems during the selected periods of time to reduce duration and frequency of conflict with adopted limits on noise levels. • Post procedures and phone numbers at the construction site for notifying the Lead Agency staff, local Police Department, and construction contractor (during regular construction hours and off-hours), along with permitted construction days and hours, complaint procedures, and who to notify in the event of a problem. • Notify neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of anticipated times when noise levels are expected to exceed limits established in the noise element of the general plan or noise ordinance. • Hold a preconstruction meeting with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are	The Project would substantially conform to this SCAG mitigation measure with the implementation of mitigation measures, project design features, and regulatory compliance measures. The Project is required to comply with regulatory control measures in LAMC Section 41.40 and Section 112.05, which regulate noise from construction activities (e.g., construction activities will be prohibited between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, and between 6:00 p.m. and 8:00 a.m. on any Saturday or national holiday or at any time on Sunday); in City of Los Angeles Building Regulations Ordinance No. 178,048, which require a construction site notice to be provided; in LAMC Section 112.02, which require that any heating, ventilation, and air conditioning (HVAC) system within any zone of the City not cause an increase in ambient noise levels by more than 5 dBA on any other occupied property, and in LAMC Section 114.03, which prohibit loading/unloading activities within 200 feet of any residential building between the hours of 10:00 p.m. and 7:00 a.m. of the following day. In addition to the above regulatory compliance measures, in order to further minimize construction and operational noise, the Project would include PDFs which include the implementation of specific requirements and best management practices to minimize Project-related noise. The PDFs are as follows: **PDF-NOI-1:** No pile driving activities or blasting will be allowed at the Project Site during construction. **PDF-NOI-2:** All noise-generating mechanical equipment during Project operations will be equipped with noise-muffling devices or shielding (e.g., enclosures) to minimize noise levels at neighboring properties in accordance with Section 112.02 of the LAMC, 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 5 dBA. The noise control methods that will be implemented by the

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	completed. • Designate an on-site construction complaint and enforcement manager for the project. • Ensure that construction equipment is properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (e.g., mufflers, silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded. • Ensure that impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction are hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust can and should be used. External jackets on the tools themselves can and should be used, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures can and should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. • Ensure that construction equipment is not idle for an extended time in the vicinity of noise-sensitive receptors. • Locate fixed/stationary equipment (such as generators, compressors, rock crushers, and cement mixers) as far as possible from noise-sensitive receptors. • Locate new roadway lanes, roadways, rail lines, transit-related passenger station and related facilities, park-and-ride lots, and other new noise-generating facilities away from sensitive receptors to the maximum extent feasible. • Where feasible, eliminate noise-sensitive receptors by acquiring freeway and rail rights-of-way. • Use noise barriers to protect sensitive receptors from excessive noise levels during construction. • Construct sound-reducing barriers between noise sources and noise-sensitive receptors to minimize exposure to excessive noise during operation of transportation improvement projects, including but not limited to earth-berms or sound walls. • Where feasible, design projects so that they are depressed below the grade of the existing noise-sensitive receptor, creating an effective barrier between the roadway and sensitive receptors. • Where feasible, improve the acoustical insulation of dwelling units where setbacks and sound barriers do not provide sufficient noise reduction. • Monitor the effectiveness of noise reduction measures by taking noise measurements and installing adaptive mitigation measures to achieve the standards for ambient	Project to reduce its mechanical equipment noise levels may include, but will not be limited to: a) Selecting mechanical equipment designed to produce low noise levels. This includes the mechanical equipment for heating and cooling interior spaces (i.e., HVAC) as well as equipment associated with the swimming pool; b) Shielding mechanical equipment with screens, acoustical louvers, or other noise barriers; and c) Installing a parapet wall around the perimeter of the rooftop of the mixed-use building to minimize noise levels from HVAC equipment. **PDF-NOI-3:** The Project will implement operational restrictions to limit excessive noise generated by residents at the outdoor amenity areas located at the ground floor level, which includes the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. Such restrictions will include limiting the hours of use at these outdoor areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire or safety codes), and restricting the exterior use of amplified music. Building management staff would be required to ensure that operations remain in compliance with the daytime noise limits set forth in the LAMC. Furthermore, the Project would implement the following mitigation measures to reduce construction and operational noise to less-than-significant levels. The mitigation measures are as follows: **MM NOI-1:** The following measures shall be employed during Project construction to reduce short-term noise levels: a) A 15-foot-high temporary noise barrier with a minimum STC rating of 28 will be erected along the eastern and southern boundaries of the Project Site to provide a minimum of 10 dBA noise

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	noise levels established by the noise element of the general plan or noise ordinance.	attenuation. b) Equipment staging and laydown areas will be located at the farthest practical distance from nearby residential land uses. c) High noise-producing construction activities will be scheduled during periods that are least sensitive, such as during daytime hours when neighboring residents are generally away at work. d) Construction equipment will be fitted with noise-reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer. e) Stationary construction equipment, such as compressors, will be positioned as far away as practical from adjacent noise-sensitive receptors. f) All construction equipment not in use will be switched off. g) Haul trucks will not be allowed to idle for periods greater than 5 minutes, except as needed to perform a specified function (e.g., concrete mixing). Signs will be posted in delivery loading areas specifying this idling restriction. h) On-site vehicle speeds will be limited to 15 miles per hour or less (except in cases of emergency). i) Construction-related truck traffic will be routed away from noise-sensitive areas to the extent feasible. j) Back-up beepers for all construction equipment and vehicles will be broadband sound alarms or adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters will be employed. k) A designated point of contact will be identified to

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		address noise-related complaints during construction. The noise disturbance coordinator will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler) and will be required to implement reasonable measures such that the complaint is resolved. **MM NOI-2.** A solid wall with a minimum height of 8 feet shall be erected to serve as a noise barrier along the portion of the Project Site's southern boundary where the outdoor amenity areas are located to reduce noise levels at the adjacent off-site single-family residences. The City has determined that, with compliance with City regulatory requirements, incorporation of PDF-NOI-1 through PDF-NOI-3, and implementation of mitigation measures MM-NOI-1 and MM-NOI-2, the Project would minimize its construction and operational noise effects. As a result, the City has determined that the Project's noise impacts would be less than significant, and that the Project would therefore minimize its effects substantially in conformance with SCAG MM-NOISE-1(b).
NOISE-2: Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	**MM-NOISE-1(b)**. **MM-NOISE-2(b)**: Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects of vibration impacts that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the Federal Transportation Authority and Caltrans guidance documents, county or city transportation commission, noise and vibration ordinances and general plan noise elements for the counties and cities where projects are undertaken and other health and safety regulations set forth by federal state, and local authorities that regulate vibration levels, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency: • For projects that require pile driving or other construction techniques that result in excessive vibration, such as blasting, determine the potential vibration impacts to the structural integrity of the adjacent buildings within 50 feet of pile driving locations.	The Project would substantially conform to these mitigation measures with the implementation of mitigation measures and design features. The Project would include PDF-NOI-1, which prohibits pile driving or blasting at the Project Site during construction to eliminate vibration from these sources. The Project would also include the following Mitigation Measure to reduce vibration impacts to off-site receptors during construction activities at the Project Site: **MM NOI-3:** During Project construction the use of large, full-size mobile construction equipment, such as bulldozers, excavators, loaders, etc., shall be prohibited within 25 feet of the existing residential and commercial structures directly adjacent to the Project Site boundary. Instead, small-sized mobile equipment (e.g., Bobcats/skidsteers, compact or mini model versions of

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	• For projects that require pile driving or other construction techniques that result in excessive vibration, such as blasting, determine the threshold levels of vibration and cracking that could damage adjacent historic or other structure, and design means and construction methods to not exceed the thresholds. • For projects where pile driving would be necessary for construction due to geological conditions, utilize quiet pile driving techniques such as predrilling the piles to the maximum feasible depth, where feasible. Predrilling pile holes will reduce the number of blows required to completely seat the pile and will concentrate the pile driving activity closer to the ground where pile driving noise can be shielded more effectively by a noise barrier/curtain. • For projects where pile driving would be necessary for construction due to geological conditions, utilize quiet pile driving techniques such as the use of more than one pile driver to shorten the total pile driving duration.	bulldozers, excavators, small loaders) shall be used for construction work that needs to take place within this distance to off-site structures during all phases of construction. The City has determined that with incorporation of PDF-NOI-1 and implementation of mitigation measures MM-NOI-3, the Project would minimize its construction vibration effects. As a result, the City has determined that the Project's vibration impacts would be reduced to a less-than-significant level, and that the Project would therefore minimize its effects substantially in conformance with SCAG MM-NOISE-2(b).
NOISE-3: Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	**MM-NOISE-1(b)**.	The Project substantially conforms to this mitigation measure for the reasons stated above. Specifically, with compliance with City regulatory requirements, incorporation of PDF-NOI-1 through PDF-NOI-3, and implementation of mitigation measures MM-NOI-1 and MM-NOI-2, the Project would minimize its construction and operational noise effects.
NOISE-4: Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	**MM-NOISE-1(b)**.	The Project substantially conforms to this mitigation measure as stated above.
NOISE-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels.	No mitigation required.	No mitigation is required.

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NOISE-6: For a project within the vicinity of a private airstrip, result in the exposure of people residing or working in the project area to excessive noise levels.	No mitigation required.	No mitigation is required.
Population, Housing, and Employment		
PHE-1: Potential to induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	**MM-LU-1(b)**.	No mitigation is required. The Project would provide infill development within a currently developed urban setting. It would not add new infrastructure beyond that required to connect the Project to existing utility lines, and adjacent roadways. Therefore, the Project would not open new areas to development; or promote development in an area not otherwise expected to be developed. The Project's 432 residential units are estimated to result in an increase of the residential population of approximately 1,050 residents. As the Project would replace existing commercial and office uses with new commercial employment, the Project would result in a net increase of 33 employees. The Project's estimated housing, population, and employment growth would be within the estimated growth projections for 2023 (Project buildout year), and SCAG's 2040 growth projections based on the SCAG 2016 RTP/SCS, and would occur on a Project Site located within a HQTA and TPA.
PHE-2: Potential to displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere.	**MM-PHE-2(b).** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects related to displacement that are within the jurisdiction and responsibility of Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to minimize the displacement of existing housing and people and to ensure compliance with local jurisdiction's housing elements of their general plans, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Evaluate alternate route alignments and transportation facilities that minimize the displacement of homes and businesses. Use an iterative design and impact analysis where impacts to homes or businesses are involved to minimize the potential of	The Project Site is currently developed with office and commercial uses and does not contain any existing housing. Therefore, development of the Project would not displace any existing housing and would not require construction of replacement housing.

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	impacts on housing and displacement of people. • Prioritize the use existing ROWs, wherever feasible. • Develop a construction schedule that minimizes potential neighborhood deterioration from protracted waiting periods between right-of-way acquisition and construction.	
PHE-3: Potential to displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.	**MM-PHE-2(b)**.	No mitigation is required. The Project Site is currently developed with office and commercial uses and does not contain any existing residential uses.
Public Services		
PS-1: Potential to cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection and emergency response services.	**MM-AES-1(b)**, **MM-AES-3(b)**, **MM-AES-4(b)**, **MM-AF-1(b)**, **MM-AF-2(b)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-CUL-1(b)**, **MM-CUL-2(b)**, **MM-CUL-3(b)**, **MM-CUL-4(b)**, **MM-GEO-1(b)**, **MM-GEO-1(b)**, **MM-HYD-1(b)**, **MM-USS-3(b)**, **MM-USS-4(b)**, and **MM-USS-6(b)**. **MM-PS-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from the need for new or physically altered governmental facilities in order to maintain acceptable response times for fire protection and emergency response services that are within the jurisdiction and responsibility of fire departments, law enforcement agencies, and local jurisdictions. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures consistent with the Community Facilities Act of 1982, the goals and policies established within the applicable adopted county and city general plans and the performance objectives established in the adopted county and city general plans, to provide sufficient structures and buildings to accommodate fire and emergency response, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency, taking into account project and site-specific considerations as applicable and feasible: • Where the project has the potential to generate the need for expanded emergency response services which exceed the capacity of existing facilities, provide for the construction of new facilities directly as an element of the project or through dedicated fair share contributions toward infrastructure improvements. • During project-level review of government facilities projects, require implementation of Mitigation Measures MM-AES-1(b), MM-AES-3(b), MM-AES-4(b), MM-AF-1(b), MM-AF-2(b), MM-BIO-1(b), MM-BIO-2(b), MM-BIO-3(b), MM-CUL-1(b), MM-CUL-2(b), MM-CUL-3(b), MM-CUL-4(b), MM-GEO-1(b),	See above regarding, AES-1 through AES-4, AF-2 through AF-3, BIO-1 through BIO-3, CUL-1 through CUL-2, GEO-1, HYD-1 and below regarding USS-3, USS-4 and USS-6. Mitigation is not required because Project impacts would be less than significant with the implementation of regulatory compliance measures. The Project would be subject to compliance with fire protection design standards, as necessary, per the California Building Code, California Fire Code, the City of Los Angeles Municipal Code and the Los Angeles Fire Department (LAFD), to ensure adequate fire protection. Existing facilities are capable of providing acceptable response times for fire protection and emergency response services. Specifically, the Los Angeles Fire Department (LAFD) considers fire protection services for a project adequate if a project is within the maximum response distance (1.5 miles in this instance). The Project Site is served by LAFD Station No. 89 approximately 1.3 miles from the Project Site and Fire Station No. 77, 1.9 miles from the Project Site. Additionally, the Project would be subject to the existing regulations in the City's Fire Code and LAMC related to emergency access. Thus, fire protection response with existing facilities is therefore considered adequate. Therefore, the Project would not require the need for

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	MMGEO-1(b), MM-HYD-1(b), MM-USS-3(b), MM-USS-4(b), and MM-USS-6(b) to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities, through the imposition of conditions required to be followed to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of new or expanded public service facilities.	new or physically altered governmental facilities. Furthermore, a mere increase in demand for additional public safety services or increased response times is not an environmental impact that CEQA requires a project proponent to mitigate where, as is the case here, no expansion of existing facilities or service is required at all, much less the kind of the expansion that would trigger a significant impact and therefore have to be mitigated. (City of Hayward v. Board of Trustees of the California State University (2015) 242 Cal. App. 4th 833, 843). lot that would likely be less than an acre in size.
PS-2: Potential to cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public protective security services.	**MM-AES-1(b)**, **MM-AES-3(b)**, **MM-AES-4(b)**, **MM-AF-1(b)**, **MM-AF-2(b)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-CUL-1(b)**, **MM-CUL-2(b)**, **MMCUL-3(b)**, **MM-CUL-4(b)**, **MM-GEO-1(b)**, **MM-GEO-1(b)**, **MM-HYD-1(b)**, **MM-USS-3(b)**, **MM-USS-4(b)**, and **MM-USS-6(b)**. **MM-PS-2(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from the need for new or physically altered governmental facilities in order to maintain acceptable service ratios for police protection services that are within the jurisdiction and responsibility of law enforcement agencies and local jurisdictions. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures consistent with the Community Facilities Act of 1982, the goals and policies established within the applicable adopted county and city general plans and the standards established in the safety elements of county and city general plans to maintain police response performance objectives, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency, taking in to account project and site-specific considerations as applicable and feasible, including: • Coordinate with public security agencies to ensure that there are adequate governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for public protective security services and that any required additional construction of buildings is incorporated into the project description. • Where current levels of services at the project site are found to be inadequate, provide fair share contributions towards infrastructure improvements and/or personnel. • During project-level review of government facilities projects, require implementation of Mitigation Measures MM-AES-1(b), MM-AES-3(b), MM-AES-4(b), MM-AF-1(b), MM-AF-2(b), MM-BIO-1(b), MM-BIO-2(b), MM-BIO-3(b),	See above regarding, AES 1 through AES-4, AF-2 through AF-3, BIO-1 through BIO-3, CUL-1 through CUL-2, GEO-1, HYD-1, and below regarding USS-3, USS-4 and USS-6. The Project's impacts would be less than significant. Nevertheless the Project substantially conforms to this mitigation measure because the Project is not expected to result in a substantial increase in demand for additional police protection services that would require the addition of a new police facility or the expansion, consolidation, or relocation of an existing police station to maintain service ratios. In addition, existing facilities are capable of providing acceptable response times for police protection, and the PDs listed above, are equally effective in mitigating any potential impacts to a less than significant level. The Project Site is currently served by the Los Angeles Police Department (LAPD) Foothill Community Police Station. The Project would incorporate crime prevention features into the design of the buildings and public spaces, such as lighting of entryways and public areas. The Project would feature the following: • On-site security personnel; • Security cameras; • Perimeter lighting to supplement the street lighting and to provide increased visibility and security; • Parking structure access control; and

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	MM-CUL-1(b), MM-CUL-2(b), MM-CUL-3(b), MM-CUL-4(b), MM-GEO-1(b), MMGEO-1(b), MM-HYD-1(b), MM-USS-3(b), MM-USS-4(b), and MM-USS-6(b) to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities, through the imposition of conditions required to be followed to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of new or expanded public service facilities.	• Residential units access control. The following Project Design Features are proposed with regard to police protection: **PDF PS-1**: A construction fence shall be constructed around the Project Site to minimize trespassing, vandalism, short-cut attractions and attractive nuisances. **PDF PS-2**: Prior to the occupancy of the Project, the Applicant shall provide the Foothill Area Commanding Officer with a diagram of each portion of the property, including access routes, and additional information to facilitate potential LAPD responses. Furthermore, as the court concluded, the need for additional public safety services is not an environmental impact that CEQA requires a project proponent to mitigate. (City of Hayward v. Board of Trustees of the California State University (2015) 242 Cal. App. 4th 833, 843)
PS-3: Potential to cause substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools services.	**MM-AES-1(b)**, **MM-AES-3(b)**, **MM-AES-4(b)**, **MM-AF-1(b)**, **MM-AF-2(b)**, **MM-BIO-1(b)**, **MM-BIO-2(b)**, **MM-BIO-3(b)**, **MM-CUL-1(b)**, **MM-CUL-2(b)**, **MM-CUL-3(b)**, **MM-CUL-4(b)**, **MM-GEO-1(b)**, **MM-GEO-1(b)**, **MM-HYD-1(b)**, **MM-USS-3(b)**, **MM-USS-4(b)**, and **MM-USS-6(b)**. **MM-PS-3(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects from the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives that are within the jurisdiction and responsibility of school districts and local jurisdictions. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures consistent with Community Facilities Act of 1982, the California Education Code, and the goals and policies established within the applicable adopted county and city general plans to ensure that the appropriate school district fees are paid in accordance with state law, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency, taking in to account project and site-specific considerations as applicable and feasible: • Where construction or expansion of school facilities is required to meet public school service ratios, require school district fees, as applicable. • During project-level review of government facilities projects, require	See above regarding, AES 1 through AES-4, AF-2 through AF-3, BIO-1 through BIO-3, CUL-1 through CUL-2, GEO-1, HYD-2, and below regarding USS-3, USS-4 and USS-6. The Project is subject to the following existing regulation that avoids or reduces the significant effects from the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives that are within the jurisdiction and responsibility of school districts and local jurisdictions: In accordance with the Greene Act of 1998, the Applicant will pay school fees to the Los Angeles Unified School District to offset the impact of additional student enrollment at schools serving the project area.

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	implementation of Mitigation Measures MM-AES-1(b), MM-AES-3(b), MM-AES-4(b), MM-AF-1(b), MM-AF-2(b), MM-BIO-1(b), MM-BIO-2(b), MM-BIO-3(b), MM-CUL-1(b), MM-CUL-2(b), MM-CUL-3(b), MM-CUL-4(b), MM-GEO-1(b), MMGEO-1(b), MM-HYD-1(b), MM-USS-3(b), MM-USS-4(b), and MM-USS-6(b) to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities, through the imposition of conditions required to be followed to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of new or expanded public service facilities.	
Recreation		
REC-1: Potential to increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	**MM-REC-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on the integrity of recreation facilities, particularly neighborhood parks in the vicinity of HQTAs and other applicable development projects, that are within the jurisdiction and responsibility of other public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures capable of avoiding or reducing significant impacts on the use of existing neighborhood and regional parks or other recreational facilities to ensure compliance with county and city general plans and the Quimby Act, as applicable and feasible. Such measures may include the following, or other comparable measures identified by the Lead Agency: • Prior to the issuance of permits, where projects require the construction or expansion of recreational facilities or the payment of equivalent Quimby fees, consider increasing the accessibility to natural areas and lands for outdoor recreation from the proposed project area, in coordination with local and regional open space planning and/or responsible management agencies. • Prior to the issuance of permits, where projects require the construction or expansion of recreational facilities or the payment of equivalent Quimby fees, encourage patterns of urban development and land use which reduce costs on infrastructure and make better use of existing facilities, using strategies such as: o Increasing the accessibility to natural areas for outdoor recreation. o Promoting infill development and redevelopment to revitalize existing communities. o Utilizing “green” development techniques. o Promoting water-efficient land use and development. o Encouraging multiple uses. o Including trail systems and trail segments in General Plan recreation standards.	No mitigation is required. The Project would provide 84,600 square feet of credited open space and would be compliant with open space requirements. The Project applicant would be responsible for meeting any parkland fee requirements pursuant to the Quimby Act and in accordance with mandates set forth in Los Angeles Municipal Code Section 17.12 and 12.33.applicable LAMC requirements, as necessary.

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	• Prior to the issuance of permits, where construction and operation of projects would require the acquisition or development of protected open space or recreation lands, demonstrate that existing neighborhood parks can be expanded or new neighborhood parks developed such that there is no net decrease in acres of neighborhood park area available per capita in the HQTA. • Where construction or expansion of recreational facilities is included in the project or required to meet public park service ratios, require implementation of Mitigation Measures MM-AES-1(b), MM-AES-3(b), MM-AES-4(b), MM-AF-1(b), MM-AF-2(b), MM-BIO-1(b), MM-BIO-2(b), MM-BIO-3(b), MM-CUL-1(b), MM-CUL-2(b), MM-CUL-3(b), MM-CUL-4(b), MM-GEO-1(b), MM-GEO-1(b), MM-HYD-1(b), MM-USS-3(b), MM-USS-4(b), and MM-USS-6(b) to avoid or reduce significant environmental impacts associated with the construction or expansion of such facilities, through the imposition of conditions required to be followed to avoid or reduce impacts associated with air quality, noise, traffic, biological resources, greenhouse gas emissions, hydrology and water quality, and others that apply to specific construction or expansion of new or expanded public service facilities.	
REC-2: Potential to include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	**MM-REC-1(b)**.	No mitigation is required. The Project would provide 84,600 square feet of credited open space and would be compliant with open space requirements. These recreational amenities including a courtyard, community room, recreation room, open space areas, a pool, spa, seating area, barbecue area, playground, lounge, and landscaping, and private balconies would help relieve stress on the City's existing park and recreational system. The Project does not include, nor would it necessitate, a park or public recreational facility component, the construction of which could have an adverse environmental impact.
Transportation		
TRA-1: Potential to conflict with the established measures of effectiveness for the performance of the circulation system, by increasing the daily VMT, taking into account all modes of	**MM-TRA-1(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the potential for conflicts with the established measures of effectiveness for the performance of the circulation system that are within the jurisdiction and responsibility of Lead Agencies. This measure need only be considered where it is found by the Lead Agency to be appropriate and consistent with local transportation priorities. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the adopted Congestion Management Plan, and other adopted local plans and policies, as	The Project already substantially conforms to this mitigation measure. A CEQA Thresholds Transportation Memorandum was prepared by for the Project by Gibson Transportation Consulting, Inc. dated June 12, 2020 and provided in Appendix K of this SCEA. The analysis is based on LADOT Transportation Assessment Guidelines (TAG) and Appendix G of the CEQA Guidelines from the State of California Governor's Office of Planning and Research. This analysis complies with the City's

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transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.	applicable and feasible. Compliance can be achieved through adopting transportation mitigation measures as set forth below, or through other comparable measures identified by the Lead Agency: • Institute teleconferencing, telecommute and/or flexible work hour programs to reduce unnecessary employee transportation. • Create a ride-sharing program by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides. • Provide a vanpool for employees. • Fund capital improvement projects to accommodate future traffic demand in the area. • Provide a Transportation Demand Management (TDM) plan containing strategies to reduce on-site parking demand and single occupancy vehicle travel. The TDM shall include strategies to increase bicycle, pedestrian, transit, and carpools/vanpool use, including: o Inclusion of additional bicycle parking, shower, and locker facilities that exceed the requirement; o Construction of bike lanes per the prevailing Bicycle Master Plan (or other similar document); o Signage and striping onsite to encourage bike safety, Installation of pedestrian safety elements (such as cross walk striping, curb ramps, countdown signals, bulb outs, etc.) to encourage convenient crossing at arterials; o Installation of amenities such as lighting, street trees, trash and any applicable streetscape plan; o Direct transit sales or subsidized transit passes, Guaranteed ride home program; o Pre-tax commuter benefits (checks); o On-site car-sharing program (such as City Car Share, Zip Car, etc.); o On-site carpooling program; o Distribution of information concerning alternative transportation options; o Parking spaces sold/leased separately; and o Parking management strategies, including attendant/valet parking and shared parking spaces. • Promote ride sharing programs e.g., by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to	latest guidelines requiring any development projects that may not be fully entitled prior to July 1, 2020 to be evaluated for transportation impacts in compliance with the CEQA Guidelines in its implementation of Senate Bill 743 which are identified in the TAG. Specifically, CEQA guidelines Section 15064.3 establishes Vehicle Miles Travels (VMT) as the most appropriate measure of transportation impacts. The VMT metric is intended to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. This encourages development that shortens the distance between housing, jobs, and services, increases the availability of affordable housing options in proximity to public transit, offers attractive non-vehicular transportation alternatives, provides strong transportation demand management programs, and promotes walking and bicycling trips. The TAG also identifies "non-CEQA" transportation issues, which include: 1) pedestrian, bicycle, and transit facilities; 2) project access, safety, and circulation; 3) construction traffic; and 4) residential street cut-through analysis. The analyses of these "non-CEQA" issues are not required by CEQA. Former LOS-based metrics that evaluated automobile congestion are no longer considered significant environmental impacts in accordance with CEQA Guidelines Section 15064.3. The following Project Design Features would be implemented as part of the Project: PDF TRAF-1 TDM Program. The Project shall develop and implement a TDM program to promote non-auto travel, and reduce the use of single-occupant vehicle trips. The TDM program would be subject to review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

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	accommodate vans used for ride- sharing, and designating adequate passenger loading and unloading and waiting areas. • Encourage bicycling to transit facilities by providing additional bicycle parking, locker facilities, and bike lane access to transit facilities when feasible. • Encourage the use of public transit systems by enhancing safety and cleanliness on vehicles and in and around stations, providing shuttle service to public transit, offering public transit incentives and providing public education and publicity about public transportation services. • Encourage bicycling and walking by incorporating bicycle lanes into street systems in regional transportation plans, new subdivisions, and large developments, creating bicycle lanes and walking paths directed to the location of schools and other logical points of destination and provide adequate bicycle parking, and encouraging commercial projects to include facilities on-site to encourage employees to bicycle or walk to work. • Build or fund a major transit stop within or near transit development upon consultation with applicable CTCs. • Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower- emitting vehicles. • Provide information on alternative transportation options for consumers, residents, tenants and employees to reduce transportation-related emissions. • Educate consumers, residents, tenants and the public about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; vehicle performance and efficiency (e.g., keeping tires inflated); and low or zero-emission vehicles. • Purchase, or create incentives for purchasing, low or zero-emission vehicles. • Create local "light vehicle" networks, such as neighborhood electric vehicle systems. • Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles. • Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles. • Reduce VMT-related emissions by encouraging the use of public transit through adoption of new development standards that would require improvements to the transit system and infrastructure, increase safety and accessibility, and provide other incentives. • Project Selection: o Give priority to transportation projects that would contribute to a reduction in	• Educational Programs/On-Site Coordinator. A TDM coordinator would be required to be part of the building management staff that would reach out to employers and employees directly to promote the benefits of the TDM. • Transportation Information Center/Kiosk. The Transportation Information Center would be a centrally-located commuter information center where project residents can obtain information regarding commute programs, and individuals can obtain real-time information for planning travel without using an automobile. A Transportation Information Center would provide information about transit schedules, commute planning, rideshare, telecommuting, and bicycle and pedestrian plans. • Project Design Features to Promote Bicycling and Walking. The Project would incorporate features for bicyclists and pedestrians, such as exclusive access points, secured bicycle parking facilities. Pedestrian improvements internal to the Project Site would encourage walking and connect to off-site pedestrian facilities. Additionally, the Project Site would be designed to be a friendly and convenient environment for pedestrians. • Bikeway Improvements. The Project would contribute funding toward the implementation of bicycle improvements within the Study Area under the 2010 Bicycle Plan and Mobility Plan. • Reduced Parking Supply: Reduced parking supply to provide less parking than the direct LAMC requirement without consideration of additional parking reductions mechanisms (i.e., Bicycle Parking Ordinance, Specific Plan or Enterprise Zone areas, etc.) PDF TRAF-2: Mobility Improvement Program: The mobility improvement plan for the Project would include

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	vehicle miles traveled per capita, while maintaining economic vitality and sustainability. o Separate sidewalks whenever possible, on both sides of all new street improvement projects, except where there are severe topographic or natural resource constraints. • Public Involvement: o Carry out a comprehensive public involvement and input process that provides information about transportation issues, projects, and processes to community members and other stakeholders, especially to those traditionally underserved by transportation services. • Transit and Multimodal Impact Fees: o Assess transit and multimodal impact fees for new developments to fund public transportation infrastructure, bicycle infrastructure, pedestrian infrastructure and other multimodal accommodations. o Implement traffic and roadway management strategies to improve mobility and efficiency, and reduce associated emissions. • System Monitoring: o Monitor traffic and congestion to determine when and where new transportation facilities are needed in order to increase access and efficiency. • Arterial Traffic Management: o Modify arterial roadways to allow more efficient bus operation, including bus lanes and signal priority/preemption where necessary. • Signal Synchronization: o Expand signal timing programs where emissions reduction benefits can be demonstrated, including maintenance of the synchronization system, and will coordinate with adjoining jurisdictions as needed to optimize transit operation while maintaining a free flow of traffic. • HOV Lanes: o Encourage the construction of high-occupancy vehicle (HOV) lanes or similar mechanisms whenever necessary to relieve congestion and reduce emissions. • Delivery Schedules: o Establish ordinances or land use permit conditions limiting the hours when deliveries can be made to off- peak hours in high traffic areas, Implement and supporting trip reduction programs. o Support bicycle use as a mode of transportation by enhancing infrastructure to	the following improvements: • Installation of Continental (High Visibility) Crosswalks: The following four study intersections have been identified as locations where continental (high visibility) crosswalks would be installed: o 4. Webb Avenue & Roscoe Boulevard o 6. Laurel Canyon Boulevard & Strathern Street o 9. Vineland Avenue & Strathern Street o 12. Tujunga Avenue & Saticoy Street The Project would install continental (high visibility) crosswalk markings such as white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection. Additionally, continental (high visibility) crosswalks would include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk. • Installation and Maintenance of Sidewalks: One key corridor has been identified within the Study Area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. The Project would improve this segment of Strathern Street to include widening, paving, and clearly marking sidewalk and curb space. o Installation of Bus Stop Shelters: The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, would be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage. o Installation of Bus Stop Benches: The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, would be improved with the installation of a bus stop bench. The bus stop currently only provides transit signage.

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	accommodate bicycles and riders, and providing incentives. • Establish standards for new development and redevelopment projects to support bicycle use, including amending the Development Code to include standards for safe pedestrian and bicyclist accommodations, and require new development and redevelopment projects to include bicycle facilities. • Bicycle and Pedestrian Trails: o Establish a network of multi-use trails to facilitate safe and direct off-street bicycle and pedestrian travel, and will provide bike racks along these trails at secure, lighted locations. • Bicycle Safety Program: o Develop and implement a bicycle safety educational program to teach drivers and riders the laws, riding protocols, routes, safety tips, and emergency maneuvers. • Bicycle and Pedestrian Project Funding: o Pursue and provide enhanced funding for bicycle and pedestrian facilities and access projects. • Bicycle Parking: o Adopt bicycle parking standards that ensure bicycle parking sufficient to accommodate 5 to 10 percent of projected use at all public and commercial facilities, and at a rate of at least one per residential unit in multiple-family developments (suggestion: check language with League of American Bicyclists). • Adopt a comprehensive parking policy to discourage private vehicle use and encourage the use of alternative transportation by incorporating the following: o Reduce the available parking spaces for private vehicles while increasing parking spaces for shared vehicles, bicycles, and other alternative modes of transportation; o Eliminate or reduce minimum parking requirements for new buildings; o "Unbundle" parking (require that parking is paid for separately and is not included in the base rent for residential and commercial space); o Use parking pricing to discourage private vehicle use, especially at peak times; o Create parking benefit districts, which invest meter revenues in pedestrian infrastructure and other public amenities; o Establish performance pricing of street parking, so that it is expensive enough to promote frequent turnover and keep 15 percent of spaces empty at all times; o Encourage shared parking programs in mixed-use and transit-oriented	PDF TRAF-3: TSM Improvements. The Project would fund TSM improvements within the Study Area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with LADOT, the following TSM improvements would be implemented: • Upgrade existing traffic signal controller cabinets to Type 351/2/6/7 cabinets • 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street • 7. Lankershim Boulevard & Webb Avenue & Strathern Street • 10. Lankershim Boulevard & Stagg Street • 11. Lankershim Boulevard & Saticoy Street • Replacement of existing video fibers with a 24-strand signal mode fiber cable • 7. Lankershim Boulevard & Webb Avenue & Strathern Street • Upgrade existing pedestrian push buttons to accessible pedestrian signals o 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street o 7. Lankershim Boulevard & Webb Avenue & Strathern Street o 10. Lankershim Boulevard & Stagg Street o 11. Lankershim Boulevard & Saticoy Street PDF TRAF-4: The Applicant shall prepare a detailed Construction Management Plan that shall include, but not be limited to, the following elements, as appropriate: • Prohibition on construction-related vehicles/equipment parking on surrounding public streets. • Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as

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	development areas. • Establish policies and programs to reduce onsite parking demand and promote ride-sharing and public transit at large events, including: o Promote the use of peripheral parking by increasing on- site parking rates and offering reduced rates for peripheral parking; o Encourage special event center operators to advertise and offer discounted transit passes with event tickets; o Encourage special event center operators to advertise and offer discount parking incentives to carpooling patrons, with four or more persons per vehicle for on-site parking; o Promote the use of bicycles by providing space for the operation of valet bicycle parking service. • Parking "Cash-out" Program: o Require new office developments with more than 50 employees to offer a Parking "Cash-out" Program to discourage private vehicle use. • Pedestrian and Bicycle Promotion: o Work with local community groups and downtown business associations to organize and publicize walking tours and bicycle events, and to encourage pedestrian and bicycle modes of transportation. • Fleet Replacement: o Establish a replacement policy and schedule to replace fleet vehicles and equipment with the most fuel efficient vehicles practical, including gasoline hybrid and alternative fuel or electric models.	appropriate. • Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible. • Installation of appropriate traffic signs around the Project Site to ensure pedestrian, bicycle, and vehicle safety. • No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route. • Spacing of trucks so as to discourage a convoy effect. • Installation of truck crossing signs within 300 feet of the exit of the Project Site in each direction. • Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind. • Securing of loads by trimming and watering or covering to prevent the spilling or blowing of the earth material. • Cleaning of trucks and loads at the export site to prevent blowing dirt and spilling of loose earth. • Maintenance of a log documenting the dates of hauling and the number of trips (i.e., trucks) per day available on the job site at all times. • Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction. As discussed in the CEQA Thresholds Transportation Memorandum prepared for the Project, without application of any TDM strategies, the Project would generate average household VMT per capita of 7.6, thus falling below the North Valley APC significance threshold (9.2 household VMT per capita). Therefore,

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		implementation of TDM strategies as either project design features or mitigation is not required for the Project. However, the Project would continue to implement Project Design Features identified above that would further reduce Project VMT including the implementation of a comprehensive TDM program to reduce single occupancy vehicle trips to and from the Project Site, contributions toward TSM improvements to better facilitate pedestrian operations, and off-site mobility improvements to encourage non-auto travel.
TRA-2: Potential to conflict with an applicable congestion management program, including, but not limited to, VMT and travel demand measures, or other standards established by the County congestion management agency for designated roads or highways	**MM-TRA-2(b).** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding conflict with an applicable congestion management program that are within the jurisdictions of the lead agencies, including, but not limited to, VMT, VHD and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. This measure need only be considered where it is found by the Lead Agency to be appropriate and consistent with local transportation priorities. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with the adopted Congestion Management Plan, and other adopted local plans and policies, as applicable and feasible. Compliance can be achieved through adopting transportation mitigation measures such as those set forth below, or through other relevant and feasible comparable measures identified by the Lead Agency. Not all measures and/or options within each measure may apply to all jurisdictions: • Encourage a comprehensive parking policy that prioritizes system management, increase rideshare, and telecommute opportunities, including investment in non-motorized transportation and discouragement against private vehicle use, and encouragement to maximize the use of alternative transportation: o Advocate for a regional, market-based system to price or charge for auto trips during peak hours. o Ensure that new developments incorporate both local and regional transit measures into the project design that promote the use of alternative modes of transportation. o Coordinate controlled intersections so that traffic passes more efficiently through congested areas. Where traffic signals or streetlights are installed, require the use of Light Emitting Diode (LED) technology or similar technology. o Encourage the use of car-sharing programs. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient	As described in the MM-TRA-2(b), this mitigation measure is applicable if the Lead Agency has identified that a project has the potential for significant effects related to congestion management. The County of Los Angeles opted out of the Congestion Management Program (CMP) in 2019, and therefore there is no CMP that applies to the project. Nevertheless, to reduce any potential impacts related to construction and operation, Project specific project design features PDF TRAF-1, PDF TRAF-2, PDF TRAF-3, and PDF TRAF-4, described above would be incorporated.

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	locations accessible by public transportation. o Reduce VHDs, especially daily heavy-duty truck vehicle hours of delay, through goods movement capacity enhancements, system management, increasing rideshare and work-at-home opportunities to reduce demand on the transportation system, investments in non-motorized transportation, maximizing the benefits of the land use-transportation connection and key transportation investments targeted to reduce heavy-duty truck delay. • Determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. Develop a construction management plan that include the following items and requirements, if determined feasible and applicable by the Lead Agency: o A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. o Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. o Location of construction staging areas for materials, equipment, and vehicles at an approved location. o A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. The Lead Agency shall be informed who the Manager is prior to the issuance of the first permit. o Provision for accommodation of pedestrian flow. o As necessary, provision for parking management and spaces for all construction workers to ensure that construction workers do not park in on street spaces. o Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the project sponsor's expense., within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the Lead Agency (or other appropriate government agency) and/or photo documentation, at the sponsor's expense, before the issuance of a Certificate of Occupancy. o Any heavy equipment brought to the construction site shall be transported by	

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	truck, where feasible. o No materials or equipment shall be stored on the traveled roadway at any time. o Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion. o All equipment shall be equipped with mufflers. o Prior to the end of each work-day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors. o Promote "least polluting" ways to connect people and goods to their destinations. • Create an interconnected transportation system that allows a shift in travel from private passenger vehicles to alternative modes, including public transit, ride sharing, car sharing, bicycling and walking, by incorporating the following, if determined feasible and applicable by the Lead Agency: o Ensure transportation centers are multi-modal to allow transportation modes to intersect. o Provide adequate and affordable public transportation choices, including expanded bus routes and service, as well as other transit choices such as shuttles, light rail, and rail. o To the extent feasible, extend service and hours of operation to underserved arterials and population centers or destinations such as colleges. o Focus transit resources on high-volume corridors and high-boarding destinations such as colleges, employment centers and regional destinations. o Coordinate schedules and routes across service lines with neighboring transit authorities. o Support programs to provide "station cars" for short trips to and from transit nodes (e.g., neighborhood electric vehicles). o Study the feasibility of providing free transit to areas with residential densities of 15 dwelling units per acre or more, including options such as removing service from less dense, underutilized areas to do so. o Employ transit-preferential measures, such as signal priority and bypass lanes. Where compatible with adjacent land use designations, right-of-way acquisition or parking removal may occur to accommodate transit-preferential measures or improve access to transit. The use of access management shall be considered where needed to reduce conflicts between transit vehicles and other vehicles. o Provide safe and convenient access for pedestrians and bicyclists to, across, and	

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	along major transit priority streets. o Use park-and-ride facilities to access transit stations only at ends of regional transit ways or where adequate feeder bus service is not feasible. • Upgrade and maintain transit system infrastructure to enhance public use, if determined feasible and applicable by the Lead Agency, including: o Ensure transit stops and bus lanes are safe, convenient, clean and efficient. o Ensure transit stops have clearly marked street-level designation, and are accessible. o Ensure transit stops are safe, sheltered, benches are clean, and lighting is adequate. o Place transit stations along transit corridors within mixed-use or transit-oriented development areas at intervals of three to four blocks, or no less than one half mile. • Enhance customer service and system ease-of-use, if determined feasible and applicable by the Lead Agency, including: o Develop a Regional Pass system to reduce the number of different passes and tickets required of system users. o Implement "Smart Bus" technology, using GPS and electronic displays at transit stops to provide customers with "real-time" arrival and departure time information (and to allow the system operator to respond more quickly and effectively to disruptions in service). o Investigate the feasibility of an on-line trip-planning program. • Prioritize transportation funding to support a shift from private passenger vehicles to transit and other modes of transportation, if determined feasible and applicable by the Lead Agency, including: o Give funding preference to improvements in public transit over other new infrastructure for private automobile traffic. o Before funding transportation improvements that increase roadway capacity and VMT, evaluate the feasibility and effectiveness of funding projects that support alternative modes of transportation and reduce VMT, including transit, and bicycle and pedestrian access. • Promote ride sharing programs, if determined feasible and applicable by the Lead Agency, including: o Designate a certain percentage of parking spaces for ride-sharing vehicles. o Designate adequate passenger loading, unloading, and waiting areas for ride-sharing vehicles.	

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	o Provide a web site or message board for coordinating shared rides. o Encourage private, for-profit community car-sharing, including parking spaces for car share vehicles at convenient locations accessible by public transit. o Hire or designate a rideshare coordinator to develop and implement ridesharing programs. • Support voluntary, employer-based trip reduction programs, if determined feasible and applicable by the Lead Agency, including: o Provide assistance to regional and local ridesharing organizations. o Advocate for legislation to maintain and expand incentives for employer ridesharing programs. o Require the development of Transportation Management Associations for large employers and commercial/ industrial complexes. o Provide public recognition of effective programs through awards, top ten lists, and other mechanisms. • Implement a "guaranteed ride home" program for those who commute by public transit, ride-sharing, or other modes of transportation, and encourage employers to subscribe to or support the program. • Encourage and utilize shuttles to serve neighborhoods, employment centers and major destinations. • Create a free or low-cost local area shuttle system that includes a fixed route to popular tourist destinations or shopping and business centers. • Work with existing shuttle service providers to coordinate their services. • Facilitate employment opportunities that minimize the need for private vehicle trips, including: o Amend zoning ordinances and the Development Code to include live/work sites and satellite work centers in appropriate locations. o Encourage telecommuting options with new and existing employers, through project review and incentives, as appropriate. • Enforce state idling laws for commercial vehicles, including delivery and construction vehicles. • Organize events and workshops to promote GHG-reducing activities. • Implement a Parking Management Program to discourage private vehicle use, including: o Encouraging carpools and vanpools with preferential parking and a reduced parking fee.	

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	o Institute a parking cash-out program. o Renegotiate employee contracts, where possible, to eliminate parking subsidies. o Install on-street parking meters with fee structures designed to discourage private vehicle use. o Establish a parking fee for all single-occupant vehicles. • Work with school districts to improve pedestrian and bicycle to schools and restore school bus service. • Encourage the use of bicycles to transit facilities by providing bicycle parking lockers facilities and bike land access to transit facilities. • Monitor traffic congestion to determine where and when new transportation facilities are needed to increase access and efficiency. • Develop and implement a bicycle and pedestrian safety educational program to teach drivers and riders the laws, riding protocols, safety tips, and emergency maneuvers. • Synchronize traffic signals to reduce congestion and air quality. • Work with community groups and business associations to organize and publicize walking tours and bicycle events. • Support legislative efforts to increase funding for local street repair.	
TRA-3: Potential to result in a significant change in air traffic patterns, including either an increase in air traffic levels or a change in location that results in substantial safety risks.	No mitigation required.	No mitigation is required.
TRA-4: Potential to substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections), increased volumes or incompatible uses (e.g., farm equipment).	No mitigation required.	No mitigation is required.
TRA-5: Potential to result in inadequate	**MM-TRA-5(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
emergency access.	impacts to emergency access that are in the jurisdiction and responsibility of fire departments, local enforcement agencies, and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider improving emergency access and ensuring compliance with the provisions of the county and city general plan, Emergency Evacuation Plan, and other regional and local plans establishing access during emergencies, as applicable and feasible. Compliance can be achieved through adopting transportation mitigation measures as set forth below, or through other comparable measures identified by the Lead Agency: • Prior to construction, project implementation agencies can and should ensure that all necessary local and state road and railroad encroachment permits are obtained. The project implementation agency can and should also comply with all applicable conditions of approval. As deemed necessary by the governing jurisdiction, the road encroachment permits may require the contractor to prepare a traffic control plan in accordance with professional engineering standards prior to construction. Traffic control plans can and should include the following requirements: o Identification of all roadway locations where special construction techniques (e.g., directional drilling or night construction) would be used to minimize impacts to traffic flow. o Development of circulation and detour plans to minimize impacts to local street circulation. This may include the use of signing and flagging to guide vehicles through and/or around the construction zone. o Scheduling of truck trips outside of peak morning and evening commute hours. o Limiting of lane closures during peak hours to the extent possible. o Usage of haul routes minimizing truck traffic on local roadways to the extent possible. o Inclusion of detours for bicycles and pedestrians in all areas potentially affected by project construction. o Installation of traffic control devices as specified in the California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. o Development and implementation of access plans for highly sensitive land uses such as police and fire stations, transit stations, hospitals, and schools. The access plans would be developed with the facility owner or administrator. To minimize disruption of emergency vehicle access, affected jurisdictions can and should be asked to identify detours for emergency vehicles, which will then be posted by the contractor. Notify in advance the facility owner or operator of the timing, location, and duration of construction activities and the locations of detours and lane closures.	measures. Nevertheless the Project substantially conforms to this mitigation measure, because emergency access to the Project site would be provided by the existing street system, and the Project is designed and would be constructed in accordance with LAMC requirements to ensure proper emergency access. In addition, the Project includes PDF TRAF-4 which includes a construction staging and traffic control plan. These Mitigation Measures would be submitted for review and approval by LADOT prior to the issuance of any construction permits. In addition, the Applicant will submit a parking and driveway plan for review by the Los Angeles Fire Department (LAFD), the Bureau of Engineering (BOE), and the Los Angeles Department of Transportation (LADOT) to ensure compliance with all applicable code-required site access and circulation requirements as well as code-required emergency access. Additionally, the LAFD would require the Project Applicant to prepare an emergency response plan that would address the following: mapping of emergency exits, evacuation routes for vehicles and pedestrians, and locations of nearest hospitals and fire departments. Moreover, the drivers of emergency vehicles normally have a variety of options for avoiding traffic, such as using sirens to clear a path of travel or driving in the lane of opposing traffic.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	o Storage of construction materials only in designated areas. o Coordination with local transit agencies for temporary relocation of routes or bus stops in work zones, as necessary. • Ensure the rapid repair of transportation infrastructure in the event of an emergency through cooperation among public agencies and by identifying critical infrastructure needs necessary for: a) emergency responders to enter the region, b) evacuation of affected facilities, and c) restoration of utilities. • Enhance emergency preparedness awareness among public agencies and with the public at large. • Provision for collaboration in planning, communication, and information sharing before, during, or after a regional emergency through the following: o Incorporate strategies and actions pertaining to response and prevention of security incidents and events as part of the on-going regional planning activities. o Provide a regional repository of GIS data for use by local agencies in emergency planning, and response, in a standardized format. o Enter into mutual aid agreements with other local jurisdictions, in coordination with the California OES, in the event that an event disrupts the jurisdiction's ability to function.	
TRA-6: Potential to result in conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	No mitigation required.	No mitigation required.
Utilities and Service Systems		
USS-1: Potential to exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.	No mitigation required.	No mitigation is required.
USS-2: Potential to require or result in construction of new	No mitigation required.	No mitigation is required. Project analysis has demonstrated that the net increase of wastewater from the Proposed Project would not significantly impact the

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.		Hyperion Water Treatment Plan and no new or expanded entitlements for wastewater treatment would be required.
USS-3: Require or result in construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	**MM-HYD-5(b)**. **MM-USS-3(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on utilities and service systems, particularly for construction of storm water drainage facilities including new transportation and land use projects that are within the responsibility of local jurisdictions including the Riverside, San Bernardino, Los Angeles, Ventura, and Orange Counties Flood Control District, and County of Imperial. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures, as applicable and feasible. These mitigation measures are within the responsibility of the Lead Agencies and Regional Water Quality Control Boards of (Regions 4, 6, 8, and 9) pursuant to the provisions of the National Flood Insurance Act, stormwater permitting requirements for stormwater discharges for new constructions, the flood control act, and Urban Waste Management Plan. Such mitigation measures, or other comparable measures, capable of avoiding or reducing significant impacts on the use of existing storm water drainage facilities and can and should be adopted where Lead Agencies identify significant impacts on new storm water drainage facilities.	The Project substantially conforms to these mitigation measures. Construction of the Project would comply with applicable NPDES and City requirements including those requiring the preparation of a Project-specific SWPPP. In addition, the Project would be designed to comply with the City of Los Angeles's Low Impact Development (LID) design standard.
USS-4: Have sufficient water supplies available to serve the project from existing entitlements and resources or will require new or expanded entitlements.	**MM-USS-4(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects on water supplies from existing entitlements requiring new or expanded services in the vicinity of HQTAs that are in the jurisdiction and responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance with EO B-29-15, provisions of the Porter –Cologne Water Quality Control Act, California Domestic Water Supply Permit requirements, and applicable County, City or other Local provisions. Such measures may include the following or other comparable measures identified by the Lead Agency: • Reduce exterior consumptive uses of water in public areas, and should promote reductions in private homes and businesses, by shifting to drought-tolerant native landscape plantings (xeriscaping), using weather-based irrigation systems, educating other public agencies about water use, and installing related water pricing incentives.	The Project's impacts would be less than significant. Nevertheless the Project substantially conforms to this mitigation measure because the City has determined that the projected water supply available during normal, single-dry water years as included in the 25-year projection contained in its adopted 2015 Urban Water Management Plan can accommodate the projected water demand associated with the Project, in addition to the existing and planned future development. The analysis estimates that the Project would consume approximately 85,624 gpd, or 95.9 acre-feet per year (afy), Based on LADWP's 2015 Urban Water Management Plan, projected water demand for the City would be met by the available supplies during an average year, single-dry year, and multiple-dry year through the year 2040.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	• Promote the availability of drought-resistant landscaping options and provide information on where these can be purchased. Use of reclaimed water especially in median landscaping and hillside landscaping can and should be implemented where feasible. • Implement water conservation best practices such as low-flow toilets, water-efficient clothes washers, water system audits, and leak detection and repair. • Ensure that projects requiring continual dewatering facilities implement monitoring systems and long-term administrative procedures to ensure proper water management that prevents degrading of surface water and minimizes, to the greatest extent possible, adverse impacts on groundwater for the life of the project. Comply with appropriate building codes and standard practices including the Uniform Building Code. • Maximize, where practical and feasible, permeable surface area in existing urbanized areas to protect water quality, reduce flooding, allow for groundwater recharge, and preserve wildlife habitat. Minimized new impervious surfaces to the greatest extent possible, including the use of in-lieu fees and off-site mitigation. • Avoid designs that require continual dewatering where feasible. • Where feasible, do not site transportation facilities in groundwater recharge areas, to prevent conversion of those areas to impervious surface.	Therefore, the Project would not be anticipated to require new or expanded water entitlements. It is estimated the Project will demand a total net increase of approximately 95.9 afy] of water. The Project's increase in water demand would fall within the available and projected water supplies reported in the 2015 UWMP for the City for 2040 (675,700 afy) and would constitute less than 0.01 percent of the City's projected 2040 water supply. Entitlements for water supply would be required. The Project would emphasize water conservation, which would be achieved through the use of energy star appliances and low flow plumbing fixtures.
USS-5: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's commitments.	No mitigation required.	No mitigation is required.
USS-6: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	**MM-USS-6(b):** Consistent with the provisions of Section 15091 of the State CEQA Guidelines, SCAG has identified mitigation measures capable of avoiding or reducing the significant effects to serve landfills with sufficient permitted capacity to accommodate solid waste disposal needs, in which 75 percent of the waste stream be recycled and waste reduction goal by 50 percent that are within the responsibility of public agencies and/or Lead Agencies. Where the Lead Agency has identified that a project that has the potential for significant effects, the Lead Agency can and should consider mitigation measures to ensure compliance pursuant to the provisions of the Solid Waste Diversion Goals and Integrated Waste Management Plan, as applicable and feasible. Such measures may include the following or other comparable measures	The Project's impacts would be less than significant as a result of the implementation of regulatory compliance measures. Nevertheless the Project substantially conforms to this mitigation measure because the Project would comply with the City of Los Angeles Green Building Code, which requires the recycling and/or salvaging of 65 percent of non-hazardous construction and demolition waste. Construction and Demolition materials would be conveyed pursuant to the City's Waste Hauler Permit Program (Ordinance 181519),

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	identified by the Lead Agency: • Integrate green building measures consistent with CALGreen (California Building Code Title 24) into project design including, but not limited to the following: o Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities. o Inclusion of a waste management plan that promotes maximum C&D diversion. o Source reduction through (1) use of materials that are more durable and easier to repair and maintain, (2) design to generate less scrap material through dimensional planning, (3) increased recycled content, (4) use of reclaimed materials, and (5) use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings, etc.). o Reuse of existing structure and shell in renovation projects. o Design for deconstruction without compromising safety. o Design for flexibility through the use of moveable walls, raised floors, modular furniture, moveable task lighting and other reusable building components. o Development of indoor recycling program and space. o Discourage the siting of new landfills unless all other waste reduction and prevention actions have been fully explored. If landfill siting or expansion is necessary, site landfills with an adequate landfill-owned, undeveloped land buffer to minimize the potential adverse impacts of the landfill in neighboring communities. o Locally generated waste should be disposed of regionally, considering distance to disposal site. Encourage disposal near where the waste originates as much as possible. Promote green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with SCAQMD and 2016 RTP/SCS policies can and should be required. o Encourage waste reduction goals and practices and look for opportunities for voluntary actions to exceed the 50 percent waste diversion target. o Encourage the development of local markets for waste prevention, reduction, and recycling practices by supporting recycled content and green procurement policies, as well as other waste prevention, reduction and recycling practices. o Develop ordinances that promote waste prevention and recycling activities such as: requiring waste prevention and recycling efforts at all large events and venues; implementing recycled content procurement programs; and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities.	effective January 1, 2011. Under this Ordinance, all private waste haulers collecting solid waste within the City, including C&D waste, are required to obtain Assembly Bill 939 (AB 939) Compliance Permits and to transport C&D waste to City certified C&D processing facilities.

Topic	2016 RTP/SCS PEIR Project Level Mitigation Measure	Applicability to Project
	o Develop alternative waste management strategies such as composting, recycling, and conversion technologies. o Develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts. o Require the reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). o Integrate reuse and recycling into residential industrial, institutional and commercial projects. o Provide recycling opportunities for residents, the public, and tenant businesses. o Provide education and publicity about reducing waste and available recycling services. o Continue to adopt programs to comply with state solid waste diversion rate mandates and, where possible, encourage further recycling to exceed these rates. o Implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.	
USS-7: Potential to comply with federal, state, and local statutes and regulations related to solid waste.	No mitigation required.	No mitigation is required.

SECTION 5

SCEA Initial Study Checklist

LEAD CITY AGENCY	COUNCIL DISTRICT	DATE
Department of City Planning	6	8/27/20

RESPONSIBLE AGENCIES

City of Los Angeles Department of City Planning

PROJECT TITLE/NO.	CASE NO.
7940 Lankershim Boulevard	ENV-2019-808-SCEA CPC-2019-807-ZCJ-HD-MCUP-SPR
PREVIOUS ACTIONS CASE NO.	☐ DOES have significant changes from previous actions. ☒ DOES NOT have significant changes from previous actions.

PROJECT DESCRIPTION:

The Project Site is an irregular-shaped parcel bordered by North Lankershim Boulevard to the west and West Strathern Street to the north. To the immediate east of the Project Site are single-family residential uses and Blythe Street, which dead ends at the east end of the Project Site. Two commercial properties are currently located on the Project Site which includes a one-story commercial building, a one-story office building, and associated surface parking and storage areas. The Project would demolish the existing structures to construct the Project.

The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The Project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet (sf) and a Floor Area Ratio (FAR) of 3.32:1. The residential units would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households and Very Low Income Households. Of these, five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households.

Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in structured parking located within one subterranean level and one above-ground level. All parking would be fully enclosed and screened from public view. The Project would provide 224 bicycle spaces in the structured parking (30 short term bicycle spaces and 194 long term bicycle spaces).

Open space areas and amenities for residents would be include a central courtyard that would be landscaped and open to the sky. Other amenities would include a community room, recreational room, swimming pool and spa area, pet park, and private balconies.

ENVIRONMENTAL SETTING:

The Project Site is within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan area. The Project Site is bounded by North Lankershim Boulevard to the west and West Strathern Street to the north. The Project Site is in a fully developed, urbanized location surrounded by a mix of land uses, including commercial, residential, industrial, office, and institutional uses.

PROJECT LOCATION:

The Project Site is bounded by North Lankershim Boulevard to the west and West Strathern Street to the north. The Project Site is surrounded by a mix of land uses, including commercial, residential, industrial, office, and school uses. Immediately northwest of the Project Site at the corner of North Lankershim Boulevard and West Strathern Street is a fast food restaurant. Further north along Lankershim Boulevard are various automotive, restaurant, and retail uses. Also to the north of the Project Site, along the opposite northern side of Strathern Street are single-family uses. To the west, along North Lankershim Boulevard are automotive and restaurant, and other commercial uses. Further west, land uses transition to residential uses. To the east, the adjoining parcels are developed for residential uses. Further to the east is Arminta Street Elementary School and Arminta Street Early Education Center. Immediately to south of the Project Site are single-family residential and automotive uses (Schiro's Collision Repairs). Further to the south is Arminta Street and various residential uses, commercial and automotive uses.

The Project is located approximately 0.80 miles south of Interstate 5 (I-5) and 1.2 miles west of State Route 170 (SR 170). The Project Site is also within the vicinity of the major thoroughfares of Vineland Avenue/Sunland Boulevard to the east, Saticoy Street to the South, and Laurel Canyon Boulevard to the west. The Project is 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line.

PLANNING DISTRICT Sun Valley-La Tuna Canyon Community Plan		**STATUS:** ☐ PRELIMINARY ☐ PROPOSED ☒ ADOPTED
EXISTING LAND USE & ZONE Community Commercial C2-1VL R1-1	**MAX. DENSITY ZONING** FAR of 3:1 C2-1VL: 1 dwelling unit/400 square feet R1-1: 1 dwelling unit/5,000 square feet	☒ DOES CONFORM TO PLAN
PLANNED LAND USE & ZONE Community Commercial RAS4-1-CUGU	**MAX. DENSITY PLAN** 1 dwelling unit / 400 square feet	☐ DOES NOT CONFORM TO PLAN
SURROUNDING LAND USES See Section 2, Project Description	**PROJECT DENSITY** 1 dwelling unit / 473 square feet	☐ NO DISTRICT PLAN
NAME OF PERSON PREPARING THIS FORM Lilian Rubio	**TITLE** City Planning Associate	
TELEPHONE NUMBER 213-978-1840	**ADDRESS** 200 North Spring Street, 7th Floor Los Angeles, CA 90012	
Nicholas Hendricks	**TITLE** Senior City Planner	
SIGNATURE (OFFICAL)	**DATE** 8/27/20	

☞ **DETERMINATION (To be completed by Lead Agency)**

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions on the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

☒ l find that the Project is a qualified "transit priority project" that satisfies the requirements of Sections 21155 and 21155.2 of the Public Resources Code (PRC), and/or a qualified "residential or mixed use residential project" that satisfies the requirements of Section 21159.28(d) of the PRC, and although the project could have a potentially significant effect on the environment, there will not be a significant effect in this case, because the SUSTAINABLE COMMUNITIES ENVIRONMENTAL ASSESSMENT (SCEA) identifies measures that either avoid or mitigate to a level of insignificance all potentially significant or significant effects of the Project.



Lilian Rubio, City Planning Associate

SIGNATURE **NAME**

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less that significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of a mitigation measure has reduced an effect from "Potentially Significant Impact" to "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analysis," cross referenced).

5. Earlier analysis must be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR, or negative declaration. Section 15063 (c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously

prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated

7. Supporting Information Sources: A sources list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whichever format is selected.

9. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant With Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards & Hazardous Materials	☐ Public Services
☐ Agriculture and Forestry Resources	☐ Hydrology/Water Quality	☐ Recreation
☐ Air Quality	☐ Land Use/Planning	☐ Transportation/Traffic
☐ Biological Resources	☐ Mineral Resources	☐ Tribal Cultural Resources
☐ Cultural Resources	☒ Noise	☐ Utilities/Service Systems
☐ Geology/Soils	☐ Population/Housing	☒ Mandatory Findings of Significance
☐ Greenhouse Gas Emissions		

INITIAL STUDY CHECKLIST (To be completed by the Lead City Agency)

☞ BACKGROUND

PROPONENT NAME	**PHONE NUMBER**
Lankershim Crossing, LLC	(747) 247-2770

PROPONENT ADDRESS

23622 Calabasas Rd., Suite 121, Calabasas, CA 91302

AGENCY REQUIRING CHECKLIST	DATE SUBMITTED
Department of City Planning	8/27/20

PROPOSAL NAME (If Applicable)
7940 Lankershim Boulevard Project

☞ ENVIRONMENTAL IMPACTS

(Explanations of all potentially and less than significant impacts are required to be attached on separate sheets)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural feature within a city-designated scenic highway?	☐	☐	☒	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒
3. AIR QUALITY. Where available, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the air basin is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐
4. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect state or federally protected wetlands (including, but not limited to, marsh vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (e.g., oak trees or California walnut woodlands)?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒
5. CULTURAL RESOURCES: Would the project:				
a. Cause a substantial adverse change in significance of a historical resource pursuant to § 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in significance of an archaeological resource pursuant to State CEQA §15064.5?	☐	☐	☒	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
6. ENERGY. Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐
7. GEOLOGY AND SOILS. Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, caused in whole or in part by the project's exacerbation of the existing environmental conditions? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
8. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment caused in whole or in part by the project's exacerbation of existing environmental conditions?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
10. HYDROLOGY AND WATER QUALITY. Would the project result in:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐
11. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
12. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☒	☐
13. NOISE. Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
14. POPULATION AND HOUSING. Would the project:				
a. Induce substantial unplanned population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b. Displace substantial numbers of existing people or housing necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
15. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a. Fire protection?	☐	☐	☒	☐
b. Police protection?	☐	☐	☒	☐
c. Schools?	☐	☐	☒	☐
d. Parks?	☐	☐	☒	☐
e. Other governmental services?	☐	☐	☒	☐
16. RECREATION.				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐
17. TRANSPORTATION. Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d. Result in inadequate emergency access?	☐	☐	☒	☐
18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?	☐	☐	☒	☐
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☒	☐
19. UTILITIES. Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒
21. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b. Does the project have impacts which are individually limited, but cumulatively considerable?("Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).	☐	☒	☐	☐
c. Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

☞ **DISCUSSION OF THE ENVIRONMENTAL EVALUATION (Attach additional sheets if necessary)**

PREPARED BY	**TITLE**	**TELEPHONE #**	**DATE**
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SECTION 6

Sustainable Communities Environmental Analysis

The following discussion provides responses to each of the questions set forth in the City of Los Angeles Initial Study Checklist as adjusted for use as a Sustainable Communities Environmental Assessment (SCEA) pursuant to Public Resources Code (PRC) Sections 21155.2(b) and 21159.28. This analysis assumes all applicable mitigation measures (MMs) from the RTP/SCS are incorporated. Where applicable, project specific project design features (PDFs) and/or MMs are identified in the analysis to help reduce or avoid significant impacts on the environment.

6.1 Aesthetics

On September 27, 2013, Governor Brown signed Senate Bill (SB) 743, which became effective on January 1, 2014. The purpose of SB 743 is to streamline the review under CEQA for several categories of development projects including the development of infill projects in transit priority areas (TPAs). Public Resources Code Section 21099 (a)(7) defines a TPA as an area located within 0.5 miles (2,640 feet) of a major transit stop that is "existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations." As defined in Public Resources Code Section 21064.3, a major transit stop is a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.[1]

PRC Section 21099(d)(1) states that a project's aesthetic impacts shall not be considered a significant impact on the environment if:

1. The project is a residential, mixed-use residential or employment center project, and

2. The project is located on an infill site within a transit priority area.

Further provisions of SB 743 provide that this legislation "does not affect, change, or modify the authority of a lead agency to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies" (PRC Section 21099(d)(2)(A)), and that "aesthetic impacts do not include impacts on historical or cultural resources." Section 21099(d)(2)(B). As the Project is not located within a state designated scenic highway and does not contain and is not in the near vicinity of any historic resources, the Project would have a

[1] The City of Los Angeles defines Peak Periods to be between 6:00 to 9:00 a.m. and 3:00 to 7:00 p.m. https://planning.lacity.org/ordinances/docs/toc/TOCGuidelines.pdf.

significant impact on cultural or historic resources, including existing scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural features within a state-designated scenic highway. The Project's potential impacts on cultural and historic resources are discussed in more detail in Section 6.5, *Cultural Resources*, below. Therefore, no mitigation is required with respect potential aesthetic impacts on cultural or historic resources. Consistent with SB 743, City of Los Angeles Zoning Information File ZI No. 2452 states that visual resources, aesthetic character, shade and shadow, light and glare, and scenic vistas or any other aesthetic impact as defined in the City's CEQA Threshold Guide shall not be considered a significant impact for infill projects within TPA pursuant to CEQA. The City of Los Angeles Zoning Information File ZI No. 2452 also notes that the limitation of aesthetic impacts pursuant to PRC Section 21099 does not include impacts to historic or cultural resources. Therefore, under ZI No. 2452, impacts to cultural resources, such as historical buildings and districts will need to be evaluated pursuant to CEQA regardless of project location.

The Project would be a mixed-use, infill project located in a TPA. Nearby transit service includes Metro Bus lines 94, 152/353, 169, 222, 224, 230, 353, and 794. Metro Bus line 152 provides service to Woodland Hills and Sun Valley and travels generally along Roscoe Boulevard and Vineland Avenue north of the Project Site with service intervals of less than 15 minute during peak hours. Metro Bus line 353 is a limited stop local line that travels from Woodland Hills to North Hollywood via Roscoe Boulevard and Lankershim Boulevard. This line provides service to Northridge, Panorama City and Sun Valley and travels along Roscoe Boulevard and Lankershim Boulevard.

Metro Bus line 224 travels from Sylmar to Studio City via Lankershim Boulevard immediately adjacent to the Project Site. This bus line provides service to Pacoima, Sun Valley, and North Hollywood with service intervals of less than 15 minute during peak hours. As such, the Project Site is located near a high-quality transit corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Furthermore, Metro Bus lines 224 and 353/152 run along Lankershim Boulevard with a connection to the Metro Red Line at Universal Studios. The Metro Red Line route provides a connection to downtown Los Angeles through the Hollywood and Mid-Wilshire areas. The Metro Red Line provides a direct link to Union Station. Union Station provides access to the majority of the region's rail and bus lines, linking to major job centers throughout Los Angeles County. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster.

Because of the mixed-use residential character of the Project and its location on an infill site within a TPA, the Project's aesthetic impacts will not be considered significant impacts on the environment. Accordingly, the Project's aesthetic impacts shall not be considered significant impacts on the environment pursuant to Public Resources Code Section 21099. While Section 21099 prohibits aesthetic impacts from being considered significant environmental impacts pursuant to CEQA, it does not affect the ability of the City of Los Angeles to implement design review through its ordinances or other discretionary powers. Therefore, an assessment of the Project's potential aesthetics impacts is not required.

Except as provided in Public Resources Code Section 21099, would the project:

a. Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, or other locally recognized desirable aesthetic natural features within a state-designated scenic highway?

Less Than Significant Impact.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact.

6.2 Agricultural and Forest Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project Site is located within a highly urbanized area and is currently developed with a single-story office and a single-story commercial building and associated uses. No agricultural uses, or related farmland operations, are present within the Project Site or surrounding area. The Project Site is not located on designated Prime Farmland, Unique Farmland, or Farmland

of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP). The urban character of the Project Site would be consistent with the FMMP's definition of "Urban and Built-Up Land," which does not constitute farmland. Therefore, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impact would occur, and no mitigation measures are required.

Conclusion

The Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impact would occur, and no mitigation measures are required.

b. Conflict with the existing zoning for agricultural use, or a Williamson Act Contract?

No Impact. The Williamson Act of 1965 allows local governments to enter into contract agreements with local landowners with the purpose of trying to limit specific parcels of land to agricultural or other related open space use. The Project Site is not zoned for agricultural uses presently and will not be rezoned to permit agricultural uses and is not subject to a Williamson Act contract.

Conclusion

The Project would not conflict with any zoning for agricultural uses or a Williamson Act Contract and, thus, no impacts would occur. No mitigation measures are required.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The Project Site is currently developed with a single-story office and a single-story commercial building and associated uses and is not zoned for forestry or timberland uses. The Project Site is within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan area and is designated as Neighborhood Commercial, which corresponds to the Property's current zoning of C2-1VL and R1-1. The Project would require a zone change from the current C2-1VL and R1-1 to RAS4-1-CUGU (residential/accessory). The proposed zone change would permit commercial and residential uses on the Project Site as proposed by the Project, and would not conflict with forest land or timberland zoning or result in the loss of forest land or conversion of forest land or timberland to non-forest uses. Therefore, no impact would occur, and no mitigation measures would be required.

Conclusion

The Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland zoning and no impact would occur, and no mitigation measures would be required.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. No Impact. The Project Site does not contain farmland, forest land, or timberland. Accordingly, the Project would not result in the conversion of farmland to non-agricultural uses or forest land to non- forest uses. Therefore, no impacts would occur, and no mitigation measures would be required.

Conclusion

No forest uses are located on the Project Site or within the area. Therefore, no impacts would occur, and no mitigation measures would be required.

e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact. The Project Site does not contain farmland, forest land, or timberland. Accordingly, the Project would not result in the conversion of farmland to non-agricultural uses or forest land to non- forest uses. No mitigation measures would be required.

Conclusion

The Project Site does not contain farmland, forest land, or timberland. No impacts would occur, and no mitigation measures would be required.

Cumulative Impacts: Agricultural and Forest Resources

As with the Project, the related projects are located within a developed, urbanized area of the City of Los Angeles generally zoned for commercial and residential uses and their project sites do not support existing farming, agricultural or forest-related operations. Therefore, development of the related projects together with the Project would not result in the conversion of State-designated agricultural land from an agricultural use to a non-agricultural use or result in the loss of forest land or the conversion of forest land to non-forest use.

Conclusion:

No cumulative impacts on agriculture and forest resources would occur and no mitigation measures would be required.

6.3 Air Quality

The analysis is based on the information provided in the Project-specific Air Quality and Greenhouse Gas Technical Report contained in Appendix A.

Where available and applicable, the significance criteria established by the South Coast Air Quality Management District (SCAQMD) may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Project Site is located within the South Coast Air Basin (Basin). Air quality planning for the Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The air quality plans applicable to the Project Site are the SCAQMD's 2016 Air Quality Management Plan (AQMP), the City of Los Angeles General Plan Air Quality Element and the 2016-2040 RTP/SCS.

2016 AQMP

The 2016 AQMP was adopted by the SCAQMD as a program to lead the Basin into compliance with criteria pollutant standards and other federal requirements for which the Basin is not in compliance. The AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by the SCAG 2016 RTP/SCS. SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies." A project is considered to be consistent with the AQMP and not obstruct its implementation if, in part, it is consistent with the demographic and economic growth projections used in the formulation of the AQMP.

The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess: (1) whether the project would directly obstruct implementation of the plan through an increase in the frequency or severity of existing air quality violations, or cause or contribute to, new violations, or delay timely attainment of air quality standards, and (2) whether it is consistent with the demographic and economic assumptions (typically land use related, such as resultant employment or residential units) upon which the plan is based.

Criterion No. 1

As discussed below under Items 6.3b and 6.3c, the Project would not obstruct implementation of the AQMP because emissions resulting from its construction (with implementation of PDF AQ-1 (identified under Item 6.3b below) and operation would not exceed SCAQMD's regional mass emissions thresholds and localized significance thresholds (LSTs). The Project's emissions would therefore not increase concentrations of criteria pollutants or their precursors in a manner that could obstruct SCAQMD's efforts to achieve attainment of ambient air quality standards for any criteria pollutant for which it is currently not in attainment, or jeopardize the current attainment status of the Basin for other criteria pollutants.

Criterion No. 2

The Project is also consistent with the AQMP in that the Project has incorporated control strategies set forth in the AQMP for achieving Basin-wide emission reduction goals and the Project is

consistent with the demographic and economic assumptions upon which the plan is based. The following sections provide a discussion of the Project's incorporation of emission control measures and the Project's consistency with demographic and economic assumptions used in development of the AQMP.

Emission Control Measures

During the construction period, the Project would require contractors to adhere to the California Air Resources Board's (CARB) on-road vehicle and off-road equipment requirements, which would limit the level of construction emissions caused by the Project. Project design features that limit the level of construction emissions are identified in PDF-AQ-1. In addition, the Project would be required pursuant to state law to use contractors that are in compliance with the CARB Air Toxic Control Measure that limits heavy duty diesel motor vehicle idling to no more than 5 minutes at any given location.[2] The Project contractor(s) would also be required by state regulations to comply with the fleet on-road heavy duty vehicle emissions standards consistent with Measure MOB-08 from the 2016 AQMP. These control strategies are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment and are implemented by accelerating the replacement of older engines that produce higher pollutant emissions with newer engines that produce lower levels of pollutants. The Project would comply with regulatory requirements to minimize short-term emissions from on-road and off-road diesel vehicles and equipment and SCAQMD's rules for controlling fugitive dust and other construction emissions, as identified in PDF-AQ-1. Compliance with these measures and requirements is consistent with the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities.

The AQMP includes transportation control measures that are intended to reduce regional mobile source emissions. Although much of the planned improvements in air quality identified in the AQMP are implemented at scales greater than at the project level (i.e., vehicle emissions standards), the Project's location, design, and land use would support a reduction in vehicle trips by increasing residential density on a major thoroughfare in an urbanized area near public transit.

The Project would require a zone change from the current C2-1VL and R1-1 to RAS4-1-CUGU (residential/accessory). The zone change is necessary to ensure that zoning for the Project Site is consistent with state law. Portions of the Project Site's current zoning are inconsistent with its Neighborhood Commercial General Plan designation. Therefore, the Project's zone change achieves the state law requirement to ensure that zoning is always consistent with the general plan. Moreover, the new zoning designations permit uniform development of multi-family residential uses; both the C2 and RAS4 zoning designation allow for R4 [multi-dwelling] uses under the City's zoning regulations. The new zoning designation would also permit the development of limited ground floor commercial uses, which allows for mixed-uses at the Project Site. Because the introduction of mixed-uses is a key principle in efforts to promote smart growth, the Project is consistent with the AQMP's mobile-source emission reduction strategies. The Project proposes

[2] The Air Toxic Control Measure (13 CCR Section 2485) specifies measures to reduce public exposure to diesel particulate matter and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle-reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. The Air Toxic Control Measure is incorporated as PDF-AQ-1.

increased density on an urban infill site by locating residential, and commercial uses in an identified Transit Priority Area (TPA) that is in close proximity to multiple bus stops with high frequency transit service, including Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. By providing prewiring for EV charging spaces at the Project Site, the Project would also support the AQMP's emission reduction strategy of accelerating the deployment of zero and near-zero-emissions technologies.

The Project would also provide short and long-term bicycle parking consistent with Los Angeles Municipal Code (LAMC) Section 12.21.A.16(a)(1), which would encourage non-motorized transportation trips. Furthermore, as a mixed-use development that is located within walking distance of a variety of land uses in the area (including residential, office, commercial, industrial, school, and service uses), and multiple transit options, the Project would also encourage pedestrian travel and reduce vehicle trips and corresponding vehicle emissions. Thus, because Project's location, design, and land use would reduce vehicle trips, VMT, and associated emissions, the Project would be consistent with the mobile emission reduction goals of the AQMP.

Furthermore, the AQMP also promotes and encourages the use of solar energy systems to reduce criteria pollutant emissions over time. Control measure ECC-02 seeks criteria pollutant co-benefits from the implementation of required energy efficiency mandates such as California's Title 24 program. The Project would be prewired for rooftop solar use in accordance with the CALGreen Code and would include solar panels on 15 percent of the rooftop space of the mixed-use building. Thus, the Project would be consistent with the energy emission reduction goals of the AQMP.

Demographic and Economic Projections

The Project would generate short-term construction jobs, but these workers are expected to be drawn from a regional pool of construction workers who travel among construction sites as individual projects are completed. Moreover, these jobs would be relatively small in number and temporary in nature. Therefore, the Project's construction jobs would not conflict with the long-term employment projections upon which the AQMP is based because such jobs would be relatively small in number and primarily drawn from the existing regional employment pool. Long-term operation of the Project would involve the employment of approximately 60 workers for the new commercial uses at the Project Site; these workers are expected to be drawn from the regional labor pool and result in, at most, only minimal population growth with respect to SCAG employment projections.[3] Thus, employment associated with Project operation would not conflict with the long-term employment projections used in the preparation of the AQMP due to the small number of employees that would be required for Project operation.

[3] SCAG projects employment in Los Angeles County alone would rise from 4.2 million in 2012 to 5.2 million in 2040 (SCAG 2016).

The Project is anticipated to be operational in 2023. The Project-related resident population growth is estimated to be approximately 1,050.[4] According to SCAG, the total population for the City of Los Angeles in 2018 is 4,059,665 persons. In 2023, the projected occupancy year of the Project, the City of Los Angeles is anticipated to have a population of approximately 4,184,605 persons,[5] a growth of 124,940 persons from the 2018 projection. The Project's estimated 1,050 residents would represent approximately 0.8 percent of the population growth forecasted by SCAG in the City of Los Angeles between 2018 and 2023.

The Project's growth is consistent with the 2016 RTP/SCS goals and objectives under Senate Bill (SB) 375 to implement "smart growth" and state efforts to meet goals in the reduction of GHG. The 2016 RTP/SCS seeks improved "mobility and accessibility… to reach desired destinations with relative ease and within a reasonable time, using reasonably available transportation choices" (SCAG 2016). The 2016 RTP/SCS seeks to implement "strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing), and expanded housing and transportation choices" (SCAG 2016). The Project's proximity to public transit allows the Project's projected growth to be accommodated by existing and future transit options. Additionally, the Project is located in an urban infill location that is within walking distance to a variety of land uses that include office, commercial, school, and business service uses. As such, the Project's location and land use would reduce reliance on automobiles.

The population and employment growth resulting from the Project would be consistent with SCAG's regional forecast projections and, in turn, consistent with the growth projections accounted for in SCAQMD's AQMP. Therefore, the Project would not conflict with, or obstruct implementation of, the AQMP. The Project would not conflict with the goals and objectives of the 2016 RTP/SCS.

City of Los Angeles General Plan Air Quality Element

In addition to the Project's consistency with the 2016 AQMP and 2016 RTP/SCS goals and objectives, the Project's consistency with the applicable goals, objectives, and policies of the City's General Plan Air Quality Element is also evaluated and shown in Table 6-1 below. As discussed in Table 6-2, the construction and operation of the Project would not conflict with or be inconsistent with applicable air quality policies of the General Plan.

TABLE 6-1
CONSISTENCY OF PROJECT WITH APPLICABLE GOALS, POLICIES, AND OBJECTIVES OF THE CITY'S GENERAL PLAN AIR QUALITY ELEMENT

Goal/Objective/Policy	Project Consistency Assessment
Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.	**Consistent.** The Project would be consistent with SCAG RTP/SCS goals and objectives under SB 375 to implement "smart growth." The Project would provide residential uses and employment opportunities in proximity to job centers in Los Angeles where people can live and work and have

[4] The Project population assumes an average household size of 2.43 based on the Citywide Person per Household factor for multifamily units provided by the Department of City Planning Demographics Unit and as published in the 2016 American Community Survey.

[5] Based on a linear interpolation of SCAG data prepared for the 2016 RTP/SCS.

Goal/Objective/Policy	Project Consistency Assessment
	access to convenient modes of transportation that provides options for reducing reliance on automobiles and minimizing associated air pollutant emissions. The Project would meet the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code. The Project would also reduce VMT as a result of its urban infill location in a TPA that is in proximity of public transportation, including multiple bus stops with high frequency transit service such as the Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Project would add new infill residential units, with convenient access to public transit, which would allow people to live near work and recreational amenities. As a result, the Project would provide people with convenient mobility options and a wide range of economic/employment opportunities.
Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan, increase traffic mobility, and sustain economic growth citywide.	**Consistent.** As reflected above, the Project would be consistent with the SCAG growth projections that are used in preparing the AQMP. The Project would occupy a location that is highly accessible by regional and local bus lines and the Metrolink rail system. As such, the Project would be supportive of the Transportation Control Measures in the AQMP related to reducing vehicle trips for employees, visitors and residents. The Project would provide infill residential and commercial uses, which would allow people to live near work and recreational amenities.
Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.	**Consistent.** The Project would eliminate a large surface parking lot, two older buildings, and unpaved areas on the Project Site and replace them with a modern, energy-efficient building. The Project would also incorporate measures that would reduce particulate air pollutants from unpaved areas, parking lots, and construction sites. The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403. The Project would also comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks reducing exhaust diesel particulate matter (DPM) emissions. The Project contractor(s) would also be required by state regulations to comply with the fleet on-road heavy duty vehicle emissions standards consistent with Measure MOB-08 from the AQMP. These control strategies are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment and are implemented by accelerating the replacement of older engines that produce higher pollutant emissions with newer engines that produce lower pollutant emissions.
Policy 1.3.1: Minimize particulate emissions from construction sites.	**Consistent.** The Project would incorporate measures that would reduce particulate air pollutants from construction activity as described above under Objective 1.3.
Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Consistent.** The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403, which would minimize particulate emissions from unpaved roads and parking lots associated with construction-related vehicular traffic. The Project would also reduce unpaved, unlandscaped areas on the Project Site.
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	**Consistent.** The Project's land use characteristics would reduce trips and VMT due to its urban infill location in a TPA that includes nearby housing, employment, office, commercial, and service uses with nearby access to multiple nearby public transportation routes.

Goal/Objective/Policy	Project Consistency Assessment
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	**Consistent.** The Project is near existing public transportation, including existing regional and local Metro bus lines and a Metrolink station. The Project would locate infill residential and commercial land uses in an area with access to multiple other destinations, including job centers and other commercial uses. These features would reduce trips and encourage residents to utilize alternative modes of transportation. In addition, the Project would implement a Transportation Demand Management (TDM) program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the Transportation Impact Study (TIS) prepared for the proposed Project. Strategies that would be implemented as part of the TDM program include educational programs, a transportation information center/kiosk, bicycle amenities, and a contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements,
Policy 2.1.1: Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	**Consistent.** The Project would be near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project includes 224 bicycle parking spaces for the residential and commercial uses of the Project in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating this development on a site located within walking distance of businesses in the area, as well as within close proximity to multiple transit options. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. In addition, Transportation System Management (TSM) improvements, including the upgrade of existing signal controllers, replacement of existing video fibers, and upgrade of existing pedestrian push buttons, would be installed at key intersections in the Project vicinity, which would reduce traffic congestion. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
Objective 2.2: It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.	**Consistent.** The Project would install pre-wiring for EV charging spaces for 30 percent of the parking capacity at the Project Site. In addition, of the 30 percent of parking spaces prewired for electric charging, 10 percent would include installed chargers for immediate use by EVs. Furthermore, the Project's location would encourage non-automotive transportation to and from the Project Site. The Project would be located within proximity of existing public transportation and would provide on-site bicycle parking for building residents, employees, and visitors. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
Policy 2.2.1: Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** The Project is near public transportation, including existing regional and local Metro bus lines and Metrolink rail, and would provide 224 bicycle parking spaces for residents, employees, and visitors. These features would encourage non-automotive transportation to and from the Project Site. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.

Goal/Objective/Policy	Project Consistency Assessment
Policy 2.2.2: Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** The Project would include 224 bicycle parking spaces in accordance with LAMC requirements, which would encourage non-automotive travel. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
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.	**Consistent.** The Project would locate a mixed-use development in a TPA within walking distance of existing bus lines and a Metrolink station. The Project would also provide long-term and short-term bicycle parking which would help people have more opportunities to bicycle, walk and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that are easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people as they would have greater opportunities for pedestrian and bicycling activity and to reduce their reliance on automobiles.
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The Project would provide a new mixed-use development that would include residential and commercial (including restaurant) land uses in an infill location within proximity to public transportation. The Project is located an urban area surrounded by commercial, residential, restaurant, office, and service uses.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would be located within proximity of multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project includes 224 bicycle parking spaces for the residential and commercial uses of the Project in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating this development on a site located within walking distance of businesses in the area, as well as within close proximity to multiple transit options. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. Additionally, the Project would install pre-wiring for EV charging spaces for30 percent of the parking capacity at the Project Site. In addition, of the 30 percent of parking spaces prewired for electric charging, 10 percent would include installed chargers for immediate use by EVs.
Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The Project's mixed-use nature and its location near multiple transportation routes along with the provision of 224 bicycle parking spaces would help reduce vehicular trips and encourage use of alternative transit. In addition, TSM improvements, including signal controllers and CCTV, would be installed at key intersections in the Project vicinity, which would reduce traffic congestion. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
Goal 5: Energy efficiency through land use and transportation planning, the use of renewable resources and less polluting fuels, and the	**Consistent.** The Project would be required to comply with California Title 24 Building Standards Code and CALGreen Code. Energy saving and sustainable design would be incorporated throughout the Project. The Project would emphasize energy conservation, which would be achieved

Goal/Objective/Policy	Project Consistency Assessment
implementation of conservation measures, including passive methods such as site orientation and tree planting.	through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems. In addition, of the 30 percent of the parking spaces that would be prewired for charging, 10 percent would have chargers installed for immediate use by EVs. The Project would include also include solar panels on 15 percent of the mixed-used building's rooftop. As part of the Project, the existing 35 non-native and non-protected trees at the Project Site would be removed and replaced with a total 117 trees, resulting in a net increase of 82 trees. Of the 115 trees that would be planted, 15 would be street trees.
Objective 5.1: It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.	**Consistent.** The Project would be required to comply with California Title 24 Building Standards Code and CALGreen Code. Energy saving and sustainable design would be incorporated throughout the Project. The Project would emphasize energy conservation, which would be achieved through the use of energy efficient HVAC and lighting systems. The Project would be prewired for EV charging and rooftop solar uses in accordance with the CALGreen Code. The Project would include also include solar panels on 15 percent of the mixed-used building's rooftop.
Policy 5.1.2: Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Consistent.** As noted previously, the Project would incorporate energy saving and sustainable design throughout the Project in accordance with the Title 24 Building Standards Code and CALGreen Code. The Project would install pre-wiring for EV charging spaces for 30 percent of the parking capacity at the Project Site. In addition, of the 30 percent of parking spaces prewired for electric charging, 10 percent would include installed chargers for immediate use by EVs. Additionally, solar panels would be installed on 15 percent of the mixed-used building's rooftop.
Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Consistent.** The Project would implement a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029. During operations, the Project would be served by a solid waste collection and recycling service under the City's "recycLA" program, which offers recycling and organic waste recycling to businesses and large multi-family customers.
Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent.** As noted previously, the Project would incorporate energy saving and sustainable design throughout the Project in accordance with the Title 24 Building Standards Code and CALGreen Code. The Project would install pre-wiring for EV charging spaces for 30 percent of the parking capacity at the Project Site. In addition, of the 30 percent of parking spaces prewired for electric charging, 10 percent would include installed chargers for immediate use by EVs. Additionally, solar panels would be installed on 15 percent of the mixed-used building's rooftop.

Source: ICF, 2019.

Conclusion

The Project would not conflict with or obstruct implementation of the AQMP or the goals and objectives of the 2016 RTP/SCS. Additionally, the construction and operation of the Project would not conflict with or be inconsistent with applicable air quality policies of the General Plan. Therefore, the Project would not conflict with or obstruct implementation of the applicable air quality plan.

Implementation of the Project would result in a less-than-significant impact. No mitigation measures would be required.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. A significant impact may occur if a project were to make a cumulatively considerable contribution of a federal or State criteria pollutant for which the Basin is currently in non-attainment. The Basin is currently in non-attainment for ozone (federal and State standards), respirable particulate matter (PM_{10}) (State standards only) and fine particulate matter ($PM_{2.5}$) (federal and state standards). Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Conversely, if a project's emissions do not exceed the recommended daily thresholds for project-specific impacts, its impacts would not be cumulatively considerable and would not contribute to nonattainment of applicable air quality standards in the Basin.

Criteria Pollutants

For the protection of public health and welfare, the Federal Clean Air Act (FCAA) requires that the U.S. Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants. Similarly, the California Clean Air Act (CCAA) requires CARB to set standards and designate areas as either attainment or nonattainment based on whether the California Ambient Air Quality Standards (CAAQS) have been achieved. As all criteria pollutants can have human health effects at certain concentrations, the NAAQS and CAAQS define the maximum amount of an air pollutant that can be present in ambient air without harming public health. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas, standards established for the prevention of environmental and property damage are called secondary standards.

Air quality standards have been established for the following six criteria pollutants: ozone (O_3), lead, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and particulate matter (PM), which consists of PM less than or equal to 10 microns in diameter (PM_{10}) and PM less than or equal to 2.5 microns in diameter ($PM_{2.5}$). Criteria air pollutants are also categorized as primary and secondary pollutants. In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere. Of the six criteria pollutants, CO, SO_2, PM_{10}, and $PM_{2.5}$ are primary pollutants, while O_3 and NO_2 are secondary pollutants. The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern.

Ozone (O_3)

O_3, which is the main ingredient in urban smog, is not emitted directly into the air, but is created by chemical reactions between hydrocarbons (HC) and nitrogen oxides (NO_X) (both by-products

of the internal combustion engine) in the presence of sunlight. Reactive organic gasses (ROG) are defined by CARB and include all HC except those exempted by CARB that contribute to smog formation, while volatile organic compounds (VOCs) are defined by the U.S. EPA and include all hydrocarbons except those exempted by the U.S. EPA. Generally speaking, ROGs and VOCs are similar but not identical, and their terms are used interchangeably. For purposes of this analysis, the term ROG is used. There are no separate ambient air quality standards for ROGs.

ROG are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols.

The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in O_3 formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

O_3 poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to O_3 at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term O_3 exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O_3 may increase the risk of respiratory-related deaths. The concentration of O_3 at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O_3 concentration reaches 80 parts per billion.

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Nitrogen Dioxide (NO_2)

NO_2 is a reddish-brown gas with a bleach-like odor. As discussed previously, both NO and NO_2 are the two major forms of NOx. NO_2 is formed when NO reacts rapidly with the oxygen in air. NO_2 is responsible for the brownish tinge of polluted air. In the presence of sunlight, atmospheric NO_2 reacts and splits to form a NO molecule and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons.

Population-based studies suggest that an increase in acute respiratory illness—including infections and respiratory symptoms in children (not infants)—is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient NO_2 levels found in Southern California homes that generally have fewer or no stoves. In healthy people, increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms and emergency room asthma visits.

Carbon Monoxide (CO)

CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere and is produced by both natural processes and human activities. In remote areas far from human habitation, CO occurs in the atmosphere at an average background concentration of 0.04 parts per million (ppm), primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include those with diseases involving heart and blood vessels, fetuses (unborn babies), and people with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain.

Particulate Matter (PM)

PM consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized—respirable course particles with an aerodynamic diameter of 10 micrometers or less, or PM_{10}, and respirable fine particles with an aerodynamic diameter of 2.5 micrometers or less, or $PM_{2.5}$. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. PM is considered both a local and a regional pollutant.

Particulate pollution can be transported over long distances and may adversely affect the human, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Depending on

its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain.

Sulfur Dioxide (SO_2)

SO_2 is a colorless, irritating gas with a "rotten egg" smell primarily formed from the combustion of fossil fuels containing sulfur. SO_2 is considered a local pollutant because it tends to accumulate in the air locally. High concentrations of SO_2 can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO_2 levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of SO_2, in conjunction with high levels of PM, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. SO_2 also is a major precursor to $PM_{2.5}$, which is a significant health concern and a main contributor to poor visibility (see also the discussion of health effects of particulate matter).

Lead (Pb)

Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric Pb over the past three decades. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death. There is no evidence to suggest that there are direct effects of Pb on the respiratory system.

Short-term Project Construction Emissions

Construction associated with the Project would generate criteria pollutant emissions from the following activities: (1) demolition; (2) site preparation; (3) grading and excavation; (4) construction workers traveling to and from Project Site; (5) delivering construction supplies to, and hauling debris from, the Project Site; (6) fuel combustion by on-site construction equipment; and (7) building construction, the application of architectural coatings, and paving activities. These construction activities have the potential to temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. To provide the most conservative analysis, maximum daily emissions estimates, which are used to assess Project impacts, are based on the day with the greatest intensity of construction activities.

For purposes of this air quality analysis, construction of the Project is anticipated to commence in October 2019 and continue over an approximately 39-month period before ending in June 2023. Construction activities are expected to occur six days per week, from Monday through Saturday, and last eight hours per day. Table 6-2 presents the construction phases and estimated durations

assumed for purposes of this analysis. Actual construction timing may vary depending on market conditions at the time of construction.

TABLE 6-2
ANTICIPATED PROJECT CONSTRUCTION SCHEDULE

Phases	Start (month/date/year)	Finish (month/date/year)	Duration (work days)
Demolition	10/1/2019	11/15/2019	40
Site Preparation	5/1/2020	6/2/2020	28
Grading/Excavation	6/3/2020	7/18/2020	40
Building Construction	7/19/2020	5/18/2023	886
Asphalt Paving	5/19/2023	6/1/2023	12
Architectural Coatings	5/19/2023	6/8/2023	18

Construction would require demolition of the existing one-story office and commercial structures at the Project Site followed by removal of the demolition debris. The removal of this debris is estimated to require approximately seven haul truck trips per day during the demolition phase. Additionally, during the site preparation phase it is estimated that up to 33 haul truck trips per day would occur to remove materials from the Project Site. During the grading phase, an estimated 89,000 cubic yards of material would require export from the Project Site, requiring approximately 139 haul truck round trips per day. Aside from haul truck trips, daily vendor/delivery truck trips would also occur during each of the construction phases for the Project. All of the aforementioned truck trips for Project construction activities would be round trips.

As part of the Project, the following PDF would be implemented during construction:

> **PDF-AQ-1:** The following measures will be employed by the Project to minimize construction-related emissions:
>
> - All off-road diesel-powered equipment shall be required to meet Tier 4 final off-road emissions standards during all phases of Project construction. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent.
> - Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Exceptions to these requirements are identified in 13 California Code of Regulations (CCR) Section 2485(d).
> - Provide notification to trucks and vehicles in loading or unloading queues that their engines shall be turned off when not in use for more than 5 minutes.
> - Electric equipment shall be used to the extent feasible in lieu of diesel or gasoline-powered equipment.

- All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.
- On-site construction activities shall utilize existing electric power sources to the extent feasible to minimize the use of higher polluting gas or diesel generators.
- Construction activities shall limit the hours of operation of heavy-duty equipment and/or the quantity of equipment in use to the extent feasible.
- During the application of architectural coatings for the new residential, restaurant, and commercial spaces, the Project shall use paints with a VOC content of 10 grams per liter (g/L) or less, which exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113.
- Sufficient dampening of the construction area shall be conducted as necessary to control dust caused by grading, hauling, and wind.
- Construction personnel shall secure loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Construction personnel shall clean all trucks and loads at the export site to prevent the blowing of dirt and spilling of loose earth.
- A sign shall be posted at the Project Site at a readily visible location that identifies the construction manager and a telephone number for any inquiries or complaints from residents regarding construction activities.

The modeled peak daily emissions of criteria air pollutants and ozone precursors associated with construction of the Project without and with PDF-AQ-1 are presented in Tables 6-3 and 6-4 respectively.[6]

TABLE 6-3
REGIONAL CRITERIA POLLUTANT CONSTRUCTION EMISSIONS WITHOUT PDF-AQ-1

	Total Regional Pollutant Emissions (pounds per day)					
Construction Phase	**ROG[b]**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2019						
Demolition						
On-Site Emissions	3.3	34	18.9	< 0.1	2.4	1.7
Off-Site Emissions	0.2	2.6	1.1	< 0.1	0.3	< 0.1
Total Phase Emissions	3.5	36.6	20.0	< 0.1	2.7	1.8
2020						
Site Preparation						
On-Site Emissions	2.1	23.1	11.8	< 0.1	2.6	1.6

[6] The modeled construction emissions for the Project without PDF-AQ-1 are presented for information purposes only.

	Total Regional Pollutant Emissions (pounds per day)					
Construction Phase	**ROG[b]**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Off-Site Emissions	0.4	11.5	3.2	< 0.1	0.8	0.3
Total Phase Emissions	2.5	34.6	15.0	0.1	3.4	1.8
Grading						
On-Site Emissions	2.8	30.0	16.5	< 0.1	4.1	2.5
Off-Site Emissions	2.8	86.9	21.1	0.2	5.7	1.8
Total Phase Emissions	5.6	116.9	37.6	0.3	9.7	4.3
Building Construction						
On-Site Emissions	1.3	12.3	9.4	< 0.1	0.6	0.6
Off-Site Emissions	0.6	4.1	4.6	< 0.1	2.0	0.5
Total Phase Emissions	1.9	16.4	14.0	< 0.1	2.7	1.1
2021						
Building Construction						
On-Site Emissions	1.2	11.1	9.2	< 0.1	0.6	0.5
Off-Site Emissions	0.5	3.8	4.3	< 0.1	1.5	0.4
Total Phase Emissions	1.7	15.0	13.4	< 0.1	2.0	0.9
2022						
Building Construction						
On-Site Emissions	1.1	9.9	9.0	< 0.1	0.5	0.5
Off-Site Emissions	0.5	3.6	4.0	< 0.1	1.5	0.4
Total Phase Emissions	1.6	13.5	13.0	< 0.1	2.0	0.9
2023						
Building Construction						
On-Site Emissions	1.0	9.2	8.9	< 0.1	0.4	0.4
Off-Site Emissions	0.4	2.4	3.7	< 0.1	2.2	0.6
Total Phase Emissions	1.4	11.6	12.6	< 0.1	2.6	1.0
Paving and Architectural Coatings						
On-Site Emissions - Paving	0.6	6.1	8.6	< 0.1	0.3	0.3
Off-Site Emissions - Paving	0.1	0.4	0.5	0.0	0.2	< 0.1
On-Site Emissions – Architectural Coatings	159.4	1.7	2.4	0.0	0.1	0.1
Off-Site Emissions – Architectural Coatings	< 0.1	0.3	0.3	0.0	0.1	< 0.1
Total Phase Emissions[c]	160.2	8.5	11.7	< 0.1	0.6	0.4
Maximum Daily Regional Emissions During Project Construction	160.2	116.9	37.6	0.3	9.7	4.3

Source: 7940 Lankershim Mixed-Use Project Air Quality and Greenhouse Gas Technical Report provided in Appendix A.
Note: Totals may not add exactly due to rounding.

[a] The Project's regional construction emissions without PDF-AQ-1 are presented for information purposes only and thus are not compared to SCAQMD's regional pollutant thresholds.
[b] VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.
[c] As the paving and architectural coatings phases would overlap during Project construction, the daily emissions from both of these phases are combined and presented.
ROG = reactive organic gases
NO_X = nitrogen oxides
CO = carbon monoxide
SO_X = sulfur oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

TABLE 6-4
REGIONAL CRITERIA POLLUTANT CONSTRUCTION EMISSIONS WITH PDF-AQ-1

	Total Regional Pollutant Emissions (pounds per day)					
Construction Phase	ROG [a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2019						
Demolition						
On-Site Emissions	0.4	1.8	19.9	< 0.1	0.8	0.2
Off-Site Emissions	0.2	2.6	1.1	< 0.1	0.3	0.1
Total Phase Emissions	0.6	4.4	21.0	< 0.1	1.1	0.3
2020						
Site Preparation						
On-Site Emissions	0.4	1.5	13.6	< 0.1	1.6	0.7
Off-Site Emissions	0.4	11.5	3.2	< 0.1	0.8	0.3
Total Phase Emissions	0.8	13.0	16.8	0.1	2.5	1.0
Grading						
On-Site Emissions	0.5	2.0	19.0	< 0.1	2.8	1.4
Off-Site Emissions	2.8	86.9	21.1	0.2	5.7	1.8
Total Phase Emissions	3.2	88.9	40.1	0.3	8.5	3.2
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.6	4.1	4.6	< 0.1	2.0	0.5
Total Phase Emissions	0.8	5.6	14.6	< 0.1	2.1	0.6
2021						
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.5	3.8	4.3	< 0.1	1.5	0.4
Total Phase Emissions	0.7	5.3	14.2	< 0.1	1.5	0.4
2022						
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1

Construction Phase	Total Regional Pollutant Emissions (pounds per day)					
	ROG [a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Off-Site Emissions	0.5	3.6	4.0	< 0.1	1.5	0.4
Total Phase Emissions	0.7	5.1	14.0	< 0.1	1.5	0.4
2023						
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.4	2.4	3.7	< 0.1	2.2	0.6
Total Phase Emissions	0.6	3.9	13.6	< 0.1	2.3	0.6
Paving and Architectural Coatings						
On-Site Emissions - Paving	0.2	1.0	9.9	< 0.1	< 0.1	< 0.1
Off-Site Emissions - Paving	0.1	0.4	0.5	0.0	0.2	< 0.1
On-Site Emissions – Architectural Coatings	34.6	0.2	2.4	0.0	< 0.1	< 0.1
Off-Site Emissions – Architectural Coatings	< 0.1	0.3	0.3	0.0	0.1	< 0.1
Total Phase Emissions[b]	34.8	1.8	13.0	< 0.1	0.3	0.1
Maximum Daily Regional Emissions During Project Construction	34.8	88.9	40.1	0.3	8.5	3.2
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: 7940 Lankershim Mixed-Use Project Air Quality and Greenhouse Gas Technical Report provided in Appendix A.
Note: Totals may not add exactly due to rounding.
[a] VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.
[b] As the paving and architectural coatings phases would overlap during Project construction, the daily emissions from both of these phases are combined and presented.

As shown in Table 6-4, the maximum level of daily construction emissions generated by the Project with implementation of PDF-AQ-1 would not exceed SCAQMD's daily significance thresholds for any criteria pollutants during any of the construction phases. Thus, the Project construction would not result in a cumulatively considerable net increase of non-attainment pollutants of ozone precursors (i.e., ROG and NOx), PM_{10}, and $PM_{2.5}$ in the Basin.

Long-term Project Operational Emissions

Implementation of the Project would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with energy sources (natural gas consumption) area sources (landscaping activities, re-applications of architectural coatings, and use of consumer products), and mobile sources. According to the *Transportation Impact Study for the 7940 Lankershim Boulevards Mixed-Use Project, October 2019* (Transportation Study), prepared by Gibson Transportation Consulting, Inc. for the Project, development of the Project would result in a total net increase of 3,473 daily vehicle trips over existing baseline conditions. This vehicle trip estimate takes into account trip reductions from Project land use characteristics, including internal capture from co-locating residential and commercial land uses on the Project Site, and location of the Project Site in an urbanized area that is also in proximity of transit options.

Table 6-5 presents the daily operational emissions generated by the Project. As noted previously, for the purpose of conducting a conservative analysis the operational emissions presented for the Project does not take any credit for the operational emissions generated by the existing uses at the Project Site that would be displaced by the Project. Thus, the actual operational emissions that would result from Project implementation would be lower than the estimated emissions presented in Table 6-5. As shown, the Project would result in long-term regional emissions of criteria air pollutants and ozone precursors that would be below SCAQMD's applicable thresholds. Thus, the Project operations would not result in a cumulatively considerable net increase of non-attainment pollutants of ozone precursors (i.e., ROG and NOx), PM_{10}, and $PM_{2.5}$ in the Basin.

TABLE 6-5
PROPOSED PROJECT CRITERIA POLLUTANT OPERATIONAL EMISSIONS

	Pollutant Emissions (pounds per day)					
Source	ROG [a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project						
Area Sources	10.9	0.5	35.7	< 0.1	0.2	0.2
Energy Sources	0.2	1.7	0.9	< 0.1	0.1	0.1
Mobile Sources	5.2	21.3	63.4	0.2	19.5	5.3
Total Operational Emissions	16.3	23.5	100.1	0.2	19.9	5.7
Regional Significance Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: 7940 Lankershim Mixed-Use Project Air Quality and Greenhouse Gas Technical Report provided in Appendix A.
Note: Totals may not add exactly due to rounding.
[a] VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

Health-Based Impacts from Project's Regional Criteria Pollutant Emissions

Based on the California Supreme Court's decision in *Sierra Club v. County of Fresno*, 6 Cal. 5th 502 (2018) (hereafter referred to as the Friant Ranch Decision), the court determined that under conditions when significant and unavoidable exceedances of criteria pollutant thresholds occur, environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis. As discussed above, the Project's construction and operational emissions would not exceed SCAQMD's regional criteria pollutant thresholds. Accordingly, the Project's air quality impacts would be less than significant, and no analysis of human health impacts is required, per the Friant Ranch Decision. Nevertheless, because the Project would result in increased emissions of criteria pollutants compared with the baseline condition, the following discussion is presented for informational purposes.

As discussed above, all criteria pollutants that would be generated by the Project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, and SO_2 are localized pollutants. PM can be both a local and a regional

pollutant, depending on its composition. The primary criteria pollutants of concern generated by the Project are ozone precursors (ROG and NO_X), CO, SO_X, and PM because SCAQMD has developed numerical thresholds for these pollutants.

Adverse health effects induced by regional criteria pollutant emissions generated by the Project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO_X) contribute to the formation of ground-borne ozone on a regional scale. Emissions of ROG and NOx generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutant may be transported over long-distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. While there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutant emissions to the locations where specific health effects could occur or determining the resultant number of additional days of nonattainment cannot be estimated with any degree of accuracy with currently available tools.

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, both of which provided amici curiae briefs for the Friant Ranch legal proceedings that the court lent significant credence to in its ruling but could not consider in the context of its review of the Friant Ranch Project EIR.[7] In its brief, SJVAPCD acknowledges that while health risk assessments for localized air toxics are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task." SJVAPCD further notes that emissions solely from the Friant Ranch Project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD presents similar information in their brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels".[8]

[7] The amici curiae briefs for Friant Ranch are available at: https://www.courts.ca.gov/41312.htm

[8] For example, SCAQMD's analysis of their 2012 Air Quality Attainment Plan showed that modeled NOx and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD's Rule 1315 showed that emissions of NOx and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absence.

Air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is generally a cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. Thus, because the Project's regional construction and operational emissions would not exceed SCAQMD's thresholds, and recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS (which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health), the Project's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Conclusion

The Project's construction and operational impacts would be less than significant, and mitigation measures are not required.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The term *sensitive receptors* refers to uses associated with people who are considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems on average than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Localized Pollutant Emissions

Construction

To assess the potential localized air quality impacts resulting from the Project on nearby sensitive receptors during construction, the daily on-site construction emissions generated at the Project Site were evaluated against SCAQMD's applicable construction LSTs for a 4.6-acre site. The nearest sensitive receptors to the Project Site include:

- The single-family residences located approximately 85 feet to the north, across West Strathern Street;

- The single-family residences located directly adjacent to the east of the Project Site boundary, to the north and south of Blythe Street; and

- The single-family residences located directly adjacent to the south of the Project Site boundary.

Because the mass rate look-up tables provided by SCAQMD provide only LSTs at receptor distances of 82, 164, 328, 656, and 1,640 feet, the LSTs for a receptor distance of 82 feet were used to evaluate the potential localized air quality impacts associated with the Project's peak-day construction emissions.[9] This distance most closely corresponds to the distance from the Project Site to nearby sensitive receptors in the SCAQMD LST lookup tables.

The Project would implement PDF-AQ-1 during construction to minimize construction-related emissions. The localized on-site emissions that are estimated to occur during peak construction days for each year of the Project's construction schedule without and with PDF-AQ-1 are presented in Tables 6-6 and 6-7, respectively.[10]

TABLE 6-6
LOCALIZED CRITERIA POLLUTANT CONSTRUCTION EMISSIONS WITHOUT PDF-AQ-1[A]

	Estimated Maximum Daily On-site Emissions (pounds per day)[b]			
Construction Year	NO_X	CO	PM_{10}	$PM_{2.5}$
2019	34.1	18.9	2.4	1.7
2020	34.4	17.5	4.3	2.6
2021	11.3	9.4	0.6	0.5
2022	10.1	11.0	0.5	0.5
2023	9.3	10.9	0.5	0.4

Source: 7940 Lankershim Mixed-Use Project Air Quality and Greenhouse Gas Technical Report provided in Appendix A.

[a] The Project's localized construction emissions without PDF-AQ-1 are presented for information purposes only and thus are not compared against SCAQMD's LSTs.

[b] To account for combustion emissions associated with vehicles traveling within the Project Site during construction, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions from worker vehicle and vendor and haul truck trips would occur within the Project Site.

TABLE 6-7
LOCALIZED CRITERIA POLLUTANT CONSTRUCTION EMISSIONS WITH PDF-AQ-1

	Estimated Maximum Daily On-site Emissions (pounds per day)[a]			
Construction Year	NO_X	CO	PM_{10}	$PM_{2.5}$
2019	2.0	19.9	0.8	0.2
2020	6.4	20.0	3.1	1.5
2021	1.7	10.2	0.1	0.1
2022	1.7	10.2	0.1	0.1
2023	1.6	12.3	0.1	0.1
Applicable LSTs[b]	164.3	1,347.6	13.1	7.4

[9] According to SCAQMD's LST methodology, it is recommended that projects with boundaries closer than 82 feet (25 meters) from the nearest receptor use the LSTs for receptors located at 82 feet.

[10] The modeled localized construction emissions for the Project without PDF-AQ-1 are presented for information purposes only.

Threshold Exceeded?	No	No	No	No

Source: 7940 Lankershim Mixed-Use Project Air Quality and Greenhouse Gas Technical Report provided in Appendix A.

[a] To account for combustion emissions associated with vehicles traveling within the Project Site during construction, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions from worker vehicle and vendor and haul truck trips would occur within the Project Site.

[b] Construction LSTs for a 4.6-acre site in source receptor area (SRA) 7 (East San Fernando Valley) at a 82-feet (25-meter) distance for sensitive receptors.

As shown in Table 6-7, with incorporation of PDF-AQ-1 the daily emissions generated on-site by construction of the Project would not exceed any of the applicable SCAQMD LSTs for a 4.6-acre site over the course of the entire construction schedule.

Operations

Similar to the analysis of construction emissions, the daily amount of localized pollutant emissions generated on-site by the Project during operations was also assessed for its potential localized air quality impacts on nearby sensitive receptors. The operational emissions that would result from the Project were assessed against SCAQMD's applicable operational LSTs for a 4.6-acre site, as explained above. Table 6-8 presents the on-site operational emissions that would result from the Project. As shown, the Project's operations-related emissions generated on-site would not exceed SCAQMD's applicable operational LSTs.

For the purpose of conducting a conservative analysis, the on-site operational emissions presented for the Project does not take any credit for the on-site operational emissions generated by the existing uses at the Project Site that would be displaced by the Project. Thus, the actual operational emissions that would result from Project implementation would be lower than the estimated emissions presented in Table 6-8

TABLE 6-8
LOCALIZED CRITERIA POLLUTANT OPERATIONAL EMISSIONS

	Estimated Maximum Daily On-site Emissions (pounds per day)[a]			
Emissions Source	NO_X	CO	PM_{10}	$PM_{2.5}$
Area	0.5	35.7	0.2	0.2
Energy	1.7	0.9	0.1	0.1
Mobile	1.1	3.2	1.0	0.3
Total Emissions	3.3	39.8	1.3	0.6
Applicable LSTs[b]	164.3	1,347.6	3.7	1.8
Threshold Exceeded?	No	No	No	No

Source: 7940 Lankershim Mixed-Use Project Air Quality and Greenhouse Gas Technical Report provided in Appendix A.

Note: Totals may not add exactly due to rounding.

[a] Localized operational emissions estimates assume all of the Area Sources and Energy Sources of emissions occur on-site and 5 percent of emissions from Mobile Sources occur on-site.

[b] Operational LSTs for a 4.6-acre site in SRA 7 (East San Fernando Valley) at a 82-feet (25-meter) distance for sensitive receptors.

In summary, the estimated localized construction and operational emissions associated with the Project would not exceed any of SCAQMD's applicable LSTs for criteria pollutants.

Health-Based Impacts from Project's Local Criteria Pollutant Emissions

As opposed to regional pollutants, localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts to adjacent sensitive receptors. Models and thresholds are readily available to quantify these potential health effects and evaluate their significance. The LSTs developed by SCAQMD represent the maximum emissions from a project that would not be expected to cause or contribute to a violation of any short-term NAAQS or CAAQS, and have been developed by the SCAQMD for each of the source receptor areas (SRAs) in the Basin. The NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, U.S. EPA and CARB health protective standards. Because the Project's localized construction and operational emissions would not exceed the LSTs, the Project would not cause or contribute to a violation of any health-protective CAAQS and NAAQS.

Toxic Air Contaminants (TAC)

TACs are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. Air toxics are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Air toxics are emitted by a variety of industrial processes that include petroleum refining, electric utility and chrome plating operations, commercial operations, such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). To date, CARB has identified 21 TACs and adopted U.S. EPA's list of hazardous air pollutants as TACs. In August 1998 CARB identified diesel particulate matter (DPM) emissions as a TAC, and in September 2000 CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, and some neurological effects, such as lightheadedness. Acute exposure may also elicit a cough or nausea, as well as exacerbate asthma. Chronic exposure to DPM in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that DPM is a likely carcinogen. Human epidemiological studies have demonstrated an association between DPM exposure and increased lung cancer rates in occupational settings.

Construction

Construction of the Project would result in sensitive receptor exposure to temporary TAC emissions associated with DPM emissions from heavy construction equipment. As discussed previously, the nearest sensitive receptors are the single-family residences located to the north, across Strathern Street, directly adjacent to the east, and directly adjacent to the south of the Project Site.

The use of diesel trucks and construction equipment during the Project construction period would result in emissions of TACs, particularly DPM. However, while construction activities are expected to occur over 39-month period, the activities generating the most DPM emissions, which would be during the site preparation and grading phases that require the use of heavy-duty diesel equipment for earthmoving, would only occur over an 11-week period. The majority of the Project's construction period would consist of the building phase, which would use smaller-scale equipment with lower horsepower that generates lower levels of DPM emissions. The highest daily PM_{10} emissions generated during the Project's building phase would be nearly four times lower than those generated during the Project's grading phase. Overall, the exposure of receptors to the Project's DPM emissions would be short-term in nature and much shorter than the assumed 70-year exposure period used to estimate lifetime cancer risks. Once construction activities have ceased, so too will the source emissions. Given the limited duration by which receptors would be exposed to DPM emissions, the risk of adverse health effects during the Project's construction period would be minor. Additionally, as discussed above under Item 6.3a, the Project would not conflict with applicable AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. The Project would be required pursuant to state law to use contractors that are in compliance with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and Measure MOB-08 from the 2016 AQMP that requires the accelerated replacement of older on-road heavy-duty vehicles that produce higher pollutant emissions with newer engines that produce lower pollutant emissions. Compliance with these measures would minimize emissions of TACs during construction. Additionally, SCAQMD's air quality handbook and website resources do not currently require the preparation of a quantitative health risk assessment (HRA) for construction-period TACs. Because of the limited exposure time for receptors during construction and the Project's incorporation of emissions controls through implementation of PDF-AQ-1, and because SCAQMD does not require construction HRAs to be prepared, no quantitative HRA is included in this analysis. Overall, emissions from construction equipment associated with the Project would result in less than significant health risk impacts.

Operations

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes, automotive repair facilities, and dry-cleaning facilities. As the Project consists of residential, retail, and restaurant uses, the Project would not include sources of substantive TAC emissions identified by the SCAQMD or CARB. Project operation would generate minimal amounts of TACs from the use of consumer products, periodic use of fuel-powered landscaping equipment, and from other activities associated with residential and commercial uses such as cleaning and reapplication of architectural coatings. However, these emissions are expected to be occasional and result in minimal exposure to off-site sensitive receptors. The Project's restaurant operations would be subject to SCAQMD Rule 1138-Control of Emissions from Restaurant Operations. The Project would comply with this rule by installing a control device, such as a catalytic oxidizer, on all char broilers in order to reduce PM and VOC emissions. Thus, operation of the Project would result in less than significant health risk impacts.

Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. CO hot spots at roadway intersections are typically found in areas with significant traffic congestion. CO is a public health concern because at high enough concentrations, it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. However, it should be noted that ambient concentrations of CO have declined dramatically in California because of existing controls and programs.

Most areas of the state, including the region in which the Project is located in, meet the state and federal CO standards. As part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a revision to the Federal Attainment Plan for Carbon Monoxide (CO Plan) that was originally approved in 1992 was provided that included a CO hot spots analysis at four specified heavily traveled intersections in Los Angeles at the peak morning and afternoon time periods. These four intersection locations selected for CO modeling are considered to be worst-case intersections that would likely experience the highest CO concentrations. The CO hot spots analysis in the 2003 AQMP did not predict a violation of CO standards at the four intersections.

Of these four intersections, the busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which was described as the most heavily congested intersection in Los Angeles County with an average daily traffic volume of approximately 100,000 vehicles per day. Based on the CO modeling, the 2003 AQMP estimated that the 1-hour and 8-hour concentrations at this intersection was 4.6 ppm and 3.5 ppm, respectively, which would not exceed the most stringent 1-hour CO standard of 20.0 ppm and 8-hour CO standards of 9 ppm. In reviewing the Project's Transportation Study, it was determined that at buildout (2023) the highest daily traffic volumes generated at an intersection within the vicinity of the Project would be a cumulative total of 91,460 vehicles per day at the intersection of Lankershim Boulevard and Roscoe Boulevard/Tuxford Street. Because the daily amount of vehicles at this study intersection would not exceed 100,000 vehicles per day, it can be concluded that the Project would not exceed the most stringent 1-hour and 8-hour CO standards and no detailed CO hot spots analysis for the Project would be required.

Conclusion

The Project's localized construction and operational emissions would not exceed the applicable LSTs and impacts related to local air quality and human health would be less than significant. Additionally, the Project would not result in impacts related to CO hot spots and would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded. Therefore, the Project would not expose sensitive receptors to substantial pollutant concentrations. Mitigation measures are not required.

d. Result in other emissions such as those leading to odors adversely affecting a substantial number of people?

Less Than Significant Impact. According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment facilities, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The Project, which is a mixed-use development that consists of

multi-family residential and commercial uses, includes none of these land uses. Thus, operation of the Project is not expected to result in objectionable odors for the neighboring uses and would not adversely affect a substantial number of people.

During construction of the Project, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. As part of PDF-AQ-1, the Project would use low-VOC architectural coatings that exceed the requirements of SCAQMD Rule 1113, which would limit the odors associated with offgassing from those coatings. Odors associated with asphalt paving would only occur for a limited time period for the Project (12 work days), and the locations of paving activities would be distributed at the Project Site. Additionally, material deliveries and heavy-duty haul truck trips could create an occasional "whiff" of diesel exhaust for nearby receptors. These odors would not affect a substantial number of people because construction would be temporary, and construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with Project construction would be temporary and intermittent in nature and would not create a significant level of objectionable odors affecting a substantial number of people.

Conclusion

The Project's other emissions such as those leading to odors would result in a less than significant impact, and mitigation measures are not required.

Cumulative Impacts

Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time. The study area for analysis of cumulative effects on air quality is the Basin, which experiences chronic exceedances of state and federal ambient air quality standards as a consequence of past and present projects and is subject to continued nonattainment status by reasonably foreseeable future projects. These nonattainment conditions within the region are considered cumulatively significant. Therefore, SCAQMD thresholds have been established to ensure attainment of the NAAQS and CAAQS.

The City has identified related projects located in the Project Site area that have not yet been built or that are currently under construction. Since both the timing and the sequencing of the construction of the related projects are unknown, any quantitative analysis to ascertain daily construction emissions that assumes multiple, concurrent construction projects would be speculative. For this reason, the SCAQMD's recommended methodology for assessing a project's cumulative impacts differs from the cumulative impacts methodology employed elsewhere in this SCEA. The SCAQMD recommends using two different methodologies: (1) that project-specific air quality impacts be used to determine a project's potential cumulative impacts to regional air

quality;[11] or (2) that a project's consistency with the current AQMP be used to determine its potential cumulative impacts.

As discussed and demonstrated in the analysis under Item 6.3a, the Project would not conflict with, or obstruct implementation of, the AQMP. Additionally, as discussed under Items 6.3b and 6.3c above, the Project's construction and operational emissions would not exceed SCAQMD's applicable regional pollutant thresholds or LSTs. Based on SCAQMD's cumulative air quality impact methodology, if a project's emissions do not exceed the recommended daily thresholds for project-specific impacts, its impacts would not be cumulatively considerable and would not contribute to nonattainment of applicable air quality standards in the Basin. As such, the Project's cumulative impacts with respect to air quality would be less than significant and would not be cumulatively considerable.

Conclusion

The Project's construction and operational cumulative impacts would be less than significant and would not be cumulatively considerable, and mitigation measures are not required.

6.4 Biological Resources

The following discussion regarding Biological Resources is based, in part, on the technical report prepared for the Project, entitled *7940 Lankershim Mixed Use Project Tree Report,* prepared by L.A. Design Works, dated October 30, 2018 and contained in Appendix B.

Would the project:

a. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant, The Project Site is located within a highly urbanized area and is currently developed with a single-story office and a single-story commercial building and associated uses. Therefore, the only biological resources permanently located on the Project Site are trees, shrubs and other plants. As stated in the technical report entitled *7940 Lankershim Mixed Use Project Tree Report* prepared by L.A. Group Design Works, Inc., dated October 30, 2018 (contained in Appendix B) there are no protected trees within the Project Site. Trees that are designated as "protected trees," as defined by LAMC Section 17.02, include the following trees that have a diameter at breast height (dbh) of more than four inches or more in cumulative diameter: oak trees

[11] South Coast Air Quality Management District, Potential Control Strategies to Address Cumulative Impacts from Air Pollution White Paper, Appendix D, 1993, page D-3, http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4. Accessed May 2019.

(*Quercus* spp.), southern California black walnuts (*Juglans californica*), western sycamores (*Platanus racemosa*), and California bay laurels (*Umbellularia californica*).

There are 35 trees on the Project Site. These trees include:

- **Lankershim Boulevard Frontage:** Within the Project Site facing Lankershim Boulevard, there are seven Queen Palm trees that are non-protected.

- **Strathern Street Frontage:** Within the Project Site facing Strathern Street, there are 19 trees: seven Junipers, one Norfolk Island Pine, one Needle tree, one Fig tree, one Carrotwood tree, one Lemon tree, one Tree of Heaven, Chinaberry tree, three Pine trees, one Olive tree, and two Brazilian Peppers that are non-protected.

- **Project Site Interior:** Within the interior of the Project Site there are nine trees: one Ash Tree, one Brazilian Pepper, five Ficus trees, one Olive tree, and one Tree of Heaven that are non-protected.

The Project would remove the 35 existing trees on the Project Site. The Project would provide 117 trees in total, for a net increase of 82 trees.

The Project Site does not contain any critical habitat or support any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. The removal of vegetation and disturbances to potential bird habitat creates the potential to result in a take[12] of nesting native bird species. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Wildlife Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). The Department of City Planning enforces the MBTA through precautionary and preventative measures to avoid or reduce the potential for disturbances to wildlife during construction.

The Applicant will be required to ensure compliance with all applicable laws and regulations to ensure that no significant impacts to nesting birds would occur due to the removal of the existing trees located on the Project Site. As a standard practice, the Department of Building and Safety generally imposes a condition that requires grading and earthwork activities (including disturbances to native and non-native vegetation, structures and substrates) to take place outside of the breeding bird season which generally runs from March 1 – August 31 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If the Project's activities cannot feasibly avoid the breeding bird season, beginning thirty days prior to the disturbance of suitable nesting habitat, the Applicant would be required to arrange for weekly bird surveys to detect any protected native birds in the

[12] Take means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture of kill (Fish and Wildlife Code Section 86).

habitat to be removed and any other such habitat within properties adjacent to the Project Site, as access to adjacent areas allows.

If a protected native bird is found, the Applicant would be required to delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Therefore, with adherence to existing laws and regulations, the Project would have a less than significant impact on sensitive biological species or habitat.

Conclusion

Due to the existing conditions on the Project Site and the Project Site's location in an urban area, there are it is unlikely that any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service is located on the Project Site. The Applicant will be required to ensure compliance with all applicable laws and regulations to ensure that no significant impacts to nesting birds would occur due to the removal of the existing trees located on the Project Site. Impacts would be less than significant and no mitigation measures are required.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, regulations by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The Project Site is located in an urbanized area of the City. The Project Site is developed with commercial buildings and a surface parking lot and does not contain riparian habitat or sensitive natural community. The Project Site is not located within or adjacent to a significant ecological area (SEA).[13]

Conclusion

As the Project is located in an urbanized area and development of the Project would not result in any adverse effect on riparian habitat or other sensitive natural community, no impact would occur and no mitigation measures are required.

[13] City of Los Angeles General Plan Conservation Element, Exhibit B2, SEAs and other Resources, March 2001. http://planning.lacity.org/cwd/gnlpln/consvelt.pdf. Accessed September 20189.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. The Project Site is located in an urbanized area of the City. The Project Site is developed and the pervious areas are landscaped with non-native species and do not contain state or Federally protected wetlands.

Conclusion

As the Project would not impact Federally protected wetlands, no impacts would occur. No mitigation measures are required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant. The Project Site is currently developed and located in a highly urbanized area in the City of Los Angeles. No wildlife corridors or native wildlife nursery sites are present on the Project Site or in the surrounding area. Further, due to the urbanized nature of the Project Site area, the potential for native resident or migratory wildlife species movement through the Site is negligible.

Nonetheless, the Project Site does include ornamental trees that could support raptor and/or songbird nests. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). California Fish and Wildlife Code Sections 3503, 3503.5, and 3513 prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). The removal of vegetation with nesting birds during the breeding season is considered a potentially significant impact. However, while the Project would remove 35 trees on the Project Site, the effects of this removal would be temporary, as the Project would provide 117 trees on the Project Site, resulting in a net increase of 82 trees, such that the Project would provide greater habitat area for birds.

The Applicant will be required to ensure compliance with all applicable laws and regulations to ensure that no significant impacts to nesting birds would occur due to the removal of the existing trees located on the Project Site. As a standard practice, the Department of Building and Safety generally imposes a condition that requires grading and earthwork activities (including disturbances to native and non-native vegetation, structures and substrates) to take place outside of the breeding bird season which generally runs from March 1 – August 31 (as early as February 1 for raptors) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If the Project's activities cannot feasibly avoid the breeding bird season, beginning thirty days prior to the disturbance of suitable nesting habitat, the Applicant would be required to arrange for weekly bird surveys to detect any protected native birds in the habitat to be removed and any other such habitat within properties adjacent to the Project Site, as

access to adjacent areas allows. If a protected native bird is found, the Applicant would be required to delay all clearance/construction disturbance activities within 300 feet of suitable nesting habitat for the observed protected bird species until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting. Therefore, with adherence to existing laws and regulations, the Project would have a less than significant impact on sensitive biological species or habitat.

Conclusion

With compliance with federal and state regulations related to the protection of migratory fish and wildlife species, Project impacts would be less than significant.

e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

Less Than Significant Impact. There are no native tree species within the Project Site that would be subject to the protection of Ordinance No. 177404 of the LAMC (Section 1, Subdivision 12, of Subsection A of Section 12.21, as amended). However, there are 35 existing non-native, non-protected trees that would be removed as part of the Project. The Project would provide 117 trees in total, for a net increase of 82 trees.

For trees removed from the Project Site, the Project Applicant would be required to comply with the City's appliable regulations that would require that prior to the issuance of any permit, a plot plan shall be prepared indicating the location, size, type, and general condition of all existing trees on the site and within the adjacent public right(s)-of-way. Prior to the removal or planting of any street tree or street in the public right-of-way, the Project would require approval and replacement of trees per the requirements of the City of Los Angeles Board of Public Works.

Conclusion

Compliance with the implementation of applicable City requirements would ensure that impacts related to local policies and ordinances protecting biological resources would be less than significant.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

No Impact. The Project Site is located in an urbanized area of the City. The Project Site is not located within a Significant Ecological Area (SEA).[14] Additionally, there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or

[14] Los Angeles County Significant Ecological Areas and Coastal Resource Areas Policy Map, http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf, Accessed September 2019.

State habitat conservation plan in place that includes the Project Site.[15,16,17] Therefore, implementation of the Project would not conflict with a habitat conservation plan and no mitigation measures are necessary.

Cumulative Impacts: Biological Resources

Similar to the Project, the majority of the related projects occurring in the Project Site area would occur on previously disturbed, urbanized land. As discussed above, the Project Site does not contain sensitive biological resources or habitat, including wetlands, and is not part of a wildlife corridor and therefore could not contribute to a cumulative effect in these regards. The Project would fully comply with City ordinances pertaining to tree removal. Related projects would also be required to comply with the City's tree requirements and to adhere to the MBTA and Fish and Wildlife code provisions; therefore, cumulative impacts to nesting birds would be less than significant.

Conclusion

Compliance with applicable regulatory requirements and plans would ensure that cumulative impacts to biological resources would be less than significant.

6.5 Cultural Resources

The following discussion regarding Cultural Resources is based, in part, on the technical report prepared for the Project, entitled *7940 Lankershim Boulevard Historical Resources Technical Report,* prepared by ICF, in July 2019 and contained in Appendix C and *Cultural and Paleontological Resources Assessment Report* prepared by ICF in September 2019.

Would the project:

a. Cause a substantial adverse change in the significance of a historical resources pursuant to §15064.5?

No Impact. As discussed in the *7940 Lankershim Boulevard Historical Resources Technical Report,* ICF conducted general and property-specific archival research for the Project Site and nearby area. Materials examined included previous cultural resources studies and records found during a formal literature review and records search, as well as primary and secondary resources from local repositories, including maps and photographs.

A cultural resources records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, on March 14, 2019. The search included a review of all recorded archaeological sites and recorded built environment resources within a 0.5-mile

[15] California Regional Conservation Plan, August 2015, https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline, Accessed September 2019.

[16] Habitat Conservation Plans – Region 8, http://ecos.fws.gov/ecp0/conservationPlan/region/summary?region=8&type=HCP,Accessed September 2019.

[17] Habitat Conservation Plan Documents, https://www.fws.gov/carlsbad/hcps/HCP_Docs.html, Accessed September 2019.

radius of the Project site, as well as a review of cultural resource reports on file. In addition, the California State Points of Historical Interest, the California Historical Landmarks, the California Register of Historical Resources (CRHR), the National Register of Historic Places (NRHP), the City of Los Angeles City of Los Angeles Historic-Cultural Monument (HCM) listings, and the California State Historic Resources Inventory were reviewed.

ICF consulted previous historic resources surveys and evaluations of historical resources in the vicinity of the Project Site, including the Sun Valley-La Tuna Canyon Community Plan Area historical resources survey. SurveyLA developed extensive historic contexts in two reports that related to resources in the Project area: Los Angeles Citywide Historic Context Statement: Japanese Americans in Los Angeles 1869–1970 (August 2018) and Los Angeles Citywide Historic Context Statement: Commercial Development, 1859–1980, Neighborhood Commercial Development, 1880–1980 (August 2017).

In addition, the following sources informed ICF's analysis of potential historical resources within the study area:

- Los Angeles County Tax Assessor Records
- Original and alteration building permits from the Los Angeles Department of Building and Safety
- Los Angeles Times Historical Newspaper Index
- Los Angeles Public Library's California Index and Tessa collections
- Scholarly books and articles
- Internet resources

In addition, historical resources field investigations were conducted at the Project Site on March 8, 2019 and March 20, 2019.

A substantial adverse change in the significance of a historical resource is considered a potentially significant impact on the environment. Substantial adverse change is defined as physical demolition, relocation, or alteration of a resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. Direct impacts are those that cause substantial adverse physical change to a historic property. Indirect impacts are those that cause substantial adverse change to the immediate surroundings of a historic property such that the significance of a historical resource would be materially impaired.

Direct Impacts

Existing uses at the Project Site include an office (7916–7918 Lankershim Boulevard) building and a commercial building (7934 Lankershim Boulevard). These buildings would be demolished to construct the Project. These structures are described below:

Potential Impacts from Demolition

7916-7918 Lankershim Boulevard Building

Constructed in 1940, 7916–7918 Lankershim Boulevard is a one-story vernacular building with Mid-Century Modern elements, built of wood-frame construction. In 1940, H.R. Coburn applied for a building permit to construct a one-story 18-foot by 20-foot building for use as a carpenter shop and storage in association with a dwelling (no longer extant) to the east. Based on a review of permits at 7916 and 7918 Lankershim Boulevard, this appears to be the basis of the existing building at its southeast quadrant. In 1950, a 10-foot by 20-foot addition was added to the building's elevation facing Lankershim Boulevard. The resulting 20-foot by 28-foot garage was converted into a shop. In 1951, Joe Alhadoff applied for a building permit to construct an 18-foot by 40-foot addition to the north wall, completing the existing 40-foot by 40-foot building.

The 7916–7918 Lankershim Boulevard structure is an unornamented commercial building with a shed roof characteristic of the Mid-Century Modern architectural style. Research has not uncovered an architect associated with the building. As a vernacular example of the style lacking original cladding, this building appears to be a primarily utilitarian building that lacks a strong tie to the Mid-Century Modern style or any identifiable style.

Research on this property and on its former owners and occupants, did not suggest any potential local, regional, or national significance. Research also did not reveal associations to any other significant persons in history. It is not, therefore, exemplary of a particular architectural style, building type, time period, or construction method, nor is the building associated with a Master architect. The building was not identified by SurveyLA as historically significant and was not listed or is eligible for listing, in the National Register, the California Register, or as a City of Los Angeles Historic-Cultural Monument.

7934 Lankershim Boulevard Building

The 7934 Lankershim Boulevard structure is a large, one-story rectangular plan commercial building designed in the Mid-Century Modern style. Although the existing building was constructed in 1968, Allan and Carole Mori originally opened Mel-O-Dee Nursery at the property in 1949, housing their business on a mid-block property with a 30-foot by 40-foot lath house and an outdoor nursery in the rear (to the north and east) of the building. Historical aerial photographs appear to depict rows of nursery plants on the property for decades, until the nursery stock began to shrink in 2004 and was removed entirely from the 7934 Lankershim property by 2014. The property currently houses a building materials retail store, with the rear of the property serving as a yard for building materials storage.

The building features extensive glass display windows, a broad low-pitched gabled roof, and integrated planters at the exterior walls, elements well suited to the building's decades-long use as a nursery business. While this is a late and unexceptional example of the Mid-Century Modern style, it does not exhibit high artistic value, and lacks design choices in massing and ornamentation that would present a fully expressionist Mid-Century Modern building. It is not, therefore,

exemplary of a particular architectural style, building type, time period, or construction method, nor is the building associated with a Master architect.

While the existing 7934 Lankershim Boulevard building originally housed an individual, family-owned Japanese American nursery business in the San Fernando Valley, there is not any evidence that indicates that the property is strongly associated with events or broad patterns of history or associated with individuals historically significant in local, state or national history. The building was not identified by SurveyLA as historically significant and was not listed or is eligible for listing, in the National Register, the California Register, or as a City of Los Angeles Historic-Cultural Monument.

While the Project would demolish the two buildings, constructed in 1940 and 1968, the structures on the Project Site do not qualify as historical resources under CEQA. Therefore, the Project's associated demolition of these structures would have no direct impact to historical resources on the Project Site.

Indirect Impacts to Historic Resources

Within a one to five parcel radius of the Project Site, 35 potential historic resources were constructed prior to 1981. Potential impacts to resources in the indirect study area are limited to setting changes, specifically visual changes to the immediate vicinity of the project site. Therefore, the indirect study area was selected to account for changes to the setting of off-site historical resources, if any exist. Resources within approximately 400 feet of the Project Site are within sufficiently proximate visual range that their immediate setting could be impacted by the removal of the existing buildings and/or the construction of the new building. To identify the appropriate study area, the center of the proposed Project site was identified and a radius 400 feet was drawn around that center point. To ensure that entire properties could be analyzed as potential historical resources, entire parcels intersecting that radius were then identified and incorporated into the study area. None of these resources were identified as eligible by SurveyLA, nor were they documented. These resources were analyzed and evaluated but not documented. Based on previous SurveyLA findings supplemented by observation and research, none appear to qualify as a CEQA historical resource.

Two potential resources in the indirect study area were identified that were constructed after 1981 (7923 Lankershim Boulevard and 7945 Lankershim Boulevard). ICF evaluated these resources, but neither the field survey nor research revealed any information to suggest that they conform to the special circumstances related to age, nor did any information uncovered reveal associations with important events, broad patterns in history, or important persons. These resources, therefore, are not considered historical for the purposes of CEQA.

Conclusion

No impacts to historical resources would occur. No mitigation measures are required.

b. Cause a substantial adverse change in significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact. ICF conducted a literature review to determine if the Project would have the potential to adversely affect prehistoric and historical archaeological resources. Various U.S. Geologic Survey (USGS) historical maps were examined for indications of historical structures and development in and around the Project area, including the 7.5-minute Van Nuys quadrangle and the Los Angeles basin topographic map. In addition, online aerial photographs of the region from Nationwide Environmental Title Research (NETR) Online were inspected, some that went back as far as 1947.

An archaeological records search was conducted at the South Central Coastal Information Center (SCCIC), housed at California State University, Fullerton, on March 14, 2019. The search included reviews of all known relevant cultural resource survey reports to ascertain the presence of known prehistoric and historic archaeological resources within a 0.5-mile radius of the Project Site. In addition, at the request of the City, a second request was sent to the SCCIC on May 10, 2019. An official SCCIC response was received on May 16, 2019. The records search revealed no archaeological resources on either the Project Site or within the 0.5-mile radius of the Project Site. Five cultural resource studies have been previously conducted within the 0.5-mile radius of the Project Site. Five reports were listed in the SCCIC records, but only one report was available. Only one of these studies included the Project Site in its analysis.

The Project would not be expected to result in significant impacts on archaeological cultural resources related to a substantial adverse change in the significance of a prehistoric archaeological resource. There are no known previously recorded archaeological resources within the Project area. Therefore, the Project is not expected to cause a substantial adverse change in the significance of an archaeological resource. Based on historical disturbance and construction in the area, the sensitivity for intact buried archaeological deposits of historic age within the Project area is relatively low.

Per California Public Resources Code Section 21083.2(f), a lead agency may make provisions for archeological sites accidently discovered during construction. The Project Applicant would be required to comply with the City's standard condition of approval related to inadvertent discovery of unknown archaeological resources. In the event that any subsurface cultural resources are encountered at the Project Site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, pursuant to State Health and Safety Code Section 7050.5. At which time the applicant shall notify the City and consult with a qualified archaeologist who shall evaluate the find in accordance with federal, state, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, and shall determine the necessary findings as to the origin and disposition to assess the significance of the find. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted.

Conclusion

With compliance with regulatory requirements and the City's standard condition, the Project's potential impacts related to unknown archaeological resources would be less than significant.

c. Disturb any human remains, including those interred outside of formal cemeteries.

Less Than Significant Impact. The Project Site is developed with commercial buildings and a surface parking lot. Although the Project Site has been subject to grading and development in the past, the Project would require excavations at a depth of approximately 25 feet below ground surface. As a result, construction may disturb human remains, including those interred outside of dedicated cemeteries. Such an event is a potentially significant impact under CEQA.

If human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made the necessary findings as to origin and disposition, pursuant to PRC Section 5097.98. If the county coroner concludes that the remains are of Native American descent, the Native American Heritage Commission must be notified within 24 hours, and NAHC guidelines would be adhered to in the treatment and handling of the remains. With regulatory compliance, the Project's potential impacts would be less than significant.

Conclusion

Impacts would be less than significant and no mitigation is required.

Cumulative Impacts: Cultural Resources

Impacts of constructed developments such as the Project on cultural resources are generally site-specific and as such, are assessed on a site-by-site basis.

Cumulative impacts would occur if the Project and related projects were to have combined significant adverse effects on historical resources of the same type in the immediate vicinity, or if they were to contribute to changes within a historic district; however, there are no historical resources on the Project Site. Of the eight related projects, none is located within the immediate vicinity of the Project and all are isolated by intervening development and located in a number of locations of varying character and context. As discussed above, the Project would not result in direct or indirect impacts to historical resources, and, as such, the Project's effects would not be cumulatively considerable, and cumulative impacts would be less than significant.

Many of the related projects would require excavation that could potentially expose or damage potential archaeological resources or disturb human remains. However, the related projects are located in developed urban areas with sites that have been previously disturbed, and the potential to encounter and cause a significant impact on surface resources is unlikely. Moreover, such impacts are not cumulative in combination with the Project's potential impacts, but are rather discrete and entirely separate from the Project's potential impacts. Further, in association with CEQA review, and depending on the depth of excavation and sensitivity of respective sites,

mitigation measures and compliance with regulatory measures for the protection of human remains would be identified and implemented for those related projects that have the potential to cause significant impacts to undiscovered archaeological resources or to disturb human remains.

Conclusion

Cumulative impacts related to cultural resources would be less than significant.

6.6 Energy

Would the project:

a. Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. A significant impact would occur if the Project would result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. The Project would redevelop the Project Site by replacing an office and a commercial building currently on-site with a seven-story mixed-use development consisting of residential units and ground level commercial uses. The Project is required to comply with California's Energy Efficiency Standards established in Title 24, Part 6, of the California Code of Regulations. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated by the California Energy Commission (CEC) on an approximately three-year cycle to allow consideration and possible incorporation of new energy efficiency technologies and methods. Part 11 of the Title 24 Building Standards Code is referred to as the CALGreen Code. The purpose of the CALGreen Code is to improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality. The CALGreen Code establishes mandatory measures for new residential and non-residential buildings, which includes requirements for energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The Project would comply with the applicable provisions of Title 24 and the CALGreen Code and would install energy and water efficient appliances in the proposed residential dwelling units. The Project is expected to comply with the 2016 Standards which improved upon the 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings.[18] The 2016 Standards will be

[18] https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards. Accessed August 15, 2019.

in effect until the end of 2019 and will then be replaced with the 2019 Building Energy Efficiency Standards which will go into effect January 1, 2020.[19]

Construction

Energy use associated with phased construction of the Project would consist of diesel fuel consumption by on-road trucks (hauling and vendor trips) and off-road construction diesel equipment, and gasoline consumption by on-road worker vehicles (commute trips). Construction of the Project would require the export of asphalt, earth material, and building debris from the Project Site during the demolition and site clearing phases as well as the delivery of building materials during the building phase.

The total gasoline and diesel fuel anticipated to be used during construction is summarized below in Table 6-9, Summary of Energy Use During Project Construction, and in Appendix D, Energy Consumption Worksheets. As shown, construction of the Project would consume approximately 215,125 gallons of fuel, including approximately 42,597 gallons of gasoline and 172,528 gallons of diesel during construction.[20]

TABLE 6-9
SUMMARY OF ENERGY USE DURING PROJECT CONSTRUCTION

Energy Type	Total Quantity[a]
Gasoline	
Worker vehicle commute trips	42,597 gallons
Diesel	
Off-road equipment and on-road trucks	172,528 gallons
Total	**215,125**

Source: ICF 2019
NOTES:
Detailed calculations are provided in Appendix D of this SCEA. Based on Project Construction Schedule

Because the construction phase of the Project would be temporary and the fact that the extent of fuel consumption is typical of land use developments of this size and nature, fuel consumption impacts would not be considered excessive or substantial with respect to regional fuel supplies. The proposed mixed-use development is not expected to require an extraordinary amount of energy consumption during construction, as may occur with large, industrial facilities (e.g., new power plants or dams). Construction of the Project would occur over an approximately 39-month period; thus, construction-related energy use would be temporary and would represent a relatively short demand on local and regional fuel supplies that would be easily accommodated. During this construction phase, the Project would comply with regulatory compliance measures, such as restricting haul trucks to off-peak hours and not allowing engines to idle excessively when not in use (CARB Air Toxics Control Measure), and meeting specified fuel and fuel additive requirements

[19] https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency. Accessed August 15, 2019.

[20] See Energy Consumption Worksheets included as Appendix D

and emission standards (C.C.R. Title 13, Sec. 2485). Adherence to these measures would further serve to increase energy efficiency and reduce consumption of fossil fuels. The energy demands during construction would be typical of construction projects for projects of this size and would not necessitate additional energy facilities or distribution infrastructure or cause wasteful, inefficient or unnecessary consumption of energy. Accordingly, energy demands during construction would be less than significant.

Operations

Electricity

Once the Project is operational, there would be electrical usage from a variety of sources including electricity associated with the residential and commercial uses on-site, and off-site water treatment and distribution. Electricity transmission for the Project Site is provided by the Los Angeles Department of Water & Power (LADWP) which serves approximately 3.8 million people and is the nation's largest municipal electric utility.[21] In order to properly assesses and meet growing energy demands, the LADWP releases Integrated Resource Plans. The latest 2017 Final Power Strategic Long-Term Resource Plan, is a comprehensive 20 year roadmap to assist LADWP to meet the growing energy demand from consumers in an environmentally responsible and cost effective manner.[22] LADWP has a net dependable generation capacity greater than 7,531 megawatts (MW).[23] LADWP is fully resourced to meet peak demand but maintains transmission and wholesale marketing operations to keep production costs low and increase system reliability. The LADWP September 2017 forecast indicates that its total energy sales in the 2023-2024 fiscal year (the Project's opening year) will be 23,033 gigawatt hours (GWh).[24] LADWP continues to increase the use of renewable energy to meet customer needs, and has a goal to meet 33 percent renewable energy in December 2020 and 60 percent by December 2030 (in accordance with SB 100 that was adopted in September 2018), utilizing wind, solar, geothermal, and biomass energy sources. As of 2016, which is the most recent year for which data are available, LADWP has achieved 29 percent renewable energy sales. Since 1990, LADWP has divested from three coal plants and repowered thirteen natural gas and oil fueled in-basin generating units using cleaner and more efficient new combustion technology, resulting in 19 percent lower GHG emissions and over 90 percent lower NO_X emissions.[25]

As shown below in Table 6-10, Summary of Energy Consumption During Project Operation, the estimated annual consumption of electricity would be approximately 3,533,210 kWh. When compared to the LADWP's projected sales in 2023 of 23,003 GWh per year, the Project's electricity demand would represent approximately 0.015 percent of total demand. This amount is negligible

[21] Los Angeles Department of Water & Power (LADWP) (2017), Power Strategic Long-Term Resource Plan. Available at https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc;jsessionid=mGT9dXPJdnB5n24XLvSlG1pNTrJ0FHXGFpRNlsH16NF4gcLnZWyf!-1249535111?_adf.ctrl-state=d7jp385ep_4&_afrLoop=70435002221502&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D70435002221502%26_afrWindowMode%3D0%26_adf.ctrl-state%3Du7exxlb3u_4. Accessed August 15, 2019.

[22] Ibid

[23] Ibid

[24] Ibid., Appendix A, pg. 34

[25] Ibid

and is within the anticipated service capabilities of LADWP. The estimated power requirements for the Project is part of the total load growth forecast for the City of Los Angeles and has been taken into account in the planned growth of the City's power system. As discussed above, the Project would be required to comply with energy conservation standards pursuant to Title 24 of the California Administrative Code. The Project would also be required to comply with the L.A. Green Building Code, which incorporates by reference the CALGreen Code. The L.A. Green Building Code, effective January 1, 2017, requires the use of numerous conservation measures, beyond those required by Title 24 of the California Administrative Code. The L.A. Green Building Code contains both mandatory and voluntary green building measures to conserve energy. Among many requirements, the L.A. Green Building Code requires projects to achieve a 20 percent reduction in wastewater generation. To comply, the Project would include energy conservation features. Specifically, the residential units would include energy efficient lighting fixtures, ENERGY STAR-rated appliances, low-flow water features, and energy efficient mechanical heating and ventilation systems. The Applicant is also proposing to install solar panels on the roof level. Thus, the Project would incorporate energy conservation features. Additionally, LADWP would confirm the availability of electric service for the Project. Therefore, the development of the Project would not cause wasteful, inefficient or unnecessary consumption of electricity.

TABLE 6-10
SUMMARY OF ENERGY CONSUMPTION DURING PROJECT OPERATION

Energy Type	Annual Quantity
Electricity	3,533,210 kWh
Natural Gas	6,611,610 kbtu
Gasoline (mobile sources)	415,201 [a] gallons
Diesel (mobile sources)	15,403 [a] gallons

Notes:
Detailed calculations are provided in Appendix D of this SCEA.
kWh = kilowatt-hours; kbtu = kilowatt-hours British thermal units
[a] Totals may not add up due to rounding of decimals.
Source: ICF 2019

Natural Gas

Natural gas for the Project Site is provided by Southern California Gas Company (SCG). According to the 2019 California Gas Report Supplement, the annual gas supply delivered by SCG in 2018 was 2,342 million cubic feet (MMcf)/day.[26] The demand for total natural gas is expected to decrease at an annual rate of 0.74 percent per year from 2018 to 2035.[27] This decrease is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, tighter standards created by revised Title 24 Codes and Standards, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI). Thus, with the natural gas consumption becoming more efficient and

[26] California Gas and Electric Utilities, 2019, pg. 26, https://www.socalgas.com/regulatory/documents/cgr/2019_CGR_Supplement_7-1-19.pdf, Accessed August 16, 2019

[27] California Gas and Electric Utilities, 2018 California Gas Report, pg. 66, https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf, Accessed August 16, 2019.

decreasing, the SCG's projection for natural gas also decreases. As shown in Table 6-11, the natural gas consumption as a result of the operation of the Project would be approximately 6,611,610 kbtu per year, which translates into approximately 6.5 MMcf per year or 0.02 MMcf per day. Based on their 2018 California Gas Report, the California Energy and Electric Utilities estimate natural gas capacity within SoCalGas' planning area will be approximately 3,775 MMcf per day in 2023 (the Project's opening year).[28] Thus, the Project's annual natural gas consumption would represent 0.0005 percent of the 2023 forecasted capacity in SCG's planning area.

As discussed above, the Project would be required to comply with energy conservation standards pursuant to Title 24 of the California Administrative Code. The Project would also be required to comply with the L.A. Green Building Code, which has been effective as of January 1, 2017. The L.A. Green Building Code requires the use of numerous conservation measures, beyond those required by Title 24 of the California Administrative Code. The L.A. Green Building Code contains both mandatory and voluntary green building measures to conserve energy. Therefore, compliance with Title 24 of the California Administrative Code and the L.A. Green Building Code would reduce the Project's energy consumption. Therefore, the development of the Project would not cause wasteful, inefficient or unnecessary consumption of natural gas.

Transportation-Related Fuels

Operation of the Project would generate vehicle trips associated with people driving to and from their residence or for commercial needs at the Project Site. Based on the trip generation rates provided in the Project Traffic Study, and the vehicle trip lengths calculated in the CalEEMod Air Quality worksheets, it is estimated that operation of the Project would result in approximately 9,111,863 vehicle miles traveled (VMT) on an annual basis. It is estimated that the VMT would result in the annual consumption of approximately 415,205 gallons of gasoline fuel and 15,403 gallons of diesel for project operations.[29]

The Project includes conservation measures and design features that would decrease consumption of petroleum-based fuels (gasoline and diesel). The Project is a mixed-use development located in a transit priority area, in an infill location close to jobs, residential, government and service uses. In addition, the Project proposes to be prewired for electric vehicle (EV) charging at 30 percent of its parking capacity for future use, of which ten percent will be installed with chargers for immediate us by EVs, in accordance with the CALGreen Code. The Project would also install 194 long-term and 30 short-term bicycle parking spaces. As an infill development, the Project would replace two existing one-story commercial and office buildings with a more efficient seven-story mixed-use-development as well as ground level commercial uses. Because of the Project Site's close location near transit service, a number of trips would be expected to be transit or walking/bicycle trips rather than vehicle trips. Some residents would take transit to their destinations or would walk to commercial uses and other services nearby. The expected reduction in vehicle trips would therefore decrease the Project's consumption of petroleum-based fuels. As such, the development of the Project would not cause wasteful, inefficient or unnecessary

[28] California Gas and Electric Utilities, *2018 California Gas Report*, 2018, p. 103. Available at: https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf. Accessed August 2019.

[29] See Appendix D for detailed calculations.

consumption of petroleum-based fuels and would promote walking, biking, and other modes of public transportation.

Conclusion

Based on the above impact analysis, the Project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. No mitigation measures would be required.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. Based on the analysis provided below, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. All of the Project's energy demands will be served by LADWP, and comply with the 2016 Title 24 standards, CALGreen Code, and the Los Angeles Green Building Code, as amended to be more stringent than State requirements in LAMC Chapter 9, Article 9 (Green Building Code). The L.A. Green Building Code requires that projects comply with the following requirements related to water efficiency, solid waste reduction, and electric vehicle supply equipment:

Solid Waste Reduction. California Green Building Code Section 4.408.1, imposes mandatory measures for residential projects that require developers to recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance. Diversion efforts would be accomplished through source reduction, recycling, and composting. Finally, the Project is required by the California Solid Waste Reuse and Recycling Access Act of 1991 to provide adequate storage areas for collection and storage of recyclable waste materials. As such, a 65 percent reduction of a Project's waste stream to the local landfill would reduce methane emissions and thus lower the Project's contribution to global GHG emissions.

Water Conservation**.** As mandated by the 2017 Los Angeles Green Building Code, the Project would be required to provide a schedule of plumbing fixtures and fixture fittings that implement water use reduction by complying with one of the following: (1) a 20% reduction in the building's "water use baseline" as demonstrated in Table 4.303.4.1 of Section 4.303.4 of the Los Angeles Plumbing Code; or (2) comply with the maximum flow rates shown in Table 4.303.4.2 of the Plumbing Code's Section 4.303.4. The Project's water budget for landscape irrigation use shall conform to the California Department of Water's Resources Model Water Efficient Landscape Ordinance (MWELO). Such landscape water reduction methods include, but are not limited to, use of captured rainwater, recycled water, graywater, or water treated for irrigation purposes and conveyed by a water district or public entity. It must also provide irrigation design and controllers that are weather- or soil moisture-based and automatically adjust in response to weather conditions and plants' needs.

Electric Vehicle Supply Equipment. In 2015, the City of Los Angeles amended the L.A. Green Building Code to incorporate requirements for the installation of electric vehicle charging equipment for new construction. Pursuant to Ordinance No. 186485, at least ten percent of the

Code-required parking stalls shall be electric vehicle charging spaces (EV spaces) and at least 30 percent of the total Code-required parking spaces stalls shall be capable of supporting future electric vehicle supply equipment (EVSE). The Project will provide EV charging at 30 percent of its parking capacity for future use, of which ten percent will be installed with chargers for immediate use by EVs. These parking spaces would be consistent with State and City GHG policies to encourage and support alternative clean fuel supplies for vehicles and would further serve to reduce GHG emissions attributable to the vehicle trips generated by the Project.

Energy conservation and production measures in the Project would decrease overall energy consumption, decrease reliance on non-renewable energy sources, and increase reliance on renewable energy sources at the Project Site. Construction energy consumption would be a temporary energy expenditure and, as discussed above, would not occur in an inefficient or wasteful manner. Permanent energy saving and sustainable design would be incorporated throughout the Project to reduce operational energy uses. The Project would emphasize energy and water conservation, which would be achieved through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems, and energy star appliances, and low flow plumbing fixtures. The Project would also include solar panels on 15 percent of the rooftop space. All of these features would comply with CALGreen, Title 24, and the Los Angeles Green Building Code.

As discussed previously, the Project Site is located in an infill area in a highly urbanized location that is supported by regional and local transit services that would encourage alternative modes of transportation and a reduction in overall VMT. The Project would increase density, location efficiency, and follow many of the Land Use measures outlined in the Transportation Category in the California Air Pollution Control Officers Association's guidance measures. The Project would support statewide efforts to improve transportation energy efficiency through its classification as an infill location close to shopping centers and other destinations. The Project is located in an urban infill location, within the Sun Valley-La Tuna Canyon Plan Community Plan, which has nearby access to shops, restaurants, offices, and other services. This is consistent with the State's overall goals to reduce VMT as outlined in the 2016 RTP/SCS for the region, which seeks improved access and mobility by placing "destinations closer together, thereby decreasing the time and cost of traveling between them." Furthermore, the Project Site is served by public transportation options, as the Project Site is approximately 0.9 miles from the Metrolink Sun Valley Station and within close proximity to Metro Bus lines 224 and 353. As the Project would be designed in manner that reduced transportation-related fuel consumption, consistent with CEQA Guidelines Appendix F requirements, the Project would reduce wasteful or inefficient energy consumption with respect to transportation.

Conclusion

The Project would not directly or indirectly conflict with any state or local plans affiliated with renewable energy and/or energy efficiency. Therefore, the Project would have a less-than-significant impact on energy resources and no mitigation measures are required.

Cumulative Impacts

Energy

Development of the Project in conjunction with the related projects could cumulatively increase electricity, natural gas, and transportation-related fuel consumption. There are 8 related projects located within the vicinity of the Project Site. The geographic context for the cumulative impacts analysis regarding electricity is LADWP's service area and the geographic context for the cumulative impacts analysis regarding natural gas is SCG's service area. With respect to the geographic context for the cumulative impacts analysis regarding transportation-related fuel, for the purpose of this analysis the Project's potential cumulative impacts are assessed in the context of County-wide consumption.

Electricity

As discussed previously, LADWP forecasts that its total energy sales in the 2023–2024 fiscal year (the Project opening year) will be 23,033 GWh of electricity. Based on the Project's estimated new electrical consumption of 3,533,210 kWh/year, the Project would account for approximately 0.015 percent of LADWP's total projected sales, and thus its supplies, in the Project's opening year. Thus, the Project would result in the use of renewable and non-renewable electricity resources on a relatively small scale. Additionally, the Project would include energy conservation features, including energy efficient lighting fixtures, ENERGY STAR-rated appliances, low-flow water features, and energy efficient mechanical heating and ventilation systems for the 432 residential units. The Project would also install solar panels on the roof level. As with the Project, the other future related projects would also be expected to incorporate energy conservation features, comply with applicable regulations (e.g., anti-idling vehicle regulations during construction), the 2016 Title 24 standards and CALGreen code, the Los Angeles Green Building Code, and incorporate mitigation measures, as necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet their respective needs. Thus, use of electricity resources by cumulative development in the Project area would be reduced by conservation features and measures that would be implemented by each individual development project and by state measures requiring LADWP to obtain more of its supplies from renewable resources. Overall, development of the Project and related projects would not result in the wasteful, inefficient and unnecessary use of electricity, and cumulative impacts would be less than significant.

Natural Gas

As discussed previously, based on the 2018 California Gas Report, the CEC estimates natural gas capacity within SCG's planning area will be approximately 3,775 million cf per day in 2023 (the Project's opening year). The Project, which would be required to comply with energy conservation standards pursuant to Title 24 of the California Administrative Code and the L.A. Green Building Code, would account for approximately 0.0005 percent of the 2023 forecasted consumption in SCG's planning area. Thus, the Project would result in the use of natural gas resources on a relatively small scale. As with the Project, the related projects would also be expected to incorporate energy conservation features, comply with applicable regulations including the 2016 Title 24 standards and CALGreen code, the Los Angeles Green Building Code, and incorporate mitigation measures, as necessary. In addition, development projects within SCG's service area, including the

Project and related projects, would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. Therefore, although development of the Project and related projects would result in the use of natural gas resources, the use of such resources would not occur in a manner that is considered to be wasteful, inefficient, and unnecessary. Cumulative impacts associated with natural gas use by the Project and related projects would be less than significant.

Transportation Energy

As shown in Table 6-10, it is estimated that Project would result in the annual consumption of approximately 415,205 gallons of gasoline fuel and 15,403 gallons of diesel during operations, resulting in the consumption of a total of 430,608 gallons of petroleum-based fuels per year. Based on reported data collected by retail transportation fueling stations on gasoline and diesel fuel sales in California, the amount of gasoline and diesel sales in 2018 for Los Angeles County was approximately 3,638 and 253 million gallons, respectively. As such, the annual transportation-related fuel usage for the Project would represent approximately 0.01 percent and 0.006 percent of Los Angeles County's 2018 annual on-road gasoline- and diesel-related energy consumption.

As discussed previously, the Project includes conservation measures and design features that would decrease consumption of petroleum-based fuels, including its location within an identified transit priority area. The mixed-used nature of the Project and its urban infill location in proximity to public transit options would reduce VMT by encouraging use public transit (as opposed to passenger vehicle trips) and walking by residents. In addition, the Project proposes to be prewired for electric vehicle (EV) charging at 30 percent of its parking capacity for future use, of which ten percent will be installed with chargers for immediate us by EVs, in accordance with the CALGreen Code. The Project would also install 194 long-term and 30 short-term bicycle parking spaces. As such, the development of the Project would not cause wasteful, inefficient or unnecessary consumption of petroleum-based fuels and would promote walking, biking, and other modes of public transportation. As with the Project, other related projects would also be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions consistent with applicable provisions of the SCAG 2016 RTP/SCS for the land use type. Each related project would need to demonstrate consistency with State and regional goals for reducing VMT and, where necessary, would need to incorporate project design features or mitigation measures as required under CEQA to achieve consistency with these goals. Additionally, the consumption of transportation-related fuels by the Project and related projects would also be minimized over time due to improvements to vehicle fuel economy or passenger vehicles pursuant to federal and State regulations. Thus, development of the Project and related projects would not result in a cumulatively considerable impact related to the consumption of transportation-related fuels. This cumulative impact would be less than significant.

Conclusion

The Project's contribution to cumulative impacts related to energy consumption would be less than significant and would not be cumulatively considerable.

6.7 Geology and Soils

The following discussion of Geology and Soils is based, in part, on the Preliminary Geotechnical Investigation prepared by Byer Geotechnical Inc, dated March 30, 2020. A Geotechnical Evaluation report prepared by Twining Inc. on June 15, 2017 was used also as a reference. The City of Los Angeles Department of Building and Safety submitted A Soils Approval Letter for the Project on April 28, 2020. The Geotechnical Report is attached hereto as Appendix E. The following discussion of paleontological resources is based on the Cultural and Paleontological Resources Assessment Report prepared by ICF in September 2019.

Would the project:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less Than Significant Impact. Southern California is historically, a seismically active region. The western edge of the North American continent is in contact with the Pacific tectonic plate. Movement of these plates results in a buildup of stress along the margins. Stress is generally relieved through faulting and / or folding of the crustal rock. When slippage occurs along one of the many faults in California, the ground shakes. Earthquakes are considered common to the Southern California region and the Project Site will most likely undergo shaking during the lifespan of the structures. The amount of shaking that structures will be subjected to depends upon several factors including: the distance from the earthquake, the magnitude of the quake, and the type of earth materials that lie beneath the site.

The Geotechnical Report notes that no known surface traces of active faults traverse the Project Site. The Project Site is not located within an Alquist-Priolo Earthquake Fault Zone. The nearest potential seismic source is believed to be the Verdugo fault, a northeast dipping reverse fault located about 1 mile to the east of the Project Site. The Verdugo fault is capable of producing a maximum magnitude of 6.9 and an average slip rate of 0.5 millimeters per year. As concluded in the Geotechnical Report, there are no active or potentially active faults close enough to the Project Site to produce fault rupture or surface displacement at the Project Site. The Project would not contain uses or activities that would exacerbate the activity of a known earthquake fault.

Conclusion

The Project would not directly or indirectly cause potential substantial adverse impacts from fault rupture. Impacts are less than significant, and no mitigation measures are required.

ii. Strong seismic ground shaking?

Less Than Significant Impact. A significant impact would occur if the Project would exacerbate the risk of personal injury or death or property damage as a result of seismic ground shaking. The entire Southern California region is susceptible to strong ground shaking from severe earthquakes. Seismic activities have been associated with a number of nearby faults (e.g., Hollywood, Raymond, Verdugo, Newport-Inglewood, Santa Monica, Malibu Coast, and Palos Verdes Hills Faults). Although the Project Site is located within the seismically active Southern California region, it is not exposed to a seismic risk greater than other properties in the City. The level of ground shaking that would be experienced at the Project Site from active or potentially active faults, or blind thrust faults, in the region would be a function of several factors, including earthquake magnitude, type of faulting, distance from the epicenter, earthquake depth, duration of shaking, site topography, and site geology. Moreover, notably, the effects of seismic ground shaking on the Project and its future occupants is not an environmental impact under CEQA, which only analyzes the impacts on the environment caused the Project and not the other way around. CEQA only requires an analysis as to whether the Project would exacerbate an existing condition in manner that would present risk to future occupants and the public.

Nevertheless, while it is likely that future earthquakes produced in Southern California would shake the Project Site, modern, well-constructed buildings are designed to resist ground shaking through the use of shear panels and other forms of building reinforcement. As with any new project development in the State of California, building design and construction are required to conform to the current seismic design provisions of the City's Building Code, which incorporates relevant provisions of the 2016 California Building Code (CBC).

The 2016 edition of the CBC is based on the 2015 International Building Code (IBC) published by the International Code Council, which replaced the Uniform Building Code. The 2016 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes. Seismic design provisions of the building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of the dead and live loads of the structure, which the structure then must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces that would be associated with a major earthquake. Consequently, structures should be able to: (1) resist minor earthquakes without damage, (2) resist

moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage.[30]

The 2016 CBC, as amended by the City's Building Code, incorporates the latest seismic design standards for structural loads and materials to provide for the latest in earthquake safety. Compliance with requirements would reduce seismic ground shaking impacts to the maximum extent practicable under current engineering practices. The Project would not contain uses or activities that would exacerbate the risks from existing environmental conditions.

Conclusion

The Project would not directly or indirectly cause potential substantial impacts related to strong seismic ground shaking. Impacts would be less than significant, and no mitigation measures are required.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is an earthquake related phenomena, that generally occurs where the underlying sandy soil has a low to moderate density in areas where high groundwater conditions exist. As noted in the Geotechnical Report, based on boring activity at the Project Site by Byer Geotechnical Inc. and Twinning's Inc., groundwater was encountered at a depth of 51.5 feet. Based a review of hydrological records of the Los Angeles County of Public works, groundwater levels in the vicinity of the Project Site range from 170 feet to 339 feet below grade. State groundwater maps indicates that the historic high groundwater levels at the site are about 130 feet below the ground surface. The Project would excavate to approximately 25 below the surface and is not expected to encounter groundwater. A review of available seismic hazard maps indicates the Project Site is not located within an area susceptible to liquefaction. The Project is not located within a liquefaction area as identified in the City of Los Angeles General Plan Safety Element. Liquefaction is not expected to occur at the site during the lifespan of the project. Subsequently, the risk for seismically induced settlement, lateral spreading and ground effects phenomena such as sandboils, ground fissures, etc., is considered to be low.

The Project would not contain uses or activities that would exacerbate existing environmental conditions.

Conclusion

The Project would not directly or indirectly cause potential substantial impacts related to ground failure or liquefaction. Impacts would be less than significant, and no mitigation measures are required.

[30] 2016 California Building Code, Part 2, Volume 2, Section 1613, https://codes.iccsafe.org/content/chapter/1832/?site_type=public. Accessed August 2, 2019.

iv. Landslides?

No Impact. Landslide potential is generally the greatest for areas with steep and/or high slopes, low sheer strength, and increased water pressure. The Project Site is relatively flat; the total elevation difference between southeast corner and northwest corner of the Project Site is 2 feet, with little topography that could create the likelihood of landslides or earthquake-induced landslides. As shown in the State's Landslide Inventory, the Project Site is not located within a landslide inventory area.[31] Further, the Project Site is not located within an area of historically earthquake-induced landslides identified on the Earthquake-Induced Landslides Zones map prepared by the City of Los Angeles.[32] The Project would not contain uses or activities that would exacerbate existing environmental conditions.

Conclusion

The Project would not directly or indirectly cause potential substantial impacts related to landslides. No impact would occur, and no mitigation is required.

b. Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The Project Site is currently developed with office and a single-story commercial building, paved surface parking, and storage areas. There are limited areas of landscaping within the Project Site. Project construction would involve ground-disturbing activities (e.g., excavation, grading, and foundation construction) that would expose soils for a limited time and allow for possible erosion.

However, the potential for erosion would be reduced by implementation of required regulatory erosion controls imposed during site preparation and grading activities. Specifically, all grading activities would require grading permits from the LADBS, which would include requirements and standards designed to limit potential impacts associated with erosion. In addition, on-site grading and site preparation would be required to comply with all applicable provisions of Chapter IX, Article 1, Division 70 of the LAMC, which address grading, excavations, and fills. This LAMC division requires that all grading activities occur in accordance with grading permits issued by LADBS. The permits typically require that excavation and grading activities be scheduled during dry weather periods. Should grading activities occur during the rainy season (October 1st to April 14th), a Wet Weather Erosion Control Plan (WWECP) must be prepared pursuant to the "Manual and Guideline for Temporary and Emergency Erosion Control," adopted by the Los Angeles Board of Public Works. The WWECP would include measures such as diversion dikes to channel runoff around the Project Site. Division 70 also requires that stockpiles, excavated, and exposed soil be covered with secured tarps, plastic sheeting, erosion control fabrics, or treated with a bio-degradable soil stabilizer. A deputy grading inspector is required to be on-site during grading operations to ensure adhered to applicable regulations. Lastly, as Project construction would require

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[31] California Department of Conservation, Division of Mines and Geology, Shttps://maps.conservation.ca.gov/cgs/lsi/app/ Los Angeles County, Accessed August 7, 2019.

[32] City of Los Angeles, Bureau of Engineering, Department of Public Works, Navigate LA website: https://www.ladbsservices2.lacity.org/OnlineServices/PermitReport/ParcelProfileDetail2?pin=189B169-328, Accessed August 7, 2019.

greater than 1 acre of ground-disturbing activities, the Applicant would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the National Pollutant Discharge Elimination System (NPDES) permit.[33] The SWPPP incorporates best-management practices (BMPs) in accordance with the City of Los Angeles' Best Management Practices Handbook, Part A - Construction Activities, to control erosion and to protect the quality of surface water runoff during the Project's construction period.[34]

Following the completion of construction, the potential for erosion would be relatively low due to the fact that the Project Site would be largely impervious and include drainage control features. The use of hardscape and landscape plantings would act as an effective barrier to soil erosion by impeding direct contact between precipitation/irrigation and on-site soils.

With conformance with applicable regulations, including implementation of an erosion control plan as part of a SWPPP, and required drainage control features, impacts regarding wind or waterborne erosion during construction and operation of the Project would be less than significant.

Conclusion

The Project would not directly or indirectly cause potential substantial impacts related to soil erosion or the loss of topsoil. Impacts would be less than significant, and no mitigation is required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. Impacts related to liquefaction and landslides are addressed above under Items 6.7.a.iii and 6.7.a.iv, respectively. As indicated above, the Project Site is not located within an area susceptible to liquefaction. Lateral spreading results from earthquake-induced liquefaction, causing landslides associated with gentle slopes that flow laterally, like water. Land subsidence is a gradual settling or sudden sinking of the Earth's surface and can occur when large amounts of groundwater have been withdrawn from certain types of sediments, causing the land to subside. Therefore, considering the relatively flat topography and low potential for liquefaction at the Project Site, the potential for lateral spreading at the Project Site would also be low.

Since the Project Site is not located in a liquefaction zone and does not contain drainage channels or streams, and the Project would not remove any groundwater below the surface, the risk that development of the Project would cause or accelerate lateral spreading, landslides, subsidence, liquefaction, or collapse is low. Furthermore, all unconsolidated fill materials currently at the Project Site would be removed or compacted, as required by the City of Los Angeles Uniform

[33] United States Environmental Protection Agency (EPA) National Pollutant Discharge Elimination System (NPDES) Permits. https://www.epa.gov/npdes/npdes-state-program-information Accessed August 7, 2019.

[34] City of Los Angeles' Best Management Practices Handbook, Part A - Construction Activities. http://www.lastormwater.org/wp-content/files_mf/parta.pdf Accessed August 7, 2019.

Building Code standards. The Project would not contain uses or activities that would exacerbate existing environmental conditions.

Conclusion

The Project would not directly or indirectly cause potential substantial impacts related to lateral spreading, landslides, subsidence, liquefaction, or collapse. Impacts would be less than significant, and no mitigation is required.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. Expansive soils are typically associated with fine-grained clayey soils that have the potential to shrink and swell with repeated cycles of wetting and drying. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors and may result in unacceptable settlement or heave of structures or concrete slabs to support on grade. As stated in the Geotechnical Report, the onsite subsurface materials consist of fine to coarse grained silty sand. and expansion hazards are considered low. Regardless, the Project would be required to adhere to applicable provisions of the City's Building Code, which would address any potential for expansion. The Project would not contain uses or activities that would exacerbate existing environmental conditions.

Conclusion

Impacts related to substantial risk to life or property that could potentially cause direct or indirect adverse impacts as a result of expansive soils would be less than significant and no mitigation is required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Project Site is located in a highly urbanized area, where wastewater infrastructure is currently in place. The Project would connect to existing sewer lines that serve the Project Site and would not use septic tanks or alternative waste disposal systems.

Conclusion

No impact that could potentially cause direct or indirect adverse effects would occur and no mitigation is required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Less Than Significant Impact. The following discussion of paleontological resources is based on the Cultural and Paleontological Resources Assessment Report prepared by ICF in September 2019 which included a review of the Geotechnical Report and a fossil localities search requested by ICF

from the Natural History Museum of Los Angeles County (NHMLAC) on April 22, 2019, for the Project area.

The Project Site and its immediate vicinity are underlain by Quaternary young alluvial-fan deposits (Holocene and Late Pleistocene), which are described as "unconsolidated gravel, sand and silt, bouldery near mountain fronts, deposited chiefly from flooding streams and debris flows." These deposits have low to moderate paleontological resource sensitivity. The younger deposits are too young to contain fossils, but the potential for paleontological resources increases with depth.

In response to the fossil localities search requested by ICF on April 22, 2019, the NHMLAC indicated on May 6, 2019, that it had no recorded fossil localities in the Project footprint or the surrounding area. Based on this locality records search, no paleontological resources are known to be present in the Project footprint or within the 0.5-mile buffer of the Project Site. However, the NHMLAC advised that deeper excavations in the Project area that extend down into the older Quaternary sediments may well encounter significant vertebrate fossils.

Several gravel pits surrounding the Project Site have exposed soils, consisting of Quaternary old alluvial-fan deposits (Late to Middle Pleistocene). Quaternary old alluvial-fan deposits are described as "slightly to moderately consolidated silt, sand, and gravel deposits on alluvial fans." Older alluvial deposits have high sensitivity for paleontological resources, which are likely to include terrestrial vertebrates such as mammoths, mastodons, ground sloths, dire wolves, short-faced bears, saber-toothed cats, horses, camels, and bison. However, these deposits begin at approximately 700 feet above sea level, which is 100 feet below the Project Site's elevation of 800 feet above sea level. The proposed excavations for the Project's building foundations are expected to be up to 25 feet deep within the Quaternary young alluvial-fan deposits. These deposits are assigned a low paleontological sensitivity rating.

Furthermore, the Project Applicant would be required to comply with the City's standard condition of approval related to the inadvertent discovery of subsurface resources. In the event that any paleontological resources are encountered at the Project Site during construction or the course of any ground disturbance activities, all such activities shall halt immediately, at which time the applicant shall notify the City and consult with a qualified paleontologist to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined to be unnecessary or infeasible by the City. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. With compliance with the condition of approval, impacts would be less than significant.

Therefore, the Project is not expected to cause a substantial adverse change in the significance of a paleontological resource.

Conclusion

No impact that could potentially cause direct or indirect adverse effects would occur and no mitigation is required.

Cumulative Impacts: Geology and Soils

Impacts associated with geologic and soil issues are typically confined to individual project sites or within a very localized area because of site-specific conditions. Related projects would be subject to established guidelines and building code regulations and construction procedures pertaining to seismic hazards. The Los Angeles Building Code would require consideration of seismic design for all related projects. Related projects would be required to implement LAMC regulations for grading and excavations during construction, including SWPPP and Low Impact Development (LID) requirements. In addition, the related project sites are located in a highly urbanized area and would connect to existing wastewater infrastructure. Thus, the related projects would not need to use septic tanks or alternative waste disposal systems.

The Project Site is not located within a State-designated hazard zone for earthquake induced liquefaction or landslides. The Project and related projects would be required to comply with guidelines and building code regulations pertaining to seismic hazards and with approved geotechnical recommendations, risks associated with seismic rupture, lateral spreading, subsidence, liquefaction, or collapse would also be less than significant. The Project and related projects would comply with LAMC Regulations related to excavation and grading and would not require the need for septic tanks or alternative waste disposal systems.

Many of the related projects would require excavation that could potentially expose or damage potential paleontological resources. However, the related projects are located in developed urban areas with sites that have been previously disturbed, and the potential to encounter and cause a significant impact on surface resources is unlikely. Further, in association with CEQA review, and depending on the depth of excavation and sensitivity of respective sites, mitigation measures would be identified for those related projects that have the potential to cause significant impacts to undiscovered paleontological resources. Implementation of such mitigation measures for the related projects would avoid significant impacts to paleontological resources and human remains.

As discussed previously, the City's standard condition of approval would ensure the Project would not cause a significant impact on a unique paleontological resource. Thus, the Project's contribution to cumulative impacts would not be cumulatively considerable.

Conclusion

The Project's contribution to cumulative geology and soils impacts would be less than significant and would not be cumulatively considerable. No mitigation is required.

6.8 Greenhouse Gas Emissions

Details of the greenhouse gas (GHG) analysis are provided in the Air Quality and Greenhouse Gas Technical Report contained in Appendix A.

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency shall make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency shall have the discretion to determine, in the context of a particular project, whether to: (1) quantify GHG emissions resulting from a project and/or (2) to rely on qualitative analysis or performance-based standards.

CEQA Guidelines Section 15064.4(b) also provides that, when assessing the significance of impacts from GHG emissions, a lead agency should focus the analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change and consider a timeframe that is appropriate for the project. The lead agency's analysis should reasonably reflect evolving scientific knowledge and State regulatory schemes, and consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The analysis of the potential impacts from the Project's GHG emissions follows this approach.

The CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. Instead, they leave the determination of the significance of GHG emissions up to the lead agency and authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (CEQA Guidelines Sections 15064.7[b] and 15064.7[c]). The City has not adopted a threshold with supporting analysis setting forth approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. Additionally, although the City prepared its Sustainable City pLAn in 2015, followed by the update in 2019, these plans do not adopt thresholds of significance and otherwise do not meet the criteria established under CEQA Guidelines Section 15183.5(b) to be considered as qualified GHG reduction plans. Furthermore, the SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects).

In the absence of quantitative GHG thresholds and/or a qualified GHG reduction plan for use by a project to tier or streamline its environmental analysis, CEQA provides that a lead agency could

rely on regulatory compliance to show a less-than-significant GHG impact if the project complies with or exceeds those programs adopted by CARB or other State agencies. The Project is expected to be in operation by 2023. With respect to GHG regulations in the post-2020 period, the State has established a GHG emissions reduction target for 2030 that has been codified in law through Senate Bill (SB) 32 and CARB's 2017 Scoping Plan was adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone target applicable to the Project. The plan to achieve these statewide emission reduction goals is provided by the 2017 Scoping Plan (and future updates) and demonstrating consistency with the 2017 Scoping Plan will demonstrate that the Project is doing its fair share towards achieving statewide reduction targets.

Overall, in the absence of any adopted quantitative threshold and in accordance with case law and the CEQA Guidelines, the City, the lead agency, has determined that the Project would not have a significant effect on the environment if the Project is found to be consistent with applicable regulatory plans and policies to reduce GHG emissions, including the emissions reduction measures discussed within CARB's 2017 Scoping Plan, SCAG's 2016 RTP/SCS, and the City's Sustainable City pLAn and Green Building Code.

Note that GHGs and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective.[35] Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of Project-related GHG emissions.

Principle Greenhouse Gases

The principle anthropogenic (human-made) GHGs listed by the Intergovernmental Panel on Climate Change (IPCC) that contribute to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources. California law and the CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 CCR Section 15364.5).

The primary GHGs of concern associated with the Project are CO_2, CH_4, and N_2O. Principal characteristics of these pollutants are discussed below.

- **CO_2** enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO2 is also removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle.

[35] California Air Pollution Control Officers Association. 2008. *CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January.

- **CH_4** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.

- **N_2O** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (CO_2 has a global warming potential of 1 by definition). The GWP values used in this analysis are based on the IPCC Fourth Assessment Report (AR4) and United Nations Framework Convention on Climate Change reporting guidelines.[36] The AR4 GWP values are consistent with those used in CARB's most recent GHG inventory and the 2017 Scoping Plan Update.

SB 375 CEQA Streamlining

Section 21159.28 of the Public Resources Code (PRC), which was added under SB 375 that was enacted in 2008, provides that residential and mixed-use projects that meet certain criteria are eligible for CEQA streamlining, provided that CARB has accepted the Metropolitan Planning Organization's determination that the project area's SCS achieves the GHG emission reduction targets established by CARB for the region. Specifically, the eligibility criteria for CEQA streamlining under PRC Section 21159.28 is as follows:

- The project must be either a residential or mixed-use residential project where at least 75 percent of the total building square footage of the project consists of residential use, or a project that is a Transit Priority Project (TPP) as defined in Section 21155.

- The project must be consistent with the use designation, density, building intensity, and applicable policies specified for the project area in a CARB-accepted SCS.

- The project must incorporate the mitigation measures required by an applicable prior environmental document.

In cases where a project meets the criteria under Section 21159.28, the project would qualify for SB 375 CEQA Streamlining whereby no environmental analysis is required of: (1) project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network or (2) growth-inducing impacts. As discussed in Section 3, SCEA Criteria and Transit Priority Project Consistency Analysis, the Project has been determined to meet the criteria of Section 21159.28 for CEQA streamlining benefits. As such, no

[36] Intergovernmental Panel on Climate Change. 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf.

analysis of GHG emission impacts resulting from passenger cars and light-duty trucks associated with the Project is required.

Project Design Features

The following GHG-reducing PDF measure, which lists specific baseline development features that would be implemented by the Project Applicant and agreed to by the City, would be incorporated into the Project:

PDF-GHG-1:

- The Project shall install energy efficient appliances.
- The Project shall install low-flow plumbing fixtures.
- The Project shall provide 19 short-term and 183 long-term bicycle parking spaces at the Project Site.
- The Project shall plant a total of 117 trees, 15 of which would be street trees, along with native and drought-tolerant vegetation such as shrubs and ground cover.
- The Project shall install solar panels on 15 percent of the rooftop space of the proposed mixed-use building.
- The Project shall install prewiring for electrical vehicle (EV) charging for 30 percent of the total parking spaces provided at the Project Site.
- The Project shall provide EV parking spaces that are installed with chargers and ready for immediate EV use for 10 percent of the total parking spaces provided at the Project Site.
- The Project shall not provide any indoor fireplaces for residential units.
- The Project shall install outdoor power outlets to facilitate the use of electric landscaping equipment for maintaining common areas.
- The Project shall enroll in the organic waste recycling services provided by the solid waste collection service provider and ensure that compostable receptacles will be provided for the multi-family uses to reduce landfilled waste.

Short-term Construction

Construction of the Project would result in temporary generation of GHG emissions related to off-road equipment use and on-road vehicle operations. As mentioned previously, GHG emissions are measured exclusively as cumulative impacts; therefore, the Project's construction emissions are considered part of the total GHG emissions for the Project lifecycle, which also include GHG emissions during operations. In accordance with SCAQMD guidance, the Project's construction emissions are amortized over a 30-year period and the resulting annual emissions are combined with the Project's annual operational GHG emissions.

Table 6-11 below shows GHG emissions related to construction of the Project. As shown, construction of the Project is estimated to generate a total of 2,142 $MTCO_2e$ over the construction

period. When amortized over a 30-year period, the Project's construction GHG emissions would be approximately 71 $MTCO_2e$ per year. Because construction emission sources would cease once construction is complete, construction emissions are considered short term.

TABLE 6-11
ESTIMATED SHORT-TERM CONSTRUCTION RELATED GHG EMISSIONS

Construction Years	Estimated GHG Emissions ($MTCO_2e$)[a]
2019	79
2020	842
2021	514
2022	508
2023	200
Total Construction Emissions	**2,142**
Annual Construction Emissions (Amortized over 30 years)	71

Source: Emissions modeling by ICF using CalEEMod version 2016.3.2 (Appendix A).
[a] Totals may not add up due to rounding.

Long-term Operation

Area and indirect sources of GHG emissions associated with the Project would primarily result from electricity and natural gas consumption, water transport (the energy used to deliver water to and from the Project Site), and solid waste generation. GHG emissions from electricity consumed on the Project Site would be generated off-site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source. In addition, the new residential and retail uses at the Project Site would also generate mobile source emissions from motor vehicle trips generated by residents and patrons.

The estimated operational GHG emissions resulting from the Project are shown in Table 6-13. Additionally, in accordance with SCAQMD's recommendation, the Project's amortized construction-related GHG emissions from Table 6-11 are added to the operational emissions estimate in order to determine the Project's total annual GHG emissions.

TABLE 6-12
ESTIMATED ANNUAL GREENHOUSE GAS EMISSIONS FROM PROJECT OPERATION IN 2021
(METRIC TONS PER YEAR)

Emission Source	Estimated Annual GHG Emissions ($MTCO_2e$ per year)
Area	12
Energy	1,430
Mobile[b]	777
Waste	41
Water/Wastewater	197
Total Annual Operational Emissions [a]	2,457
Amortized Construction	71
Total Annual Project Emissions [a]	2,527

Source: ICF Emissions Modeling (Appendix A).

[a] Totals may not add up due to rounding.
[b] As the Project is a transit priority project that qualifies for SB 375 CEQA streamlining, the mobile-related GHG emissions presented in this table exclude those generated from passenger cars and light-duty trucks pursuant.

As shown in Table 6-12, the Project's total annual GHG emissions would be approximately 2,527 $MTCO_2e$ per year.

As discussed in the Methodology section, above, the Project's compliance with regulatory programs is used to analyze the significance of its potential impacts with respect to GHG emissions dating from its post-2020 completion and operation. Under this threshold approach, the Project's GHG emissions are evaluated for consistency with each major emission sector (e.g., energy, water, waste, mobile, and stationary) addressed in the 2017 Scoping Plan to determine whether the Project's emissions would conflict with applicable sector-specific reduction targets and strategies identified in the 2017 Scoping Plan to meet the State's 2030 target under SB 32. The following sections present the sector-by-sector analysis of the Project's potential GHG impacts.

Area Emissions

As shown in Table 6-12, emissions associated with area sources would be approximately 12 $MTCO_2e$ per year. The Project's area sources include gasoline-powered landscaping equipment (e.g., trimmers, mowers) and the outdoor courtyard fireplaces. Area source emissions associated with landscaping equipment are based on CalEEMod's default assumptions, which estimates equipment usage based on square footage of new building space. The landscaping at the Project Site would include trees, shrubs, and ground cover vegetation as opposed to grassed lawn areas, thereby minimizing the routine use of mowers and other landscaping equipment. Additionally, the Project's landscaped areas would be comprised of native and drought tolerant vegetation. This type of landscaping typically requires minimal pruning and maintenance, which also serves to minimize the use of fuel-powered landscaping equipment. The 2017 Scoping Plan does not include specific measures or 2030 emissions reduction requirements for landscaping equipment. While the inevitable transition away from fossil fuel equipment would be needed to achieve carbon neutrality by 2045, the 2017 Scoping Plan did not assume all electric landscaping equipment in their 2030 reduction analysis. Thus, because the use of trees and shrubs instead of grass lawn areas by the Project would reduce landscaping emissions relative to buildings that largely incorporate grass, the Project would be consistent with the 2017 Scoping Plan's overall goal of reducing emissions from fossil-fueled landscaping equipment.

Area source emissions associated with the Project's four outdoor courtyard fireplaces (i.e., two fireplaces and two fire pits), which would be natural gas fired, were accounted for in CalEEMod by selecting the use of natural gas fireplaces at four of the 432 total residential units proposed at the Project Site. For the purpose of conducting a conservative analysis, it was assumed that these outdoor fireplaces would be used 30 percent of the year. However, none of the 432 residential dwelling units would be equipped with indoor fireplaces under the Project. Because the Project would not supply the residential units with indoor fireplaces and would be limited to only four outdoor fireplaces, the fireplace emissions from the Project would be reduced relative to a residential building that supplies indoor fireplaces to its dwelling units. Thus, by not supplying indoor fireplaces for the residential units, the Project would be consistent with the 2017 Scoping Plan's goal of reducing GHG emissions associated with natural gas usage.

Energy Emissions

GHGs are emitted directly from buildings through the combustion of any type of fuel (e.g., natural gas for cooking). GHGs can also be emitted indirectly from the generation of electricity. The 2017 Scoping Plan outlines strategies to reduce energy demand and fossil fuel use, while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, greater efficiency in existing buildings, and electrification of end uses in commercial sectors. As shown in Table 6-12, the Project's building energy emissions would be approximately 1,430 $MTCO_2e$ per year.

OPR's 2018 *CEQA and Climate Change Advisory* recommends that a land use development project that "achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." While OPR recommends new buildings do not consume fossil fuels, the 2017 Scoping Plan does not assume all electric buildings in their 2030 reduction analysis. Rather, the 2017 Scoping Plan assumes new gas appliances will be high efficiency.

The Project would install energy-efficient HVAC and lighting systems, Energy Star appliances, and meet Cal Green and Title 24 Building Standards Code requirements. The Project would also include solar panels on 15 percent of the proposed mixed-use building's rooftop space. Though the Project would allow for natural gas appliances and heating, all units would meet high efficiency standards, consistent with the assumptions and emissions reduction requirements of the 2017 Scoping Plan for 2030. Thus, the Project would be consistent with the 2017 Scoping Plan's overall goal of reducing building energy emissions to meet the State's 2030 GHG reduction target.

Mobile Source Emissions

GHG emissions associated with on-road mobile sources are generated from residents, workers, and visitors, and delivery vehicles traveling to and from the Project Site. As noted previously, because the Project is a transit priority project that qualifies for CEQA streamlining under SB 375, no environmental analysis is required for the Project's GHG emissions from passenger cars and light-duty trucks. As shown in Table 6-13, emissions from mobile sources (excluding passenger cars and light-duty trucks) would be approximately 777 MTCO2e per year. It should be noted that these emissions are for the opening year (2023) of the Project, and that future annual emissions from mobile sources associated with the Project would continue to decline as the State's transportation sector transitions to zero-emission and lower-emission vehicles.

As discussed above, CARB acknowledges that reductions in VMT are required to meet the State's long-term climate change goals. The Project's urban infill location, with nearby access to public transportation in proximity to the Project Site, is consistent with State and local VMT reduction policies. The Project Site is in close proximity to multiple bus stops with high frequency transit service, including Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which

serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. Additionally, designated "Tier 2" bike lanes under the City's Mobility Plan 2035, which are bicycle lanes with striped separation on arterial roadways, are provided near the Project Site along Lankershim Boulevard north of Burbank Boulevard, along Laurel Canyon south of Strathern Street, and along Strathern Street west of Laurel Canyon, which would serve to reduce VMT. As a mixed-use development that is located within walking distance of businesses in the area and multiple transit options, the Project would also encourage pedestrian travel.

The Project would provide a total of 224 bicycle parking spaces at the Project Site, satisfying LAMC requirements to support bicycling by its residents and visitors. Thus, the Project's location in an urban infill site within a high-quality transit area (HQTA), as defined by SCAG, and a TPA along with its mix of land uses would encourage the use of transit, walking and bicycling. As such the Project would reduce VMT from automobiles and minimize GHG emissions associated with mobile emissions. Furthermore, in accordance with the CALGreen code the Project would install pre-wiring for EV charging spaces for 30 percent of its total parking capacity for future use, with 10 percent of the parking spaces having chargers installed for immediate use by EVs. The provision of EV spaces at the Project Site would further reduce mobile GHG emissions. Overall, the Project would be consistent with the state's goal of reducing VMT.

Land Use Emissions

The existing landscaping on the Project Site is limited and consists of 35 non-native and non-protected trees. As part of the Project, these existing trees would be removed and replaced with 117 trees, for a net increase of 82 trees. Additionally, the Project Site would also plant other native and drought-tolerant vegetation such as shrubs and ground cover. The increase in trees and vegetation at the Project Site would increase carbon sequestration over existing conditions. While there are no relevant measures in the 2017 Scoping Plan or explicit regulatory requirements related to tree or vegetation planting, the 2017 Scoping Plan does discuss the importance of maintaining natural and working lands, which also encompass green spaces in urban and built environments, to serve as a carbon sink. Additionally, the 2017 Scoping Plan notes that the creation and management of parks and other green space in urban areas, including expansion of the existing urban tree canopy, would help to reduce GHG emissions. Thus, the additional trees and native and drought-tolerant vegetation by the Project would be consistent with the 2017 Scoping Plan's overall goal of avoiding losses in carbon sequestration.

Waste Emissions

Solid waste may be disposed in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through anaerobic breakdown of material. The 2017 Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, re-use, composting, and material recovery. In addition, AB 341 requires mandatory recycling for certain commercial businesses, including a multi-family residential dwelling of five units or more.

As shown in Table 6-12, emissions associated with waste would be approximately 41 $MTCO_2e$ per year. As of February 1, 2018, a new waste and recycling system for all businesses and large apartment complexes in the City referred to as "recycLA" was implemented by the LA Sanitation, which is responsible in overseeing the collection and recycling of waste generated by residential, commercial and industrial uses in the City and surrounding communities. Under the recycLA program, the City is divided into 11 different service zones and waste collection contracts are awarded to seven different companies to collect trash at businesses, apartment buildings, and condos in those areas. Part of the services that recycLA will offer to businesses and large multi-family customers include blue bins for recycling and organics recycling. The implementation of this program aims to reduce landfill disposal by one million tons per year by 2025 and reduce waste by 65 percent in all 11 of the City's service zones, with the goal of achieving zero waste by 2050. Thus, upon its completion and operation in 2023, the Project would be served by this solid waste collection and recycling service, which is consistent with the 2017 Scoping Plan's overall goal of reducing waste emissions and its specific strategy to avoid landfill methane emissions by reducing the disposal of landfilled waste and organics through programs such as edible food recovery programs. In addition, these features would support and comply with AB 341's mandatory recycling requirement and support the state's recycling goal.

Water and Wastewater Emissions

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. The 2017 Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation (e.g., SB X7-7) through building and landscaping efficiency (e.g., Title 24).

As shown in Table 6-12, the annual emissions associated with water use would be approximately 197 $MTCO_2e$ during the Project's opening year. The Project would incorporate water efficiency measures in compliance with the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code, which incorporates by reference the CALGreen Code. The Project's design would utilize low-flow plumbing fixtures that at a minimum comply with the flush volumes and gallons per minute water rates in the CALGreen Code and City requirements that decreases indoor water use. Outdoor water conservation measures include the installation of water-efficient irrigation systems and the planting of water-efficient landscaping consisting of native and drought-tolerant vegetation to minimize irrigation requirements. Thus, the indoor and outdoor water conservation measures of the Project serve to support ongoing regulatory programs (e.g., SB X7-7, Title 24) that aim to reduce GHG emissions associated with conveying water and distributing water to ultimately achieve climate neutrality.

Conclusion

As discussed above, the Project's sustainability measures are consistent with applicable polices from the 2017 Scoping Plan and regulatory programs for the area, energy, water, waste, and land

use sectors. The Project's consistency with other statutes and policies related to GHG reduction efforts identified in the 2017 Scoping Plan are identified in AB 32, SB 32, and the 2017 Scoping Plan section under Item 6.8b below. The Project would also result in a net increase in trees at the Project Site along with other native and drought-tolerant vegetation over existing conditions, and therefore would be consistent with the 2017 Scoping Plan's overall goal of avoiding losses in carbon sequestration. The location of the Project in an urban infill site in proximity to multiple transit options along with its mixed-use development of residential and commercial uses would also result in a reduction in VMT that is consistent with the 2017 Scoping Plan's long-term climate change goals. Overall, GHG emissions from construction and operation of the Project would have a less than significant impact on the environment.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

SCAG 2016 RTP/SCS

The 2016 RTP/SCS is a long-range planning document that balances future mobility and housing needs with economic, environmental, and public health goals in the SCAG region. One of the key strategies of the plan is to integrate land use, housing, and transportation planning to ensure sustainable regional growth. Goals and policies included in the 2016 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling). SCAG's 2016 RTP/SCS complies with SB 375, which requires an SCS to be prepared as part of the RTP by each Metropolitan Planning Organization (MPO) that outlines policies to reduce per capita GHG emissions from automobiles and light trucks. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use design, alternative transportation, transit, mobility and access, network expansion, and transportation investment. Table 6-13 shows the Project's consistency with the 2016–2040 RTP/SCS goals and guiding policies.

TABLE 6-13
CONSISTENCY OF PROJECT WITH SCAG 2016–2040 RTP/SCS

Applicable Targets	Project Consistency Assessment
2016 RTP/SCS Goals	
1. Align the plan investments and policies with improving regional economic development and competitiveness.	**Not applicable.** SCAG and its member agencies are responsible for aligning RTP/SCS investments and polices with improving regional economic development and competitiveness. As such, this goal does not apply to individual development projects such as the Project.
2. Maximize mobility and accessibility for all people and goods in the region.	**Consistent.** The Project would be near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project would include 224 bicycle parking spaces for the residential and commercial uses of the Project, in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating them on a site that

Applicable Targets	Project Consistency Assessment
	would be within walking distance to businesses in the area and near multiple transit options.
3. Ensure travel safety and reliability for all people and goods in the region.	**Consistent.** The Project would involve the construction and operation of a mixed-use development. Although people and goods would travel to and from the Project Site by personal vehicle, transit modes, biking, or walking, the Project would have negligible bearing on regional travel safety and reliability. The Project would not conflict with this goal and would support its implementation by providing off-site street and right of way improvements as part of the development of the Project. The Project would improve public safety infrastructure near the Project Site by providing new lighting within the Project Site and around the perimeter including new building identification lighting, commercial accent lighting, wayfinding, balcony lighting, and security lighting. Pedestrian areas including pathways and entryways into the Project would be well-lit for security and ground-mounted. Pedestrian access to the Project would be distinct from vehicle driveways and the Project would not mix pedestrian and automobile traffic to ensure pedestrian safety. The Project would be subject to Site Plan review to ensure vehicle and pedestrian safety throughout the Project.
4. Preserve and ensure a sustainable regional transportation system.	**Not applicable.** This Goal is directed towards SCAG and does not apply to individual development projects such as the Project. Nevertheless, the Project is a mixed-use development that would be located near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project would include 224 bicycle parking spaces for the residential and commercial uses of the Project, in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating them on a site that would be within walking distance to businesses in the area and near multiple transit options. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Strategies that would be implemented as part of the TDM program include educational programs, a transportation information center/kiosk, bicycle amenities, and a contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements.
5. Maximize the productivity of our transportation system.	**Consistent.** The Project is a mixed-use development that would be located near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. By placing housing near jobs and transit, the Project would be consistent with the tenets of smart growth that maximize the productivity of the transportation system.
6. Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	**Consistent.** The Project would locate a mixed-use development in a TPA that would be within walking distance to existing bus lines and a Metrolink station. The Project would also provide long-term and short-term bicycle parking, which would give people more opportunities to bicycle, walk, and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that would be easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people because they would have greater opportunities for pedestrian and bicycling activity and reduce their reliance on automobiles.

Applicable Targets	Project Consistency Assessment
7. Actively encourage and create incentives for energy efficiency, where possible.	**Consistent.** The Project would comply with the California Title 24 Building Standards Code and CALGreen Code. Energy savings and a sustainable design would be incorporated throughout the Project. The Project would emphasize energy conservation, which would be achieved through the use of energy-efficient HVAC and lighting systems. In addition, of the 30% of parking spaces that would be prewired for charging, 10% would have chargers installed for immediate use by EVs. The Project would include solar panels on 15% of the mixed-used building's rooftop.
8. Encourage land use and growth patterns that facilitate transit and active transportation.	**Consistent.** The Project would involve construction and operation of a high-density, mixed-use development within a HQTA and TPA near bus and rail transit options; it would incentivize bicycle and pedestrian trips through the provision of supporting infrastructure.
9. Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Not applicable.** This policy is directed towards SCAG in allocating transportation investments. This goal does not apply to the individual development projects such as the Project, and no further analysis is required.
2016 RTP/SCS Guiding Policies	
1. Transportation investments shall be based on SCAG's adopted regional Performance Indicators.	**Not applicable.** SCAG and its member agencies are responsible for transportation investments and the use of performance indicators. The Project would not conflict with this policy.
2. Ensuring safety, adequate maintenance and efficiency of operations on the existing multimodal transportation system should be the highest RTP/ SCS priorities for any incremental funding in the region.	**Not applicable.** SCAG and its member agencies are responsible for the safety, maintenance, and operational efficiency of the transportation system. The Project would not conflict with this policy and would support its implementation by providing off-site street and right of way improvements as part of the development of the Project.
3. RTP/SCS land use and growth strategies in the RTP/SCS will respect local input and advance smart growth initiatives.	**Not applicable.** This Guiding Policy is directed towards SCAG and the City of Los Angeles and does not apply to individual projects such as the Project. Nevertheless, the Project would advance smart growth by locating a mixed-use development in a TPA within walking distance of existing bus lines and a Metrolink station. The Project would also provide long-term and short-term bicycle parking which would help people have more opportunities to bicycle, walk and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that are easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people as they would have greater opportunities for pedestrian and bicycling activity and to reduce their reliance on automobiles.
4. Transportation demand management (TDM) and active transportation will be focus areas, subject to Policy 1.	**Not applicable.** This Guiding Policy is directed towards SCAG and does not apply to individual projects such as the Project. Nevertheless, the Project would implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
5. HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy 1.	**Not applicable.** The Project is unrelated to HOV gap closures. The Project would not conflict with this policy.

Applicable Targets	Project Consistency Assessment
6. The RTP/SCS will support investments and strategies to reduce non-recurrent congestion and demand for single occupancy vehicle use, by leveraging advanced technologies.	**Not applicable.** SCAG and its member agencies are responsible for transportation investments and the use of advanced technologies to reduce congestion and demand for single occupancy vehicles. The Project would not conflict with this policy.
7. The RTP/SCS will encourage transportation investments that result in cleaner air, a better environment, a more efficient transportation system and sustainable outcomes in the long run.	**Not applicable.** SCAG and its member agencies are responsible for transportation investments that improve air quality, the environment, transportation efficiency, and sustainability. The Project would not conflict with this policy.
8. Monitoring progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.	**Not applicable.** SCAG and its member agencies are responsible for monitoring progress on all aspects of the RTP/SCS. The Project would not conflict with this policy.

Source: ICF, 2019.

Implementation of the SCS is intended to improve the efficiency of the transportation system and achieve a variety of land use types throughout the SCAG region that meet market demands in a balanced and sustainable manner. Some of the primary land use strategies discussed in the 2016 RTP/SCS include focusing new growth around transit (especially within the region's HQTAs), growth around "Livable Corridors," and providing more options for short trips. The 2016 RTP/SCS identifies HQTAs as a cornerstone of land use planning best practice in the SCAG region, and assumes that 46 percent of new housing and 55 percent of new employment locations developed between 2012 and 2040 will be located within HQTAs. Focusing growth in HQTAs would provide households with expanded transportation choices other than vehicle driving, including walking, biking, use of public transit (e.g., buses, light rail, commuter rail, subway), and shared mobility options, as well as more direct and easier access to jobs, schools, shopping, healthcare, and entertainment.

The Livable Corridor strategy discussed in the 2016 RTP/SCS refers to the use of integrated transportation and land use planning to revitalize commercial strips to increase economic activity and improve mobility options. This strategy includes promoting the development of mixed-use retail centers at key nodes along the corridors, increasing neighborhood-oriented retail at more intersections, and increasing zoning that allows for the replacement of under-performing auto-oriented strip retail between nodes with higher density residential and employment. Recognizing that 38 percent of all trips in the SCAG region are less than three miles, the 2016 RTP/SCS also includes land use strategies to encourage the use of alternative modes of transportation for short trips. One strategy to accomplish this is to shift retail growth from large centralized retail strip malls to smaller distributed centers throughout neighborhood mobility areas (NMAs), which are defined as neighborhood areas that have a high intersection density, low to moderate traffic speeds, and robust residential retail connections, to reduce distances residents would have to travel for retail goods. Another strategy involves the development of "Complete Communities," which are defined as mixed-use districts that have housing, employment, and a mix of retail and services located in close proximity to each other. These complete communities would allow for most daily needs of residents to be met within a short distance, which in turn would encourage short trips made by

walking and cycling as opposed to automobile travel. All of these land use strategies promoted in the 2016 RTP/SCS would reduce VMT and GHG emissions.

The Project would be consistent with the land use strategies of the 2016 RTP/SCS and the goals of SB 375, including the reduction of VMT and the corresponding mobile GHG emissions. As a transit priority project under SB 375 that is located in a HQTA, the Project locates a mixed-use development consisting of residential, retail, and restaurant uses near public transit, including frequent Metro bus lines and the Metrolink Sun Valley Station. The urban infill location of the Project Site is also surrounded by a diverse mixture of land uses including residential, office, commercial, industrial, school, and service uses. The diversity of land uses in proximity to the Project Site and the mix of uses associated with the Project would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in mobile GHG emissions. Thus, implementation of the Project would help accommodate forecasted growth within the SCAG region while also supporting the reduction of per capita GHG emissions from passenger vehicles consistent with the 2016 RTP/SCS. The Project would also incorporate energy and water conservation features to meet the CALGreen Code. Overall, the Project would be consistent with the goals of SB 375 and 2016 RTP/SCS.

AB 32, SB 32, and 2017 Scoping Plan

AB 32 and SB 32 outline the state's GHG emissions reduction targets for 2020 and 2030, respectively. In 2008 and 2014, CARB adopted the Scoping Plan and First Update, respectively, as a framework for achieving the emissions reduction targets in AB 32. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. CARB adopted the 2017 Scoping Plan in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. There is no state plan for addressing GHG reductions beyond 2030. As discussed previously, because the Project is expected to be in operation by 2023, the statewide GHG emissions reduction target for 2030 is the statutory statewide milestone target that is applicable to the Project.

Based on CARB's 2017 Scoping Plan, many of the reductions needed to meet the 2030 target will come from state regulations, including cap-and-trade, the requirement for increased renewable energy sources in California's energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The 2017 Scoping Plan indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes pertaining to sources of electricity and increased energy efficiency at existing facilities, and state and local plans, policies, or regulations that will lower GHG emissions relative to business-as-usual conditions. The 2017 Scoping Plan carries forward GHG reduction measures from the First Update, as well as new potential measures to help achieve the state's 2030 target across all sectors of the California economy, including transportation, energy, and industry.

As discussed above under Item 6.8a, the Project would be consistent with the applicable polices from the 2017 Scoping Plan and regulatory programs for the area, energy, water, waste, and land use sectors. The Project would be designed to meet the CALGreen Code and would emphasize energy and water conservation through the use of energy efficient HVAC and lighting systems, energy star appliances, and low flow plumbing fixtures. Solar panels would be installed on 15

percent of the Project's rooftop space and 30 percent of the provided parking spaces would be prewired for EV charging, with 10 percent of the parking spaces having chargers installed for immediate use by EVs. The Project would be consistent with the 2017 Scoping Plan's overall goal of avoiding losses in carbon sequestration by planting a net increase of 82 trees at the Project Site over existing conditions along with other native and drought-tolerant vegetation. By locating its mixed-use residential, restaurant, and retail commercial development on a Project Site that is located within a HQTA and TPA near frequent bus lines, the Metrolink Sun Valley Station, bike lanes, and a pedestrian network, the Project would reduce VMT by encouraging the use of transit, walking, and bicycling as compared to similar stand-alone residential uses that are not located in close proximity to transit. Thus, the GHG emission reductions resulting from the Project's features, design, and location would be consistent with the goals of the 2017 Scoping Plan and would assist the state with meeting its GHG reduction goals. Table 6-14 shows the Project's consistency with statutes and programs identified in the state's 2017 Scoping Plan that aim to reduce GHG emissions.

TABLE 6-14
CONSISTENCY OF PROJECT WITH 2017 SCOPING PLAN

Applicable Policies and Objectives	Project Consistency Assessment
SB 350: Reduce GHG emissions in the electricity sector through the implementation of the 50 percent RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, as part of the Project's sustainability goals identified in PDF-GHG-1, the Project would install energy-efficient appliances, low-flow plumbing fixtures, and solar panels on 15% of the rooftop space, all of which would reduce emissions in the energy sector.
Low-Carbon Fuel Standard: Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, as part of the Project PDF-GHG-1 would be implemented, which would reduce mobile-source GHG emissions by including short- and long-term bike parking, prewiring 30% of the total parking spaces for EV charging, and providing EV chargers at 10% of the total parking spaces.
Mobile Source Strategy (Cleaner Technology and Fuels [CTF] Scenario): Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, the Project would reduce mobile-source GHG emissions by including short- and long-term bike parking, prewiring 30% of the total parking spaces for EV charging, and providing EV chargers at 10% of the total parking spaces.
SB 1383: Approve and Implement Short-Lived Climate Pollutant strategy to reduce highly potent GHGs.	**Not applicable.** This policy is a state program that requires no action at the local or project level and is not applicable to the proposed Project. The Project would not conflict with this statute.
California Sustainable Freight Action Plan: Improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.	**Not applicable.** This policy is a state program that requires no action at the local or project level and is not applicable to the proposed Project. The Project would not conflict with this plan.
Post-2020 Cap-and-Trade Program: Reduce GHGs across largest GHG emissions sources.	**Not applicable.** This policy is a state program that requires no action at the local or project level. The Project would not conflict with this program.

Source: ICF, 2019.

City of Los Angeles – Sustainable City pLAn

The 2019 Los Angeles' Green New Deal is the first four-year update to the City's 2015 pLAn and expands in more detail the vision to achieve a sustainable future that entails a carbon-neutral economy by 2050. This updated plan accelerates targets from the 2015 pLAn for supplying renewable energy, increasing local water sourcing, reducing building energy, reducing VMT per capita, reducing municipal GHG emissions, increasing the percentage of zero emission passenger and City-fleet vehicles, building new housing near transit, and increasing the number of green jobs. Of the issue areas that are addressed in separate chapters in the 2019 updates to the pLAn, those that are relevant for the Project include: Renewable Energy, Local Water, Clean & Health Buildings, Housing & Development, Mobility & Public Transit, Zero Emission Vehicles, Water & Resource Recovery, and Urban Ecosystems & Resilience. The relevant targets established for each of these issue areas that are applicable to the Project are shown in Table 6-15. The Project-level analysis describes the consistency of the Project with these targets.

TABLE 6-15
CONSISTENCY OF PROJECT WITH SUSTAINABLE CITY pLAN (2019 UPDATE)

Applicable Targets	Project Consistency Assessment
Renewable Energy	
LADWP will supply 55% renewable energy by 2025; 80% by 2036; and 100% by 2045 Increase cumulative MW by 2025; 2035; and 2050 of: • Local solar to 900-1,500 MW; 1,500-1,800 MW; and 1,950 MW • Energy storage capacity to 1,654-1,750 MW; 3,000 MW; and 4,000 MW • Demand response (DR) programs to 234 MW (2025) and 600 MW (2035)	**Consistent.** Although this reduction target is applicable to the City's renewable energy programs, the Project would support this target by including solar panels on 15 percent of the rooftop space of the mixed-use building.
Local Water	
Reduce potable water use per capita by 22.5% by 2025; and 25% by 2035; and maintain or reduce 2035 per capita water use through 2050	**Consistent.** The Project would comply with the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code and incorporate water efficiency measures. The Project's design would utilize low-flow plumbing fixtures that at a minimum comply with the flush volumes and gallons per minute water rates in the CALGreen Code and City requirements to reduce indoor water use. The Project also incorporates outdoor water conservation measures including the installation of water-efficient irrigation systems and the planting of water-efficient landscaping consisting of native and drought-tolerant vegetation to minimize irrigation requirements.
Clean & Healthy Buildings	
Reduce building energy use per sq. ft. for all building types 22% by 2025; 34% by 2035; and 44% by 2050	**Consistent.** The Project would install energy efficient HVAC and lighting systems, Energy Star appliances, and meet Cal Green and Title 24 Building Standards Code requirements. The Project would also include solar panels on 15% of the proposed mixed-use building's rooftop space. Though the Project would allow for natural gas appliances and heating, all units would meet high efficiency standards.

Applicable Targets	Project Consistency Assessment
Housing & Development	
Ensure 57% of new housing units are built within 1,500 ft. of transit by 2025; and 75% by 2035 Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters	**Consistent.** The Project is located in an urban infill location that is in proximity of public transportation, including multiple bus stops with high frequency transit service such as the Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Project also sets aside 11 percent of its total residential units (48 affordable units) for Extremely Low or Very Low Income Households.
Mobility & Public Transit	
Increase the percentage of all trips made by walking, biking, micro-mobility / matched rides or transit to at least 35% by 2025; 50% by 2035; and maintain at least 50% by 2050 Reduce VMT per capita by at least 13% by 2025; 39% by 2035; and 45% by 2050	**Consistent.** By locating its mixed-use residential, restaurant, and retail commercial development on a Project Site that is located within a HQTA and TPA near frequent bus lines, the Metrolink Sun Valley Station, bike lanes, and a pedestrian network, the Project would reduce VMT by encouraging the use of transit, walking, and bicycling as compared to similar stand-alone residential uses that are not located in close proximity to transit. Additionally, the urban infill location of the Project Site is also surrounded by a diverse mixture of land uses including residential, office, commercial, industrial, school, and service uses. The diversity of land uses in proximity to the Project Site and the mix of uses associated with the Project would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation.
Zero Emission Vehicles	
Increase the percentage of electric and zero emission vehicles in the city to 25% by 2025; 80% by 2035; and 100% by 2050	**Consistent.** By providing prewiring for EV parking for 30 percent of its total parking spaces, with10 percent of the parking spaces having chargers installed for immediate use by EVs, the Project supports this reduction target by the City.
Waste & Resource Recovery	
Increase landfill diversion rate to 90% by 2025; 95% by 2035; and 100% by 2050 Eliminate organic waste going to landfill by 2028 Increase proportion of waste products and recyclables productively reused and/or repurposed within L.A. County to at least 25% by 2025; and 50% by 2035	**Consistent.** The Project would be served by a solid waste collection and recycling service under the recycLA program that was recently implemented on February 1, 2018. Part of the services that recycLA will offer to businesses and large multi-family customers include blue bins for recycling and organics recycling. The implementation of this program is aimed to achieve the City's zero waste goal by 2050.
Urban Ecosystem & Resilience	
Increase tree canopy in areas of greatest need by at least 50% by 2028	**Consistent.** The existing Project Site currently has 35 non-native and non-protected trees, with no street trees. As part of the Project, these existing 35 trees would be removed and replaced with a total 117 trees, resulting in a net increase of 82 trees. As such, the Project would support the City's reduction target associated with increase the City's tree canopy.

Source: ICF, 2019.

As described in Table 6-15, the Project would be consistent with and support the applicable City targets of the 2019 updates to the pLAn for achieving a carbon neutral economy by 2050.

City of Los Angeles Green Building Code

The Project would be consistent with the Los Angeles Green Building Code, which would reduce GHG emissions by complying with Title 24 Building Energy Efficiency Standards, as amended by the City, and installing Energy Star appliances. The Project would reduce indoor water use through the installation of low-flow plumbing fixtures that, at a minimum, comply with the flush volumes and gallons-per-minute water rates in the CALGreen Code and City requirements to decrease indoor water use. Outdoor water conservation measures include the installation of water-efficient irrigation systems and the planting of water-efficient landscaping, consisting of native and drought-tolerant vegetation, to minimize irrigation requirements. The HVAC system would also be designed in compliance with the CALGreen Code to maximize energy efficiency with respect to heat loss and heat gain. Each of these Project elements would help minimize GHG emissions, and the Project would be consistent with the Los Angeles Green Building Code.

Conclusion

In summary, the GHG emission reductions resulting from the Project's features, design, and location would be consistent with the goals of the 2017 Scoping Plan, SB 375, the 2016 RTP/SCS, and Los Angeles' Sustainable City pLAn and Green Building Code. Accordingly, the Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Cumulative Impacts: Greenhouse Gas Emissions

The State of California, through AB 32, has acknowledged that GHG emissions are a statewide impact. The Office of Planning and Research (OPR) acknowledges that although climate change is cumulative in nature, not every individual project that emits GHGS must necessarily be found to contribute to a significant cumulative impact on the environment. CEQA authorizes reliance on previously approved plans and mitigation programs that have adequately analyzed and mitigated GHG emissions to a less than significant level as a means to avoid or substantially reduce the cumulative impact of the project. As discussed above, the Project would be consistent with AB 32, SB 375, SB 32, the 2016-2040 RTP/SCS, and the City's local GHG reduction plan. Therefore, the Project's incremental contribution to any cumulative impacts would be less than significant and would not be cumulatively considerable.

6.9 Hazards and Hazardous Materials

The following discussion is based in part on the *Phase I Environmental Site Assessment* (Phase I ESA) prepared by Robin Environmental Management (REM), dated November 21, 2017. The Phase I ESA, which is included in Appendix F, was conducted to evaluate the presence of known or suspected hazardous materials or waste at the Project Site.

Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant. Typical of many construction projects, construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. However, all materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Also, all construction work would be performed consistent with applicable federal Occupational Safety and Health Administration (OSHA) Safety and Health Standards and Cal/OSHA requirements to ensure the safety and well-being of construction workers.

Operation of the Project's residential and commercial uses would involve the use and storage of small quantities of potentially hazardous materials in the form of typical cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance. The use of these materials would be in small quantities and in accordance with the manufacturers' instructions for use, storage, and disposal of such products. Therefore, operation of the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Conclusion

With compliance with applicable regulatory requirements, impacts would be less than significant and no mitigation measures are required.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant. Project construction would not involve the use of hazardous materials in substantial amounts such that a measurable risk to the public or the environment would result from construction activities.

As noted above, operation of the Project would not involve the routine use, storage, transport, or disposal of notable quantities of hazardous materials. Operation of the Project would involve the use of only small quantities of hazardous materials typically used in residential and commercial projects such as cleaning solvents, painting supplies, and pesticides for landscaping. However, such materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

The following topics discussed below were not identified as areas of potential concern but were identified during the Phase I ESA reconnaissance findings.

Asbestos-Containing Building Materials

The Project Site is currently developed with commercial and office buildings. The Project Site was historically used for office, residential, and nursery uses. The existing buildings on the Project Site

were developed in the 1940s and the 1960s. As the onsite structures were built before the 1978 federal regulations banning the use of asbestos containing building materials (ACBMs) were enacted, there is a potential for the presence of ACBMs in the on-site buildings. Therefore, prior to the issuance of any permit for the demolition of the existing buildings or the alteration of the existing church building to be retained, a comprehensive ACBMs survey of the buildings must be performed. California Health and Safety Code Section 19827.5, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. If no ACBMs are found, the Project Applicant shall provide a letter to the City of Los Angeles Department of Building and Safety (LADBS) from a qualified asbestos consultant indicating that no ACBMs are present in the onsite buildings. However, if ACBMs are found to be present, they would be abated in compliance with the SCAQMD Rule 1403 and other applicable State and federal rules and regulations. With regulatory compliance, the risk related to any existing ACBMs at the Project Site would be safely and appropriately managed, and the Project would result in no impact with regard to ACBMs.

Lead-Based Paint

Lead and lead compounds can be found in many types of paint. In 1978, the Consumer Product Safety Commission set the allowable lead levels in paint at 0.06 percent by weight in a dry film of newly applied paint. In the 1970s, the chief concern of lead paint was its cumulative effect on bodily systems, primarily when paint chips containing lead were ingested by children. As discussed above, the existing onsite buildings were constructed prior to the 1978 federal regulations banning the use of lead-based paints (LBPs). Therefore, there is potential for the presence of LBPs in the onsite buildings, which could pose a significant hazard to construction workers or the public.

Cal/OSHA's Lead in Construction Standard requires project proponents to develop and implement a lead compliance plan when LBP would be disturbed during construction.[37] The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA requires 24-hour notification if more than 100 sf of LBP would be disturbed. The regulations to manage and control exposure to LBP pertain to Project construction and include the potential demolition and disposal of lead-containing materials.

Should lead-based paint materials be identified, standard handling and disposal practices shall be implemented pursuant to CalOSHA regulations. With regulatory compliance, the risk related to any existing LBPs at the Project Site would be safely and appropriately managed, and the Project would result in no impact with regard to LBPs.

[37] California Code of Regulations, Title 8, Section 1532.1 Lead. https://www.dir.ca.gov/title8/1532_1.html.

PCBs

Polychlorinated biphenyls (PCBs) were once used as industrial chemicals whose high stability contributed to both their commercial usefulness and their long-term deleterious environmental and health effects. Prior to 1978, PCBs were commonly used in dielectric fluids in transformers, capacitors, and light ballasts due to their desirable thermal characteristics, and hydraulic fluid compactor. Due to their demonstrated toxicity and persistence in the environment, PCB manufacturing in the United States was discontinued.

Pole- and pad-mounted transformers were found in the vicinity of the onsite buildings, appearing in good condition without any sign of leakage. No PCB-containing hydraulic fluid trash compactor was discovered on the Project Site and the Project would result in no impact with regard to PCBs.

Radon Gas

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the list below:

EPA RADON ZONES

EPA Zones	Average Predicted Radon Levels	Potential
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

According to the California EPA, Los Angeles County is classified as a "Zone 2" county having a predicted average screening level between 2-4 picocuries per liter of air. Radon sampling was not conducted as part of the Phase I ESA.

Radon gas dissipates in outdoor settings and is present throughout Los Angeles County at concentrations considered to be harmless in the vast majority of areas. However, radon gas can accumulate inside buildings and enclosed spaces, depending on the building location, ventilation, and other factors. The US EPA recommends indoor remedial measures (such as enhanced ventilation) for residential, school, and office uses when radon concentrations exceed 4.0 picoCuries per liter (pCi/L) on an average basis (the US EPA action level). Based on EPA data, the radon level within the City at the Project's Site's general location, like much of the City of Los Angeles, is considered moderate with a predicted average indoor radon screening level between 2 and 4 pCi/L. As such, radon is not considered to present a significant hazard to the Project. Standard building practices related to indoor ventilation would ensure radon does not accumulate within the proposed buildings at harmful concentrations.

As such, the presence of radon gas is not expected at the Project Site, and the Project would result in no impact with respect to radon gas contamination.

Underground Storage Tank (UST)

The visual inspection of the Project Site revealed no evidence of surface or above ground features (e.g., fill pipe, vent pipes, fill connections, concrete pads, saw cuts, sumps, spill containment device, leak detection device, etc.) normally associated with underground storage tanks (USTs). The Project would result in no impact with respect to USTs.

Aboveground Storage Tank

The Phase I ESA included the visual inspection of the Project Site to find evidence of surface or aboveground features (e.g., fill pipe, vent pipes, fill connections, concrete pads, saw cuts, concrete pad, drains in vicinity, etc.) normally associated with aboveground storage tanks (ASTs). Visual observation also included inspection to identify any surface markings indicating the existence of aboveground product pipelines. No evidence on the presence of any on-site aboveground storage tank was identified and the Project would result in no impact with respect to ASTs.

Fuel Islands

The visual inspection of the Project Site revealed no evidence of fuel islands or dispensers either in operation or abandoned.

Hazardous Materials/Petroleum Products Storage and Handling

Except some containers for household maintenance chemicals, no containers storing automotive or industrial batteries, pesticides, paints or chemicals seemingly exhibiting toxic hazards were identified. No significant oil or chemical staining was noticed during a visit of the Project Site. No major spills, leakage, or staining were observed throughout the overall building areas and outdoor grounds. Concrete/asphalt pavement surfaces appeared impermeable and no major cracks or crevices were found in the areas of product storage and handling. The Project would result in no impact with respect to fuel islands.

Herbicides/Pesticides

Prior uses on the Project Site included nursery uses from 1949 to the early 2010's, at 7934 Lankershim Boulevard. According to the Phase I ESA, typical pesticide concentrations detected in soil samples pose no significant risk, i.e., a risk that results in one excess cancer risk in an exposed population of 1,000,000 for commercial, industrial, and residential exposures. The Project would result in no impact with respect to herbicides/pesticides.

Methane

The Los Angeles Methane Zone Map is a publication by the City of Los Angeles Department of Building and Safety (LADBS). This map identifies various areas of hazardous subsurface methane gas, within Los Angeles city limits. These hazardous gas zones are usually a result of naturally surfacing tar and crude oil, or shallow soil contamination by old oil drilling wells. Additionally, landfill sites are known to produce methane soil gas. As a result, the Los Angeles Methane Zone

Map categorizes two types of zones; methane buffer zones and methane zones. And each zone is based on proximity to a methane soil gas source. Consequently, according to the City of Los Angeles, most development projects within these zones require a methane mitigation system. The Project Site is not located in a Methane Zone per the LADBS Methane Zone Map, and as such, there would be no impacts related to methane hazards.

Conclusion

As discussed above, no evidence of significant environmental concern was identified in connection with the Project Site and no Phase II subsurface investigation was recommended for the Project Site. Compliance with regulatory requirements would ensure no significant construction impacts related to hazards would occur.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant. The closest schools to the Project are the Arminta Street Elementary School and the Arminta Street Early Education Center, located approximately 715 feet east of the Project Site, along Beck Avenue. As discussed above, construction of the Project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils typically used in construction. However, all such substances and materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions and are not expected to cause risk to the public or nearby schools. In addition, all construction work would be performed consistent with applicable federal Occupational Safety and Health Administration (OSHA) Safety and Health Standards and Cal/OSHA requirements to ensure the safety and well-being of construction workers. Thus, with compliance to applicable laws, regulations, and manufacturers' instructions, potential risks of exposure to hazardous materials for the public or the environment, including schools due to Project construction, would be less than significant.

The types of potentially hazardous substances and materials that would be used in association with the operation of the Project would include those typical of residential and commercial developments, such as small quantities of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance. However, such substances and materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Therefore, operation of the Project would not create a significant risk of exposure to hazardous materials for the public or the environment, including schools.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment caused in whole or in part from the project's exacerbation of existing environmental conditions?

Less Than Significant Impact. Government Code Section 65962.5, amended in 1992, requires the California Environmental Protection Agency (CalEPA) to develop and update annually the Cortese List, which is a list of hazardous waste sites and other contaminated sites. While Government Code Section 65962.5 refers to the preparation of a list, many changes have occurred related to web-based information access since 1992, and information regarding the Cortese List is now compiled on the websites of the Department of Toxic Substances Control (DTSC), the State Water Board, and CalEPA. The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions (such as a removal action) or extensive investigations are planned or have occurred. The database provides a listing of Federal Superfund sites [National Priorities List (NPL)]; State Response sites; Voluntary Cleanup sites; and School Cleanup sites. GeoTracker is the State Water Resources Control Board's data management system[38] for managing sites that impact groundwater, especially those that require groundwater cleanup [USTs, Department of Defense, Site Cleanup Program] as well as permitted facilities such as operating USTs and land disposal sites. CalEPA's database includes[39] lists of sites with active Cease and Desist Orders (CDO) or Cleanup and Abatement Orders (CAO) from the State Water Board.

As part of the Phase I ESA (Appendix F), a search was conducted for available federal, State, and local environmental database records for the Project Site, and where practicable, adjoining properties and nearby properties and surrounding areas within one mile from the Project Site. According to the review of environmental database records, the Project Site is not listed on any regulatory databases.

The regulatory review identified three sites within the Project vicinity that were listed on federal, state, and local environmental database records and present potential environmental concern. These sites are discussed below.

Arco #5200 located at 8004 Lankershim Boulevard

- Based on the conducted government records search, there is one Leaking Underground Storage Tank (LUST)/Spills site (Arco #5200) located at the northeastern corner of Lankershim Boulevard and Strathern Street, approximately 300 feet north of the western portion of the Project Site. The Arco #5200 site is listed on LUST/Spills databases with a "Case Closed"

[38] https://geotracker.waterboards.ca.gov/

[39] https://calepa.ca.gov/database-and-directories/

status. Therefore, the Phase I ESA determined that Project Site is not likely to have been impacted by operation of this facility.

Schiro's Motor Sales located at 7908 Lankershim Boulevard

- Schiro's Motor Sales located immediately to the south of the western portion of the Project Site is listed as a small quantity hazardous waste generator. Upon review of the information provided in the RCRA-Generator database, the Phase I ESA determined that the subsurface environment at the Project Site is not likely to have been impacted by operation of this facility.

North Hollywood Wellfield Area

As identified in the Phase I ESA, the Project Site is situated within the North Hollywood wellfield area of the San Fernando Groundwater Basin which has been classified by U.S. EPA as a National Priority List (NPL) Cleanup site. The historic background of the San Fernando Groundwater Basin NPL site is discussed below:

- In 1983, the California Legislature passed Assembly Bill (AB) 1803, which mandates a program for monitoring organic chemical contamination in wells used by large public water systems. California Department of Health Services (CDHS) implemented the program starting in January 1984. More than 300 drinking water wells in the San Gabriel Valley and the San Fernando Valley regions have been tested under the AB 1803 program. These wells were analyzed for volatile organics, trihalomethanes, triazines, semi-volatile organic compounds, lindane, and organochloride pesticides. Contamination of groundwater by trichloroethene (TCE) and tetrachloroethene (PCE) was found in many test wells within the San Gabriel Valley and the San Fernando Valley Groundwater Basins.

  After the contamination of groundwater by TCE and PCE in the San Gabriel Valley and the San Fernando Valley Basins was detected, in 1984, Federal EPA placed the San Gabriel Valley and the San Fernando Valley Groundwater Basins on EPA's National Priority List of hazardous waste sites, making them eligible for cleanup funding under the federal Superfund program.

  As identified in the Phase I ESA, the California Regional Water Quality Control Board - Los Angeles Region (RWQCB-LA) AB 1803 Follow-Up (or Well Investigation) Program data bases were searched, and the RWQCB-LA determined that past/present activities at the Project Site were/are unlikely to be responsible for the identified regional groundwater degradation and no subsurface investigations are deemed required based on the RWQCB-LA's assessment.

As such, none of the three sites listed in the Project vicinity would create a significant hazard to the public or the environment caused in whole or in part by the Project's exacerbation of existing environmental conditions. As determined in the Phase I ESA, the Project Site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and would not create a significant hazard to the public or the environment caused in whole or in part from the Project's exacerbation of existing environmental conditions. The Project would not contain uses that would exacerbate existing environment conditions.

Conclusion

Impacts with respect to hazardous materials lists, including Government Code Section 65962.2 would be less than significant and no mitigation measures are required.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. There are no private airstrips in the vicinity of the Project area. However, the Hollywood Burbank (Bob Hope) Airport, at 2627 North Hollywood Way in the City of Burbank, is approximately 1.4 miles southeast of the Project Site. The Project Site is also located 3.5 miles from the Whiteman Airport and 5.6 miles from the Van Nuys Airport. While the Project Site is within two miles of the Hollywood Burbank Airport, the Project Site is not located within the Hollywood Burbank Airport Planning Boundaries/Airport Influence Area (AIA) or subject to the Hollywood Burbank Land Use Planning Contours or height restrictions.[40] Given the distance of the Project Site to the Hollywood Burbank Airport and as the Project is outside the Airport's planning boundaries, noise contours or influence area, the Project would not result in an airport-related safety hazard for people residing or working in the Project area.

Conclusion

No impact would occur, and no mitigation is required.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The Project Site is located in an established urban area that is well served by an existing roadway network. As shown in the City of Los Angeles General Plan Safety Element, Critical Facilities and Lifeline Systems, Roscoe Boulevard and Laurel Canyon Boulevard are the closest Selected Disaster Routes that could be utilized during a disaster event.[41] These streets are also identified as Secondary Disaster Routes per the Los Angeles County Department of Public Works.[42] Construction activities are expected to be primarily contained within the Project Site boundaries. However, encroachments into the public right-of-way (e.g., sidewalk) adjacent to the Project Site along Strathern Street are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained in each direction on Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded. Therefore, Project construction would not result in inadequate emergency access.

Project operation would generate traffic in the Project Site vicinity and would result in some modifications to access to the Project Site from the streets that surround it. However, adequate

[40] http://planning.lacounty.gov/assets/upl/project/aluc_airport-burbank.pdf Accessed August 14, 2019

[41] City of Los Angeles General Plan Safety Element Exhibit H, Critical Facilities and Lifeline Systems, November *26,* 1996.

[42] https://dpw.lacounty.gov/dsg/DisasterRoutes/ Accessed October 9, 2018.

emergency access to the Project Site and to the surrounding area would continue to be provided. Future driveway and building configurations would comply with applicable fire code requirements for emergency evacuation, including proper emergency exits for patrons, employees, and residents. Project Site access and circulation plans would be subject to review and approval by the Los Angeles Fire Department (LAFD). For these reasons, construction and operation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Conclusion

Compliance with existing regulations would ensure that implementation of the Project would not impair or physically interfere with an adopted emergency response plan or with an emergency evacuation plan. Impacts related to emergency response plans and emergency evacuation plans are less than significant and no mitigation measures are required.

g. Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

No Impact. The Project Site is currently developed and located in a highly urbanized area and does not contain wildland features. Therefore, development of the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Conclusion

No impacts would occur in this regard and no mitigation is required.

Cumulative Impacts: Hazards and Hazardous Materials

Like the Project, many of the related projects would use, handle, store, and/or transport hazardous materials or require demolition of structures containing such materials. Such related projects would be required to use, store, remove and/or transport all potentially hazardous materials in accordance with the manufacturers' instructions and handle materials in accordance with federal, State, and local health and safety standards and regulations. Compliance with existing standards and regulations would ensure that the related projects would not result in significant impacts to the public or the environment through the routine transport, storage, use, or handling of hazardous materials, and that their development would not result in the release of existing hazardous materials such as ACBMs, LBPs, radon gas, or PCBs. Some of the related projects may be on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, each related project would be required to comply with existing Federal, State, and local regulations related to hazardous materials sites, including cleanup sites, and hazardous materials generators. Some of the related projects may also be constructed within Methane Zones, and accordingly would comply with existing City of Los Angeles regulations.

Some of the related projects may also include the use of hazardous materials within 0.25 miles of a school. However, related projects would be subject to environmental review to evaluate potential impacts from hazardous materials releases within 0.25 miles of a school, thereby reducing impacts to less than significant. Some of the related projects maybe within two miles of an airport land use

plan, however these related projects would be subject to environmental review to evaluate potential impacts from airport related hazards, thereby reducing impacts to less than significant. Some of the related projects may involve temporary construction encroachments into adjacent sidewalks or roadways, however in accordance with City of Los Angeles requirements, the related projects would be subject to environmental review to reduce impacts to less than significant.

Related projects are all located in highly urbanized areas, would not contain wildland features, and are not located adjacent to any wildland areas. Therefore, development of related projects would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Conclusion

The Project's contribution to cumulative hazards and hazardous materials impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

6.10 Hydrology and Water Quality

The following impact analysis pertaining to hydrology and water quality includes information on the existing and proposed topography/drainage and infrastructure for the Project Site prepared by Zeitouny & Associates. This is included in Appendix G of this SCEA.

Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant. The approximately 4.69-acre Project Site is currently developed with a commercial building, storage, and surface parking. The Project Site is relatively flat with a very mild slope to the south of less than 1 percent.

Construction

Construction of the Project would involve earthwork activities, including excavation and grading of the Project Site. During precipitation events in particular, construction activities associated with the Project have the potential to result in soil erosion particularly during grading and soil stockpiling, subsequent siltation, and conveyance of other pollutants into municipal storm drains.

With respect to erosion and sedimentation, Project construction would occur in accordance with City Building Code Chapter IX, which requires necessary permits, plans, plan checks, and inspections to avoid or reduce the effects of sedimentation and erosion. In addition, the Project would require approval of an erosion control plan and would be required to prepare a SWPPP in accordance with the NPDES permit. The SWPPP incorporates best-management practices (BMPs) in accordance with the City of Los Angeles' Best Management Practices Handbook, Part A - Construction Activities to control erosion including grading and dust control measures.

For any grading projects occurring during the rainy season (October 1st to April 14th), a Wet Weather Erosion Control Plan (WWECP) is required pursuant to the City of Los Angeles Board of

Public Works (BPW).[43] The WWECP addresses water pollution control from grading activities during the wet weather season by specifying the use of appropriate temporary erosion and sediment control BMPs. Compliance with these regulatory requirements would ensure that construction impacts to water quality during the rainy season and storm events occurring outside the rainy season would be less than significant.

Operation

The Project will be designed to comply with the City of Los Angeles's LID design standards. The Geotechnical Report prepared for the Project indicates groundwater was not encountered within the deepest exploratory boring at a depth of approximately 50 1/2 feet below the existing grade, which is deeper than the proposed 25 feet of excavation depth of the Project. As such, a groundwater dewatering for construction or operation is not anticipated for the Project.

To facilitate compliance with the City's LID design standards, the Project's BMPs would include development of a dry well for stormwater runoff. A dry well is a trench or basin completely filled with coarse media, such as angular gravel, to create a porous layer for infiltrating runoff.

The design of structural BMPs would be in accordance with the City of Los Angeles Development Best Management Practices Handbook, Part B - Planning Activities,[44] which summarizes the City's review and permitting process, identifies stormwater mitigation measures, and references source and treatment control BMP information. The final selection of any BMPs would be made through coordination with the City of Los Angeles.

Conclusion

Compliance with the applicable groundwater regulatory requirements would ensure impacts to surface or groundwater quality would be less than significant. No mitigation measures are required.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The Project Site is located in the San Fernando Valley Groundwater Basin.[45] The basin is bounded on the north and northwest by the Santa Susana Mountains, on the north and northeast by the San Gabriel Mountains, on the east by the San Rafael Hills, on the south by the Santa Monica Mountains and Chalk Hills, and on the west by the Simi Hills. The valley is drained by the Los Angeles River and its tributaries.[46]

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[43] City of Los Angeles Department of Public Works Bureau of Contract Administration, Wet Weather Erosion Control Plan. https://bca.lacity.org/uploads/safety/WWEC%20Manual%20for%20website%202009.pdf Accessed August 19, 2019

[44] City of Los Angeles Planning and Development Handbook for Low Impact Development. https://www.lastormwater.org/wp-content/files_mf/lidmanualfinal.pdf. Accessed August 19, 2019

[45] https://gis.water.ca.gov/app/bbat/ Accessed August 19, 2019

[46] https://water.ca.gov/LegacyFiles/groundwater/bulletin118/basindescriptions/4-12.pdf Accessed August 19, 2019

The Project Site is located in a highly urbanized area of Los Angeles and is currently developed with two commercial/office buildings, storage areas, and a surface parking lot. As such, the Project Site does not currently provide a substantial opportunity for recharge of groundwater. The Geotechnical Reports prepared for the Project indicates groundwater was not encountered within the deepest exploratory boring at a depth of approximately 50 1/2 feet below the existing grade, which is deeper than the proposed 25 feet of excavation depth of the Project. As such, groundwater dewatering for construction or operation of the Project is not anticipated.

Construction

As discussed above, during construction, groundwater is not expected to be encountered during construction. The Project would not decrease groundwater supplies or interfere substantially with groundwater recharge, such that the Project would impede sustainable groundwater management of the basin.

Operation

Groundwater dewatering is not anticipated during operation of the Project. While operation of the Project would increase the amount of impervious surface area on the Project Site from 4.7 percent under existing conditions to 20 percent after development is completed, due to the size of the Project Site, this would create a small increase in the opportunity for potential increases in recharge. The Project would also include a dry well for stormwater runoff that would meet the City of Los Angeles' stormwater capture and reuse criteria and LID design standards. Therefore, the Project's operation would not substantially deplete groundwater supplies nor interfere with groundwater recharge. With implementation of City of Los Angeles LID requirements, including those described in the discussion under Item 6.10(a), above, impacts with respect to the decrease of the groundwater supplies, or interference with groundwater recharge would be less than significant.

Conclusion

With compliance with existing regulatory compliance measures, the Project's construction activities and operations would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project would impede sustainable groundwater management of the basin. Impacts on groundwater would be less than significant, and no mitigation measures are required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site;

Less Than Significant Impact. Stormwater runs easterly on Strathern Street and southerly on North Lankershim Boulevard. A storm drain inlet is located at the southeast corner of Strathern Street and North Lankershim Boulevard. In addition, there is a storm drain culvert next to the alley at 11650 Strathern Street, east of the Project Site. The existing Project Site is 4.7 percent

impervious, resulting in a drainage volume of 2,531 cf for an 85th Percentile storm.[47] Based on a 50-year storm event, the existing peak discharge is 6.6 cf per second.[48]

The Project would have an impervious area percentage of 20 percent, which represents an increase of 15.3 percent from existing conditions. The associated drainage volume would be 4,782 cf. The 50-year storm event peak discharge would remain at 6.6 cf per second.[49] As discussed in Item 6.10(a), above, the Project would be designed to comply with the City of Los Angeles's LID design standard. The proposed stormwater BMPs would include development of a dry well for stormwater runoff.

Project construction would comply with applicable NPDES and City requirements including those requiring the preparation of a Project-specific SWPPP. Pursuant to the City's LID Ordinance, the Project would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's BMPs. As described earlier, proposed stormwater BMPs would include development of a dry well for stormwater runoff that would meet the City of Los Angeles' stormwater capture and reuse criteria and LID design standards.

Conclusion

The Project would result in less than significant impacts associated substantial erosion or siltation on-or off-site and no mitigation is required.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. The City Los Angeles Bureau of Engineering requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain, and street flow system accommodate flow from a 50-year storm event. In addition, the Project would include appropriate on-site drainage improvements to accommodate anticipated stormwater flows. Similar to existing conditions, operation of the Project's uses would discharge pollutant constituents commonly associated with urban uses into surface water runoff. However, required water quality control measures would be implemented as described in Item 6.10(a). Therefore, the Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, result in on- or off-site flooding, or provide substantial additional sources of polluted runoff.

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47 A percentile rainfall event represents a rainfall amount which a certain percent of all rainfall events for the period of record do not exceed. For example, the 85th percentile rainfall event is defined as the measured rainfall depth accumulated over a 24-hour period, for the period of record, which ranks as the 85th percentile rainfall depth based on the range of all daily event occurrences during this period.

48 Utility Narrative. Zeitouny & Associates. September 2019.

49 Utility Narrative. Zeitouny & Associates. September 2019.

Conclusion

Impacts would be less than significant, and no mitigation measures are required.

iv. Impede or redirect flood flows?

No Impact. According to the City of Los Angeles General Plan Safety Element, the Project Site is not located with a 100-Year or 500-Year flood plain. The Project is a mixed-use project that would not redirect or cause impediment or redirection of flood flows.

Conclusion

No impact would occur and no mitigation measures are required.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. According to the City of Los Angeles General Plan Safety Element, the Project Site is not located with a 100-Year or 500-Year flood plain.[50] The Project Site is located approximately 15 miles northeast of the Pacific Ocean and is not shown to be located within a tsunami hazard area Tsunami Inundation Zone.[51] A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank.[52]

The Project is located in a potential dam inundation area related to the Hansen Dam and Hansen Recreational area, located three miles north of the Project Site and surrounded by intervening development.[53] Dam failure is defined as the structural collapse of a dam that releases the water stored in a reservoir behind the dam. A dam failure is usually the result of the age of the structure, inadequate spillway capacity, or structural damage caused by an earthquake or flood.[54]

The Federal Energy Regulatory Commission (FERC) cooperates with a large number of federal and state agencies to ensure and promote dam safety. More than 3,000 dams are part of regulated hydroelectric projects in the FERC program. FERC inspects hydroelectric projects on an unscheduled basis to investigate the following: 1) Potential dam safety problems; 2) Complaints about constructing and operating a project; 3) Safety concerns related to natural disasters; and 4) Issues concerning compliance with the terms and conditions of a license.[55] Every five years, an independent engineer approved by the FERC must inspect and evaluate projects with dams higher than 32.8 feet (10 meters) or with a total storage capacity of more than 2,000 acre-feet, which

[50] City of Los Angeles General Plan, Safety Element Exhibit F, 100-Year & 500-Year Floodplains, March 1994.

[51] http://zimas.lacity.org/

[52] USGS Seismic Seiches. https://earthquake.usgs.gov/learn/topics/seiche.php.

[53] City of Los Angeles General Plan, Safety Element Exhibit F, 100-Year & 500-Year Floodplains, March 1994.

[54] City of Los Angeles Local Hazard Mitigation Plan, June 2017. https://emergency.lacity.org/sites/g/files/wph496/f/2017_LA_HMP_Public%20Review%20Draft_2017-06-15_reduced_Part1.pdf Accessed September 2019.

[55] City of Los Angeles Local Hazard Mitigation Plan, June 2017. https://emergency.lacity.org/sites/g/files/wph496/f/2017_LA_HMP_Public%20Review%20Draft_2017-06-15_reduced_Part1.pdf Accessed September 2019.

includes the Hansen Dam, thereby reducing the risk of dam failure. As such, the probability of dam failure is low.

As the Project Site is not located in a 100-Year or 500-Year flood plain and is not in a tsunami hazard area and the probability of flooding or seiche hazards related to failure of the Hansen Dam, located three miles north of the Project Site, is low, potential impacts related to the release of pollutants due to project inundation would be less than significant.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. Under the California Water Code, the State of California is divided into nine regional water quality control boards (RWQCBs), which govern the implementation and enforcement of the California Water Code and the Clean Water Act. The Project Site is located within Region 4, also known as the Los Angeles Region (LARWQCB). The LARWQCB Water Quality Control Plan: *Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, September 11, 2014, is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations.

Under the NPDES permit enforced by the LARWQCB, all existing and future municipal and industrial discharges to surface waters within the City of Los Angeles are subject to applicable local, State and/or federal regulations. The Project must comply with all provisions of the NPDES program and other applicable waste discharge requirements (WDRs), as enforced by the LARWQCB.

The Project would comply with applicable NPDES and City requirements, which would include the use of BMPs during construction and operation of the Project as detailed in a SWPPP and in the City's LID ordinance. Project construction would occur in accordance with City Building Code Chapter IX, which requires necessary permits, plans, plan checks, and inspections to avoid or reduce the effects of sedimentation and erosion. In addition, the Project would require approval of an erosion control plan and would be required to prepare a SWPPP in accordance with the NPDES permit. The SWPPP incorporates best-management practices (BMPs) in accordance with the City of Los Angeles' Best Management Practices Handbook, Part A - Construction Activities to control erosion including grading and dust control measures.

Conclusion

The Project would not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant and no mitigation measures are required.

Cumulative Impacts: Hydrology and Water Quality

With respect to water quality standards and hydrology, the related projects could potentially increase the volume of stormwater runoff and contribute to pollutant loading in stormwater runoff within the local vicinity of the Project Site. Pursuant to the City's LID Ordinance, however, related projects would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's LID BMPs, through one or more of the City's preferred LID improvements: on-site infiltration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible.

Further, the related projects would be subject to the NPDES permit requirements for both construction and operation. Each project greater than one-acre in size would be required to develop a SWPPP and would be evaluated individually to determine appropriate BMPs and treatment measures to avoid or minimize impacts to water quality. Smaller projects would be minor infill projects with drainage characteristics similar to existing conditions, with negligible impacts. In addition, the City of Los Angeles Department of Public Works reviews all construction projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available. With compliance with regulatory measures, impacts of the Project and related projects would not be cumulatively considerable.

The cumulative impacts context for flood hazards is the corporate boundary of City of Los Angeles, which provides emergency response services for flood events and participates in the National Flood Insurance Program (NFIP). The NFIP is a Federal program enabling property owners in participating communities to purchase protection against property losses due to flooding.

The impacts of potential flooding on the Project are not environmental impacts of the Project. In addition, all related projects are subject to restrictions and requirements as part of the City's existing permitting process and a detailed review of the City of Los Angeles General Plan Safety Element would be conducted as part of the plan check process. Related projects within the 100-year flood plain or floodway would be required to implement appropriate flood plain management measures in the design of new buildings. Compliance with these existing regulatory requirements would ensure that any related projects would not place housing within a flood hazard area without incorporating proper measures. The Project, in conjunction with the related projects, would not exacerbate the existing conditions related to, or risks associated with, flooding, and therefore impacts related to flood hazards are not cumulatively considerable.

With respect to drainage capacity, the Project would comply with applicable NPDES and City requirements, which would include the use of BMPs during construction and operation of the Project as detailed in a SWPPP and in the City's LID ordinance. In addition, the Project would

include development of a dry well for stormwater runoff which is a trench/basin completely filled with coarse materials to create a porous layer for infiltrating runoff.

The Los Angeles Department Public Works would review the Project to ensure that sufficient local and regional drainage capacity is available. The Project would not be located in a 100-Year or 500-Year flood plain. Flooding or seiche hazards related to failure of the Hansen Dam, located three miles north of the Project Site, is low and is not a cumulative impact of the Project and related projects, and such impacts would be less than significant.

Conclusion

The Project's contribution to cumulative impacts to hydrology and water quality and flooding hazards would not be cumulatively considerable. Impacts would be less than significant and no mitigation measures are required.

6.11 Land Use and Planning

Would the project:

a. Physically divide an established community?

No Impact. The Project Site is currently developed with commercial and office buildings, storage areas and surface parking. The Project Site vicinity is highly urbanized and generally built out. The local vicinity is characterized by a blend of commercial, residential, industrial, office, and school uses. The Project would provide a new mixed-use development that would include residential uses and ground level commercial uses. As such, the Project would be an infill project providing uses in keeping with the mixed-use character of the surrounding area. Given the type of uses in the Project Site vicinity, and the infill character of the Project, it would not physically divide an established community. The Project would not disrupt or divide an established community through a change in street or land use patterns on surrounding streets.

Thus, given the existing mix of uses in the Project Site vicinity and the location of the Project Site within an existing developed area, the Project would not physically divide, disrupt, or isolate an established community.

Conclusion

No impact would occur and no mitigation measures are required.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. As discussed below, the Project would be substantially consistent with all of the applicable plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect associated with development of the Project Sites. Therefore, Project impacts related to land use and planning would be less than significant and no mitigation measures are required.

Southern California Association of Governments

SCAG is the MPO for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. As the federally-designated MPO, SCAG is mandated to research and create plans for transportation, growth management, hazardous waste management, and air quality. Applicable SCAG publications are discussed below.

SCAG Regional Comprehensive Plan

SCAG has prepared the 2008 Regional Comprehensive Plan (2008 RCP) in response to SCAG's Regional Council directive in its 2002 Strategic Plan to define solutions to interrelated housing, traffic, water, air quality, and other regional challenges. The 2008 RCP is an advisory document that describes future conditions if current trends continue, defines a vision for a healthier region, and recommends an Action Plan with a target year of 2035. The 2008 RCP may be voluntarily used by local jurisdictions in developing local plans and addressing local issues of regional significance. The plan includes nine chapters addressing land use and housing, transportation, air quality, energy, open space, water, solid waste, economy, and security and emergency preparedness. The action plans contained therein provide a series of recommended near-term policies that developers and key stakeholders should consider for implementation, as well as potential policies for consideration by local jurisdictions and agencies when conducting project review.

The 2008 RCP replaced the Regional Comprehensive Plan and Guide (RCPG) for use in SCAG's Intergovernmental Review (IGR) process. SCAG's Community, Economic and Human Development Committee and the Regional Council took action to accept the 2008 RCP, which now serves as an advisory document for local governments in the SCAG region for their information and voluntary use in developing local plans and addressing local issues of regional significance. However, as indicated by SCAG, because of its advisory nature, the 2008 RCP is not used in SCAG's IGR process. Rather, SCAG reviews new projects based on consistency with the 2016-2040 RTP/SCS (discussed below).

SCAG 2016-2040 RTP/SCS

On September 30, 2008, SB 375 was passed to help achieve AB 32 goals related to the reduction of greenhouse gases through regulation of cars and light trucks. SB 375 aligns three policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve GHG emissions reductions targets for the transportation sector. It establishes a process for CARB to develop GHG emissions reductions targets for each region (as opposed to individual local governments or households). SB 375 also requires MPOs to prepare an SCS within the RTP that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions.

On April 7, 2016, the Regional Council of SCAG adopted the 2016-2040 RTP/SCS. For the past three decades, SCAG has prepared RTPs with the primary goal of increasing mobility for the region's residents and visitors. The 2016-2040 RTP/SCS includes a strong commitment to reduce

emissions from transportation sources to comply with SB 375, improve public health, and meet the NAAQS as set forth by the Federal Clean Air Act. As such, the 2016-2040 RTP/SCS contains a regional commitment for the broad deployment of zero- and near-zero-emission transportation technologies in the 2016-2040 time-frame and clear steps to move toward this objective. This is especially critical for the goods movement system. The development of a world-class, zero- or near-zero-emission freight transportation system is necessary to maintain economic growth in the region, to sustain quality of life, and to meet federal air quality requirements. The 2016-2040 RTP/SCS puts forth an aggressive strategy for technology development and deployment to achieve this objective. This strategy will have many co-benefits, including energy security, cost certainty, increased public support for infrastructure, GHG emissions reduction, and economic development.

The 2016-2040 RTP/SCS provides a blueprint for improving quality of life for residents by providing choices for where they will live, work, and play, and how they will move around. It is designed to promote safe, secure, and efficient transportation systems to provide improved access to opportunities, such as jobs, education, and healthcare. Its emphasis on transit and active transportation is designed to allow residents to lead a healthier, more active lifestyle. Its goal is to create jobs, ensure the region's economic competitiveness through strategic investments in the goods movement system, and improve environmental and health outcomes for its residents by 2040. More importantly, the 2016-2040 RTP/SCS is also designed to preserve what makes the region special, including stable and successful neighborhoods and an array of open spaces for future generations.

The 2016-2040 RTP/SCS also includes examples of measures that could reduce impacts from planning, development, and transportation. It notes, however, that the example measures are not intended to serve as any kind of checklist to be used on a project-specific basis. Since every project and project setting is different, project-specific analysis is needed to identify applicable and feasible mitigation. These mitigation measures are particularly important where streamlining mechanisms under SB 375 are utilized.

A detailed discussion of the Project's consistency with the 2016-2040 RTP/SCS is included in Section 3, Sustainable Communities Environmental Assessment Criteria. As discussed there, the Project would be substantially consistent with the applicable 2016-2040 RTP/SCS policies and with the land use designation, density, and building intensity identified in the 2016-2040 RTP/SCS for the area in which the Project Sites are located. Therefore, no significant impacts regarding consistency with this plan would occur.

The Project would be substantially consistent with 2016 RTP/SCS goals to improve regional economic development, maximize mobility and accessibility for all people and goods in the region, ensure travel safety and reliability, preserve and ensure a sustainable regional transportation system, maximize the productivity of the transportation system, protect the environment, encourage energy efficiency, and facilitate the use of alternative modes of transportation. In addition, as discussed in Item 6.7, *Greenhouse Gas Emissions*, the Project would accommodate increases in population, households, employment, and travel demand by implementing smart land use strategies. The Project Site is an infill location close to jobs, off-site housing, and services, and is in close proximity to existing and future public transit stops. Also, as discussed in Item 6.13,

Population and Housing, the Project's contributions to growth fall within the range of growth accounted for in the SCAG projections that are used for future planning activities and provision of services. These projections include development that is anticipated over a horizon period that extends to 2040. The projections are revised on four-year intervals so as to stay current with current growth trends and changes in land use activity. Changes to planning and zoning designations can be incorporated in timely fashions so long as the growth does not exceed the amount anticipated within the service timelines. Growth at specific sites may vary while the overall growth patterns are sufficient for planning purposes.

Los Angeles General Plan Framework Element

Adopted in December 1996, and readopted in August 2001, the City of Los Angeles General Plan Framework Element (General Plan Framework) establishes the conceptual basis for the City's General Plan.[56] The General Plan Framework sets forth a citywide comprehensive long-range growth strategy and defines Citywide policies regarding land use, housing, urban form, neighborhood design, open space and conservation, economic development, transportation, infrastructure, and public services. General Plan Framework land use policies are further guided at the community level through community plans and specific plans. The General Plan Framework sets forth a conceptual relationship between land use and transportation and encourages new development to be developed near transit. The Framework Element also calls for commercial development along the City's arterial corridors to be intensified with new projects that integrate commercial and residential uses.

As discussed in greater detail below in Table 6-16, *Comparison of the Project to the Applicable Land Use Policies of the Framework Element*, the Project would be substantially consistent with applicable objectives, goals, and policies, of the General Plan Framework. In particular, the Project would be substantially consistent the Framework Element as follows:

- The Project would be substantially consistent with objectives of Chapter 4 on Housing by providing 432 new dwelling units in a mix of unit sizes (one-bedroom, two-bedroom, and three-bedroom units) and affordability levels. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or Very Low Income Households. Five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households. In addition, the Project would be substantially consistent with the multiple objectives of locating new multifamily housing in close proximity to transit, and to provide adequate buffers between higher intensity uses and adjacent residential neighborhoods. The Project's 432 units, would create a notable increase in housing stock, including 48 affordable housing units.

[56] City of Los Angeles Framework Element of the General Plan. https://planning.lacity.org/cwd/framwk/fwhome0.htm, Accessed November 21, 2018.

- The Project would provide a mix of uses in proximity to a broad range of land uses and transit options within walking distance, which would stimulate non-vehicular modes of travel, including pedestrian and bicycle activity. The Project would be integrated with the surrounding area through new ground level commercial uses and amenities, including new street trees, and landscaping.

- The Project Site is located within a Los Angeles State Enterprise Zone and a State-identified TPA, and would meet the objectives of the land use, economic and housing policies of the General Plan Framework to provide a diversity of uses, including restaurants, commercial, residential uses (including affordable housing), in close proximity to transit. The Project's mixed uses would support the General Plan Framework's land use, economic and housing goals to enhance urban lifestyles with proximity to services, retail, and transit.

Because the Project would support and not conflict with the General Plan Framework land use goals, policies and objectives as shown above and in Table 6-16, impacts with respect to the Framework would be less than significant.

TABLE 6-16
COMPARISON OF THE PROJECT TO THE APPLICABLE LAND USE POLICIES OF THE FRAMEWORK ELEMENT

Policy	Analysis of Project Consistency
Land Use Chapter	
Goal 3A: A physically balanced distribution of land uses that contributes towards and facilitates the City's long-term fiscal and economic viability; revitalization of economically depressed areas, preservation of existing residential neighborhoods, equitable distribution of public resources, conservation of natural resources, provision of adequate infrastructure and public services, reduction of traffic congestion and improvement of air quality, enhancement of recreation and open space opportunities, assurance of environmental justice and a healthful living environment, and achievement of the vision for a more livable city.	**Consistent.** While it is the City's responsibility to meet this goal in general, the Project's introduction of new residential and commercial uses would provide new services and employment, as well and new housing opportunities that would serve a variety of income levels. As no housing currently exists on the Project Site, the Project would provide a substantial increase in new housing units in the vicinity. Specifically, the Project would provide 432 residential units and of these units, 48 units, or approximately 11 percent of the total number of dwelling units, would be designated as restricted affordable housing for Extremely Low Income and Very Low Income households. Project vehicle trips would be reduced by including a mixture of land use on the Project Site and locating the Project in an urban, mixed-use area near surrounding commercial, residential, office and industrial uses. Furthermore, residents, visitors, and employees would have ready access to multiple nearby transit options which include the Metrolink Sun Valley Station and multiple Metro bus lines.
Objective 3.2: Provide for the spatial distribution of development that promotes an improved quality of life by facilitating a reduction of vehicular trips, VMT, and air pollution.	**Consistent.** While it is the City's responsibility to meet this objective in general, the Project would be developed at an urban, infill site in close proximity to existing residential uses, businesses, services, and numerous public transportation options. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle

Policy	Analysis of Project Consistency
	trips, as identified in the TIS prepared for the proposed Project.
Objective 3.4: Encourage new multifamily residential, retail commercial, and office development in the City's neighborhood districts, community, regional, and downtown centers as well as along primary transit corridors/boulevards, while at the same time conserving existing neighborhoods and related districts.	**Consistent.** While it is the City's responsibility to meet this objective in general, the Project would provide new residents, jobs and services within close proximity of pedestrian, roadway and transit networks. The new residential population would have access to commercial development on-site as well as a considerable amount of retail, restaurant, and public services activities within walking distance and via bus and rail services.
Housing	
Goal 4A: An equitable distribution of housing opportunities by type and cost accessible to all residents of the City. **Objective 4.1:** Plan the capacity for and develop incentives to encourage production of an adequate supply of housing units of various types within each City subregion to meet the projected housing needs by income level of the future population to the year 2010. **Objective 4.2:** Encourage the location of new multifamily housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods.	**Consistent.** No housing is currently located on the Project Site. The Project would provide 432 new housing units to assist in meeting housing needs established in the periodically updated SCAG Regional Housing Needs Assessment (RHNA) as implemented through the Housing Element of the General Plan. The new units would include a range of sizes from one bedroom to three bedrooms. Of the 432 units, 48 units would be restricted for Extremely Low Income and Very Low Income households. Therefore, the Project would provide a notable increase in housing stock including housing for Extremely Low Income and Very Low Income residents in the City. The Project's residential units would be provided in close proximity to several transit options. The Project would be located within a dense mixed use area, with similar uses as the Project. The Project would provide new residents, jobs and services close to pedestrian, roadway and transit networks. The Project would create a buffer between the higher density, mixed-use character along Lankershim Boulevard and lower density single-family homes to the east and has sensitively considered the neighborhood context in determining the massing design of its various components. Along the active, main corridor of Lankershim Boulevard, the Project would focus more active uses; including ground floor commercial uses, the residential lobby and pedestrian and vehicle entrances into the Project. Facing east towards single-family residences, only residential uses are planned, and no commercial uses or signage would be located in this area. Also, along this frontage, the Project would not provide direct pedestrian or vehicular access from Blythe Street into the Project Site. The Project would include a landscaped screening wall along the perimeter facing residential properties adjacent to the Project.
Economic Development	
Objective 7.6: Maintain a viable retail base in the City to address changing resident and business shopping needs.	**Consistent.** While it is the City's responsibility to meet this objective in general, the Project would include 22,000 sf of commercial uses open to the public that would complement nearby commercial, office, service, industrial, and residential uses.

Policy	Analysis of Project Consistency
Policy 7.2.2: Concentrate commercial development entitlements in areas best able to support them, including community and regional centers, transit stations, and mixed-use corridors. This concentration prevents commercial development from encroaching on existing residential neighborhoods.	**Consistent.** While it is the City's responsibility to meet this policy in general, the Project would provide new mixed-use development in an area served by multiple bus lines and is close to the Metrolink Sun Valley Station. Commercial uses would also be oriented to public streets, and would not be oriented towards existing residential neighborhoods.

Source: ICF, 2019

Sun Valley-La Tuna Canyon Community Plan

Adopted in 1999 and last amended in 2016, the Sun Valley-La Tuna Canyon Community Plan Community Plan identifies and established goals and polices for land use within the Sun Valley-La Tuna Canyon Community Plan area.[57] As shown in Table 6-17, *Comparison of the Project to the Applicable Land Use Policies of the Sun Valley-La Tuna Canyon Community Plan*, the Project would be consistent with applicable objectives and policies of the Sun Valley-La Tuna Canyon Community Plan Community Plan. In particular, the Project would be consistent with the Sun Valley-La Tuna Canyon Community Plan Community Plan as follows:

- The Project would be substantially consistent with goals and policies that aim to provide a balance of development that promotes an improved quality of life by facilitating a reduction of vehicular trips and air pollution. The Project's mixture of commercial and residential development would be developed at an infill location in close proximity to transit and surrounding residential, commercial, services and public facilities, which would help reduce vehicle trips and trip lengths, and associated GHG and air pollutant emissions, generated by the Project.

- The Project would provide neighborhood-serving commercial uses that would front North Lankershim Boulevard, an existing mixed-use commercial corridor. The new on-site commercial development could be readily accessed by the Project's new residential population without the need for vehicular travel, and by the surrounding neighborhood via walking, bicycling or bus or rail services. The Project would be substantially consistent with goals and objectives that aim to locate neighborhood-serving commercial facilities along commercial corridors and near existing neighborhoods.

- The Project would include 432 new housing units, including one-bedroom, two-bedroom, and three-bedroom units, with substantial resident amenities. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or Very Low Income Households. The Project would be substantially consistent with objectives and policies that aim to provide housing of types, sizes, and densities required to satisfy the varying needs and desires of all segments of the community's population.

[57] Sun Valley-La Tuna Canyon Community Plan, https://planning.lacity.org/complan/pdf/svycptxt.pdf Accessed August 15, 2019

Because the Project would not conflict with the Sun Valley-La Tuna Canyon Community Plan goals, policies and objectives as shown above and below in Table 6-17, impacts with respect to consistency with the Sun Valley-La Tuna Canyon Community Plan Community Plan would be less than significant.

TABLE 6-17
COMPARISON OF THE PROJECT TO THE APPLICABLE LAND USE POLICIES OF THE SUN VALLEY-LA TUNA CANYON COMMUNITY PLAN

Goal/ Policy/Objective	Analysis of Project Consistency
Residential	
Objective 1-1: To provide for the preservation of existing housing and for the development of new housing to meet the diverse economic and physical needs of the existing residents and projected population of the Plan area to the year 2010.	**Consistent.** The Project would provide a range of new housing units that would be affordable to a number of income levels. The Project would include 432 new housing units, including one-bedroom, two-bedroom, and three-bedroom units, with substantial resident amenities. The Project would include market rate units and 48 units affordable for Extremely Low Income or Very Low Income households.
Objective 1-2: To locate new housing in a manner which reduces vehicular trips and which increases accessibility to services and facilities.	**Consistent.** The Project would be developed at an urban, infill Project Site in close proximity to existing residential uses, businesses, services, and numerous public transportation options. The new residential population would have access to commercial development onsite as well as retail, restaurant, and other services within walking distance. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips.
Objective 1-5: To promote and insure the provision of adequate housing for all persons regardless of income, age, or ethnic background.	**Consistent:** The Project would include 432 new housing units, including one-bedroom, two-bedroom, and three-bedroom units, with substantial resident amenities. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or Very Low Income Households.
Commercial	
Objective 2-1: Preserve and strengthen viable commercial development and provide additional opportunities for new commercial development and services within existing commercial areas.	**Consistent.** The Project would be a mixed-use development with ground floor commercial uses and amenities, and landscaping. The Project is located in an urban, mixed-use area that has numerous established commercial businesses. The Project would provide new residents, jobs and services close to pedestrian, roadway and transit networks. The new residential population and surrounding neighborhood would have access to the on-site commercial development well as surrounding commercial uses and services uses within walking distance and via bus and rail services.
Policy 2-1.1: New commercial uses should be located in existing established commercial areas or shopping centers.	

Source: ICF, 2019.

Los Angeles General Plan Housing Element

The Housing Element of the General Plan is prepared and updated pursuant to State law and provides planning guidance in meeting the housing needs identified in SCAG's RHNA. The

Housing Element identifies the City's housing conditions and needs, establishes the goals, objectives, and policies that are the foundation of the City's housing and growth strategy, and provides the array of programs the City intends to implement to create sustainable, mixed-income neighborhoods. The 2013–2021 Housing Element, an update to the previous 2006–2014 Housing Element that is based on the updated 2012 RHNA, was adopted by the City Council on December 3, 2013. Policies of note include Policy 1.1.3, which states the City should "[f]acilitate new construction and preservation of a range of housing types that address the particular needs of the city's households." Also, Policy 1.1.4 states that the City should "[e]xpand opportunities for residential development, particularly in designated Centers, Transit Oriented Districts and along Mixed-Use Boulevards." The Housing Element carries forward the goals of the Framework Element Housing chapter to encourage infill development and increase density in higher-intensity commercial and mixed-use districts, centers and boulevards, and in proximity to transit.

The Housing Element encourages new construction of a range of different housing types that address the needs of the City's households. Chapter 1, Housing Needs Assessment, identifies the City's share of the housing needs established in the RHNA. In particular, Table 1.29, City of Los Angeles Regional Housing Needs Assessment Allocation, indicates that the City's needs assessment allocation includes 82,002 housing units of which 35,412 units, or 43.2 percent, would be for above moderate-income households.

The remaining 56.8 percent of the needed housing units consist of 13,728 moderate-income units (16.8 percent), 12,435 low-income units (15.2 percent), 10,213 very-low-income units (12.5 percent), and 10,213 extremely-low-income units (12.5 percent).

The Project is a mixed-income project that would offer a mixture of one-bedroom, two-bedroom, and three-bedroom units. The Project would provide 432 new residential units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low Income Households or Very Low Income Households. Five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households. Thus, the Project would support meeting the City's RHNA allocations by contributing to both the overall supply of housing as well as contributing to the availability of housing for Extremely Low Income and Very Low Income households. Further, the Project Site would provide these new units close to multiple transit options that serve the greater Los Angeles region.

Therefore, the Project would be substantially consistent with the Los Angeles General Plan Housing Element and impacts would be less than significant.

City of Los Angeles Mobility Plan 2035

Mobility Plan 2035 (Mobility Plan),[58] which was adopted in January 2016, is a comprehensive update of the Transportation Element, which in part includes the City's classification system for roadways. The Mobility Plan provides revised street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions, including transit routes and stops, pedestrian environments, bicycle routes, building design, and site access. Various modes of travel are encouraged by the Mobility Plan, including walking, biking and using public transit.

Key objectives within the Mobility Plan are as follows:

- **Policy 2.3:** Recognize walking as a component of every trip, and ensure high-quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.
- **Policy 3.1:** Recognize all modes of travel, including pedestrian, bicycle, transit and vehicular modes - including goods movement - as integral components of the City's transportation system.
- **Policy 3.3:** Promote equitable land use decisions that result in fewer vehicle trips by providing greater proximity and access to jobs, destinations, and other neighborhood services.
- **Policy 3.4:** Provide all residents, workers and visitors with affordable, efficient, convenient and attractive transit services.
- **Policy 3.8:** Provide bicyclists with convenient, secure and well-maintained bicycle parking facilities.
- **Policy 4.13:** Balance on-street and off-street parking supply with other transportation and land use objectives.
- **Policy 5.2:** Support ways to reduce vehicle miles traveled (VMT) per capita.
- **Policy 5.4:** Continue to encourage the adoption of low and zero emission fuel sources, new mobility technologies, and supporting infrastructure.

The Project would support the Mobility Plan policies listed above as it promotes a balanced transportation system by locating a mixed-use, mixed-income project on its urban infill Project Site located in an area that has an existing mix of commercial, residential, office, and educational uses. The Project Site is also located within a TPA and is within close proximity of multiple bus lines and is 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Project encourages pedestrian and bicycle activity by locating new

[58] City of Los Angeles Mobility Plan 2035 An Element of the General Plan, https://planning.lacity.org/documents/policy/mobilityplnmemo.pdf

residents, employees and visitors in close proximity to public transit and services. Project residents, employees and visitors would have the option to walk, ride bicycles or use public transit to access jobs and services in the surrounding neighborhood.

The Project would provide bicycle parking for residential and commercial uses, adhering to the Code requirements for bicycle parking. As such, the Project would provide convenient, secure and well-maintained bicycle parking facilities that would encourage the use of bicycles by Project residents and visitors and a reduction in the use of vehicular travel.

Because the Project would be consistent with these applicable policies of the Mobility Plan, impacts would be less than significant. Additional discussion of the Mobility Plan is provided in Item 6.17, *Transportation*.

City of Los Angeles General Plan Noise Element (1999)

The City of Los Angeles General Plan Noise Element references the City of Los Angeles' noise standards, which are contained in Los Angeles Municipal Code Section 111. The Noise Element addressed noise issues, noise sources, and contains noises guidelines, mitigation strategies and regulations. The Project's compliance with the Noise Element is described in Item 6.13, Noise of this SCEA. Based on the information contained in item 6.13, the Project would be consistent with the applicable policies of the Noise Element, and impacts would be less than significant.

Do Real Planning

The City Planning Commission's Do Real Planning document includes fourteen guidelines intended to set the City on a course toward sustainability. Many of the guidelines address procedures for the operation of the Department of City Planning or issues addressing specific settings and types of projects that are different from the Project. However, of the fourteen guidelines, several address planning concepts that are relevant to the Project. Guidelines of particular note are those that pertain to location of land uses and density (Guidelines 3 and 6), walkability/site design/parking location (Guidelines 1, 2, 9, and 12), improvement of housing stock for every income (Guideline 5), and green design with abundant landscaping (Guidelines 7 and 8). Guideline 1, Demand a Walkable City, has led to the development of the Walkability Checklist, discussed below. Guidelines that would be applicable to the Project include the following:

- Guideline 2, *Offer Basic Design Standards*, Guideline 8, *Landscape in Abundance*, and Guideline 9, *Arrest Visual Blight*, apply to the appearance of the City. The Project would replace the existing office and commercial buildings with a new mixed-use development that would include residential and commercial uses. The Project has been designed to respond to the context and character of the surrounding active, urban neighborhood, which is adjacent to residential, commercial, offices, schools and other services. The Project would provide substantial new landscaping, 117 new trees, ground-floor commercial and amenities that would enhance the pedestrian experience.

- Guideline 3, *Require Density Around Transit*, and Guideline 6, *Locate Jobs Near Housing*, address the location of new development within the City. The Project would be supportive of

these Guidelines as it would increase population density and provide new housing that does not currently exist on the Project Site, including housing for Extremely Low Income and Very Low Income Households within an area that is well-served by public transit. The Project would provide new employment opportunities and would also be located near existing employment centers.

- Guideline 5, *Advance Homes for Every Income*, addresses the value of accommodating higher densities and the need to address housing for the poor and middle class. The Project would increase the City's housing stock with a variety of unit sizes and unit costs, including housing affordable to Extremely Low Income and Very Low Income households.

- Guideline 12, *Identify Smart Parking Requirements*, addresses smart parking guidelines intended to avoid parking lots that occupy prime street frontage. The Project would replace existing surface parking with a mixed-use development that would include ground floor and subterranean parking for the commercial and residential units and parking would not be directly visible from the street. Thus, the parking would be provided internal to the Project and would not occupy prime street frontage.

Because the Project would be consistent with these applicable Guidelines, the Project would be consistent with the Planning Commission's Do Real Planning Guidelines, and impacts would be less than significant.

Conclusion:

The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant. No mitigation measures would be required.

Cumulative Impacts: Land Use and Planning

Related projects would be located primarily within the Sun Valley-La Tuna Canyon Community Plan area and would have general access or be in close proximity to transit. The intensification of development within this area would be consistent with the intent of the General Plan Framework, which encourages a diversity of uses, including restaurants, commercial, residential uses, including affordable housing, in close proximity to transit. In addition, many related projects feature mixed-use components that provide housing, office, and street-oriented commercial uses that would enliven the street front and enhance pedestrian activity in accordance with the objectives of the General Plan Framework and other adopted plans. Because it is anticipated that development of the related projects would be consistent with the objectives of the General Plan and other plans that support intensification and redevelopment, land use impacts would be less than significant. Any related projects requesting discretionary approvals, such as changes to the General Plan or zoning would be vetted through environmental review and only allowed at the discretion of the City and with consideration of consistency with applicable plans.

The related projects are located in urbanized areas that are nearly fully developed where, therefore, most opportunities to build involve infill development or re-using previously developed property.

As both the Project and the related projects constitute in-fill development and would increase density, together they would not alter existing basic land use patterns.

The Project would be consistent with the policies and objectives of the Los Angeles Framework Element, Los Angeles General Plan Housing Element, Los Angeles General Plan Mobility Plan 2035, Los Angeles General Plan Noise Element, the City Planning Commission's Do Real Planning document, the SCAG's 2016 RTP/SCS, and the Sun Valley-La Tuna Canyon Community Plan. Specifically, the Project is consistent with goals and policies contained within these plans that aim to provide new housing, improve the pedestrian environment, support mixed use development near transit, improve air quality and active transportation (e.g., bicycling and walking), and encourage new high quality development that is compatible with existing uses and development.

Conclusion

Cumulative land use and planning impacts would be less than significant and would not be cumulatively considerable. No mitigation measures would be required.

6.12 Mineral Resources

Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. The Project Site is located in an urbanized area of the City. As identified in the City of Los Angeles General Plan, Conservation Element, 2001, Appendix A, the Project is located in "Mineral Resource Zone-2", a California State Geologist classification. It denotes an area in which deposits, in this case sand and gravel, are of significance to the state.[59] However, the Project Site is within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan area and is designated as Neighborhood Commercial, which corresponds to the Property's current zoning of C2-1VL, but does not correspond to the Property's current R1-1 zoning, which condition will be resolved with the Project's proposed Zone Change. The Project Site has not been historically used for mineral resource extraction. As such, grading/excavation activities associated with the Project would not result in a loss of sand or gravel.

Oil resource areas are designated as Oil Drilling Districts or State Designated Oil Fields, which often overlap. Generally, State Designated Oil Fields are broader than the drilling districts and follow specific streets and other geographic markers. As shown in the Los Angeles General Plan Safety Element, Exhibit E, Oil Field and Oil Drilling Areas, the Project Site is not located within a Los Angeles City Oil Drilling District.[60] As noted in the Phase I ESA, no oil or gas wells are located

[59] City of Los Angeles General Plan, Conservation Element, 2001.Appendix A. https://planning.lacity.org/cwd/gnlpln/consvelt.pdf, Accessed August 10, 2019.

[60] Los Angeles General Plan Safety Element,1 996, Exhibit E, Oil Field and Oil Drilling Areas https://planning.lacity.org/cwd/gnlpln/saftyelt.pdf Accessed August 10, 2019.

on the Project Site and as a mixed-use Project, implementation of the Project would not involve any oil, gas, or mineral extraction uses.

As the Project Site does not have any wells and no active oil wells are located in its immediate vicinity and the Project has not been used for mineral extraction and does not include any oil or mineral extraction uses, the Project would not result in the loss of availability of known mineral resources.

Conclusion

Impacts to mineral resources would be less than significant and no mitigation measures are required.

b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Less Than Significant Impact. The Project Site is located in an urbanized area of the City. As identified in the City of Los Angeles General Plan, Conservation Element, 2001, Appendix A, the Project is located in an area identified as "Mineral Resource Zone-2", a California State Geologist classification. The Project Site has not been historically used for mineral resource extraction and is not zoned for mineral extraction uses, as it is designated as Neighborhood Commercial within the City of Los Angeles Sun Valley-La Tuna Canyon Community Plan. Because the Project is not currently occupied with mineral extraction uses, is not within a mineral resource recovery zone within the City of Los Angeles General Plan, operation of the Project would not involve mineral extraction, grading/excavation activities associated with the Project would not result in a loss of sand or gravel, and the Project would not encroach on the City's existing sand and gravel mining operations, it would not result in the loss of availability of these locally important mineral resources.

Conclusion

There would be no impact to locally-important mineral resources and no mitigation measures are required.

Cumulative Impacts: Mineral Resources

None of the related projects are within the LA City Oil Drilling District and its respective State Designated Oil Field. Some of the related projects would be located in "Mineral Resource Zone-2", a California State Geologist classification denoted on the Los Angeles General Plan, Conservation Element, 2001, as an area which contains deposits, in this case sand and gravel, which are of significance to the state.[61] The nearest mineral extraction operation is the Vulcan Materials Company (Sun Valley Sand, Gravel & Asphalt) located north of the I-5, north of the Project Site,

[61] City of Los Angeles General Plan, Conservation Element, 2001.Appendix A. https://planning.lacity.org/cwd/gnlpln/consvelt.pdf, Accessed August 10, 2019.

however, none of the related projects are located within this mineral extraction operation site or involve mineral operations.

Conclusion

As discussed above, the Project would have a less than significant impact on mineral resources and the Project's contribution to cumulative impacts would not be cumulatively considerable. Impacts would be less than significant and no mitigation measures are required.

6.13 Noise

The analysis is based on the information provided in the Project-specific Noise Technical Report contained in Appendix H.

Would the project result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant with Mitigation Incorporated. A significant impact may occur if the Project would generate noise levels during construction and operations that exceed the applicable noise level standards set forth in the City's General Plan Noise Element and Municipal Code. The following analysis evaluates the potential noise impacts at nearby noise-sensitive land uses resulting from construction and operation of the Project. As discussed below, implementation of mitigation measures would ensure a less-than-significant impact with respect to construction and operational noise impacts.

Noise Fundamentals

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is unwanted, disturbing, or annoying. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

Frequency, Amplitude, and Decibels

Continuous sound can be described by its *frequency* (pitch) and *amplitude* (loudness). A low-frequency sound is perceived as low in pitch; a high-frequency sound is perceived as high-pitched. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source correlates with the loudness of that source. The amplitude of a sound is typically described in terms of *sound pressure level* (SPL), also referred to simply as the sound level. The SPL refers to the root-mean-square (rms)[62] pressure of a sound wave and is measured in units called microPascals (µPa). One µPa is approximately one hundred-billionth of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to over 100,000,000 µPa. Because of this large range of values, sound is rarely expressed in terms of µPa. Instead, a logarithmic scale is used to describe the SPL in terms of decibels, abbreviated dB. The decibel is a logarithmic unit that describes the ratio of the actual sound pressure to a reference pressure (20 µPa is the standard reference pressure level for acoustical measurements in air).

Because decibels represent noise levels using a logarithmic scale, SPLs cannot be added, subtracted, or averaged through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one bulldozer produces an SPL of 80 dB, two bulldozers would not produce a combined sound level of 160 dB. Rather, they would combine to produce 83 dB. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition.

The dB scale alone does not adequately characterize how humans perceive noise. Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude at higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted (i.e., adjusted), depending on human sensitivity to those frequencies. The resulting SPL is expressed in A-weighted decibels, or dBA. On this scale, the range of human hearing extends from about 3 dBA to about 140 dBA. A 10-dBA increase is judged by most people as a doubling of the sound level. The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds.

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA. However, it is widely accepted that a doubling of sound energy, which results in a change of 3 dBA in a normal environment, is considered to be barely perceptible to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) resulting in a 3 dBA increase in sound would generally be barely detectable.

[62] Root-mean-square (rms) is defined as the square root of the mean (average) value of the squared amplitude of the noise signal.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, various descriptors or noise "metrics" have been developed to quantify environmental and community noise. These metrics generally describe either the average character of the noise or the statistical behavior of the variations in the noise level. Some of the most common metrics used to describe environmental noise, including those metrics used in this report, are described below.

- **Equivalent Sound Level (L_{eq})** is the most common metric used to describe short-term average noise levels. Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off, or construction work, which can vary sporadically. The L_{eq} describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustical energy over the duration of the exposure. For many noise sources, the L_{eq} will vary, depending on the time of day. A prime example is traffic noise, which rises and falls, depending on the amount of traffic on a given street or freeway.

- **Maximum Sound Level (L_{max})** and **Minimum Sound Level (L_{min})** refer to the maximum and minimum sound levels, respectively, that occur during the noise measurement period. More specifically, they describe the rms sound levels that correspond to the loudest and quietest 1-second intervals that occur during the measurement.

- **Percentile-Exceeded Sound Level (L_{xx})** describes the sound level exceeded for a given percentage of a specified period. For example, the L_{50} is the sound level exceeded 50 percent of the time (such as 30 minutes per hour), and L_{25} is the sound level exceeded 25 percent of the time (such as 15 minutes per hour).

- **Community Noise Equivalent Level (CNEL)** is a measure of the 24-hour average A-weighted noise level that is also time-weighted to "penalize" noise that occurs during the evening and nighttime hours when noise is generally recognized to be more disturbing (because people are trying to rest, relax, and sleep during these times). In order to account for this in calculating the CNEL, 5 dBA is added to the Leq during the evening hours of 7 p.m. to 10 p.m.; 10 dBA is added to the Leq during the nighttime hours of 10 p.m. to 7 a.m.; and the energy average is then taken for the whole 24 hour day.

- **Day-Night Sound Level (L_{dn})** is similar to the CNEL described above. Ldn is also a time-weighted average of the 24-hour A-weighted noise level. The only difference is that no "penalty" is applied to the evening hours of 7 p.m. to 10 p.m. 10 dBA is added to the Leq during the nighttime hours of 10 p.m. to 7 a.m., and the energy average is then taken for the whole 24-hour day.

Relevant Noise Regulations

City of Los Angeles Municipal Code

The following is a discussion of the relevant noise regulations and standards established under the City of Los Angeles Municipal Code (LAMC) that would be applicable to the Project.

Construction Noise

Section 41.40(a) of the LAMC prohibits the use, operation, repair, or servicing of construction equipment, as well as job-site delivery of construction materials, between the hours of 9:00 p.m. and 7:00 a.m. where such activities would disturb "persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence." Under Section 41.40(b), construction noise emanating from property zoned for manufacturing or industrial uses is exempted from the Section 41.40(a) standards. In addition, Section 41.40(c) prohibits construction, grading, and related job-site deliveries on or within 500 feet of land developed with residential structures before 8:00 a.m. or after 6:00 p.m. on any Saturday or national holiday or at any time on Sunday.

Section 112.05 of the LAMC places a noise level limit of 75 dBA at a distance of 50 feet for powered equipment or tools, which includes construction equipment in, or within 500 feet of, any residential zone between the hours of 7 a.m. and 10 p.m. Under the code, such limits shall not apply where compliance is technically infeasible. Technical infeasibility means that the noise limit cannot be achieved despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during operation of the equipment. Section 111.02 of the LAMC provides guidance on conducting sound level measurements pursuant to City noise regulations. The guidance from this section states, in part:

> *"…the level of a particular noise being measured shall be the numerical average of noise measurements taken at a given location during a given time period."*

The LAMC does not state a specific averaging time to be used for a noise measurement conducted pursuant to City noise regulations. However, as indicated in Section 111.02(b) of the LAMC in regard to sound level measurement procedure and criteria, the City references a period of "60 consecutive minutes" as a criterion in assessing an alleged offensive noise. Therefore, for the purpose of assessing construction activities, the L_{eq} for a 1-hour period is appropriate to assess Project impacts.

Operational Noise

Chapter XI, Noise Regulation (Noise Ordinance), of the LAMC regulates noise from non-transportation noise sources such as commercial or industrial operations, mechanical equipment, or residential activities. Although these regulations do not apply to vehicles operating on public rights-of-way, it is noted that they do apply to noise generated by vehicles on private property, such as in parking lots or parking structures. The exact noise standards vary, depending on the type of noise source; however, the allowable noise levels are generally determined relative to the existing

ambient noise levels at the affected location. Section 111.01(a) defines ambient noise as "the composite of noise from all sources near and far in a given environment, exclusive of occasional and transient intrusive noise sources and the particular noise source or sources to be measured. Ambient noise shall be averaged over a period of at least 15 minutes."

Section 111.02 provides procedures and criteria for measuring the sound level of noise sources that are alleged to be "offending." Section 111.02 states that under conditions where noise alleged to be offending occurs for more than five but less than 15 minutes in any 1-hour period between the hours of 7:00 a.m. and 10:00 p.m. of any day, a five dBA allowance should be provided to the noise source (i.e., a value of -5 dBA would be added to the sound level measurement of the offending noise source). Additionally, under conditions where the offending noise occurs for five minutes or less in any 1-hour period between the hours of 7:00 a.m. and 10:00 p.m. of any day, an additional five dBA allowance can be provided to the noise source. However, under conditions where the offending noise source generates either repeated impulsive noise levels or steady-tone noise levels with an audible fundamental frequency or overtones (except for noise emanating from any electrical transformer or gas-metering and pressure-control equipment existing and installed prior to September 8, 1986), a five dBA penalty should be accounted for in the noise levels (i.e., a value of +5 dBA would be added to the sound level measurement of the offending noise source).

Section 111.03 provides minimum ambient noise levels for various land uses, as described in Table 6-18 below. In the event that the actual measured ambient noise level at a subject location is lower than that provided in the table, the level in the table shall be assumed.

TABLE 6-18
CITY OF LOS ANGELES ASSUMED MINIMUM AMBIENT NOISE LEVELS

	Assumed Minimum Ambient Noise (L_{eq}), dBA[a,b]	
Zone	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

Source: Los Angeles Municipal Code, Section 111.03.
[a] At the boundary line between two zones, the ambient noise level of the quieter zone shall be used.

As discussed previously, the LAMC is not explicit with respect to defining the length of time over which an average noise level should be assessed. However, based on the noted reference to "60 consecutive minutes" in Section 111.02 of the LAMC, the 1-hour L_{eq} metric is used as the length of time to determine an average noise level.

Section 112.01 of the Noise Ordinance addresses noise from radios, television sets, and similar devices that are used for the producing, reproducing, or amplification of the human voice, music, or any other sound. This section states that any noise level caused by these devices that is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof, would be a noise violation. Additionally,

these devices may not generate noise that exceeds the ambient noise level at any adjacent property by more than 5 dBA.

Section 112.02 of the Noise Ordinance addresses noise from air-conditioning, refrigeration, heating, pumping, and filtering equipment. This section states that such equipment may not generate noise that would exceed the ambient noise level at any adjacent property by more than 5 dBA.

Section 112.04 of the Noise Ordinance addresses noise from powered equipment intended for repetitive use in residential areas (e.g., lawn mower, backpack blower, lawn edger, riding tractor) and other machinery, equipment, and devices. This section states that the operation of said equipment between the hours of 10:00 p.m. and. 7:00 a.m. within any residential zone or within 500 feet of a residence is prohibited. Additionally, noise levels associated with the operation of this type of equipment may not generate noise that would exceed the ambient noise level at any adjacent property by more than 5 dBA.

Section 114.02 of the Noise Ordinance addresses noise from motor-driven vehicles. (It is noted that the requirement applies to vehicles on private property only and does not apply to vehicles operated within public rights-of-way.) This section states that such vehicles may not generate noise that would exceed the ambient noise level at any occupied residential property by more than 5 dBA.

Section 114.03 of the Noise Ordinance addresses noise from vehicle loading and unloading. This section prohibits the loading or unloading of any vehicle, or operation of any dollies, carts, forklifts, or other wheeled equipment, between the hours of 10:00 p.m. and 7:00 a.m. of the following day that causes any impulsive sound or raucous or unnecessary noise within 200 feet of any residential building.

City of Los Angeles General Plan Noise Element (1999)

In addition to the previously described LAMC provisions, the City has also established noise guidelines in the Noise Element of the City's General Plan that are used for planning purposes. These guidelines are based, in part, on the community noise compatibility guidelines established by the California State Governor's Office of Planning and Research and are intended for use in assessing the compatibility of various land use types with a range of noise levels.[63] These are not strict standards, but rather are intended to help guide the determination of appropriate land use and mitigation measures relative to existing or anticipated ambient noise levels. The land use/noise compatibility guidelines in the City's General Plan Noise Element are shown in Table 6-19. As shown, **t**he CNEL noise levels for specific land uses are classified into four categories: (1) "normally acceptable" (2) "conditionally acceptable" (3) "normally unacceptable" and (4) "clearly unacceptable." A CNEL value of 70 dBA is considered the dividing line between a "conditionally acceptable" and "normally unacceptable" noise environment for noise sensitive land uses, including residences, transient lodgings, schools, and libraries.

[63] State of California, General Plan Guidelines, Governor's Office of Planning and Research, 2003.

TABLE 6-19
CITY OF LOS ANGELES GUIDELINES FOR NOISE COMPATIBLE LAND USE

	Day-Night Average Exterior Sound Level (CNEL dB)						
Land Use Category	**50**	**55**	**60**	**65**	**70**	**75**	**80**
Residential Single-Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

Source: City of Los Angeles General Plan, Noise Element, 1999.

Notes:

A = Normally acceptable. Specified land use is satisfactory, based on the assumption that the buildings involved are conventional construction, without any special noise insulation.

C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction; closed windows and fresh air supply systems or air-conditioning normally will suffice.

N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.

U = Clearly unacceptable. New construction or development generally should not be undertaken.

Thresholds of Significance

Short-term Construction Noise Criteria

As discussed above, the City regulates construction noise levels per the requirements of the LAMC, which establishes permissible hours for construction activities under Section 41.40 and noise level limits for construction equipment under Section 112.05. As such, the construction noise levels generated by the Project will be assessed against these noise regulations and standards of the LAMC to determine whether potential noise impacts would occur. Therefore, construction activities that either occur outside of the City's permitted construction hours and days identified in Section 41.40 of the LAMC or generate noise levels in excess of the 75 dBA 1-hour L_{eq} noise limit established under Section 112.05 of the LAMC are considered to result in significant impacts. Section 112.05 of the LAMC indicates that the 75 dBA L_{eq} noise limit applies at a distance of 50 feet. However, for this analysis, the noise limit is conservatively applied at the nearest sensitive receptors to the Project Site in recognition of the fact that there are existing noise-sensitive receptors fewer than 50 feet from the Project Site.

Long-term Operational Noise Criteria

In accordance with the noise regulations established under the LAMC, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation for most operational noise sources. As discussed above, this standard applies to: (1)

radios, television sets, and similar devices defined in LAMC Section 112.01; (2) air conditioning, refrigeration, heating, pumping, and filtering equipment defined in LAMC Section 112.02; (3) powered equipment intended for repetitive use in residential areas and other machinery, equipment, and devices defined in LAMC Section 112.04; and (4) motor vehicles driven on site as defined in LAMC Section 114.02. As such, based on the regulations of the LAMC, a significant operational noise impact would occur if Project-related operational on-site (i.e., non-roadway) noise sources such as building mechanical/electrical equipment, parking facilities, outdoor gathering areas, and loading dock areas increase the existing ambient noise level at adjacent land uses by more than 5 dBA. Of the existing adjacent land uses to the Project Site, the noise-sensitive land uses that would be most adversely affected by the Project's operational noise levels would be the single-family residences located to the east and south.

Traffic Noise Criteria

With respect to roadway noise, which is a continual noise source that occurs throughout the day, a 24-hour average noise level metric (i.e., dBA CNEL) is used to assess noise impacts associated with the Project based on the City's land use/noise compatibility guidelines shown in Table 6-20.[64] With respect to the community noise assessment, changes in noise levels of fewer than 3 dBA are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase. For the purpose of this analysis, a significant impact related to an increase in traffic noise levels resulting from Project-induced vehicle trips during construction and operations would occur if the Project causes the ambient noise level measured at the property line of affected sensitive land uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category identified in Table 6-20, or any 5 dBA or greater noise increase.

Existing Noise Environment

The Project Site is located in an urbanized area surrounded by a mix of land uses, including commercial, residential, industrial, office, and school uses. The existing noise environment in the Project vicinity is dominated by traffic noise on local streets, with the loudest noise levels generated along North Lankershim Boulevard. Other secondary noise sources observed near the Project Site include vehicles at the fast food restaurant, power tools used at the automotive repair businesses, aircraft overflights, children playing outdoors from afar at the Arminta Street Elementary School, residential-generated noise (e.g., dogs barking, vehicle operation), and natural background noise (e.g., birds and rustling leaves). In order to document existing noise levels in the study area, a total of seven noise measurements were obtained in the Project vicinity. Five short-term (ST) measurements were obtained in the surrounding area on Wednesday, April 24, 2019, and Friday, April 26, 2019. In addition, two long-term (LT) noise measurements were conducted within the Project Site along the Project boundary adjacent to existing off-site residential dwellings. The noise-monitoring locations were selected to document the existing noise levels at the Project Site and at various neighboring noise-sensitive receptor locations. Each of the ST measurements was

[64] As discussed previously, the City's land use/noise compatibility guidelines are most commonly applied to noise from mobile (transportation) noise sources, such as traffic, rail, and aircraft noise. Stationary noise sources are most commonly addressed using the municipal code standards.

conducted over a period of at least 20 minutes, while the LT measurements were conducted over a 24-hour period from midnight to midnight. All measurement locations are indicated on Figure 6-1.

The instrumentation used to obtain the ST noise measurements consisted of a Type 1 Larson Davis (Model 831) integrating sound level meter (SLM). The instrumentation used to obtain the LT noise measurements consisted of Type 2 Piccolo (Model SLM-P3) SLMs. Both the Type 1 and Type 2 SLMs were field-calibrated prior to each measurement to ensure accuracy, using a Larson Davis CAL200 acoustical calibrator; the calibration was also re-checked at the conclusion of each measurement. The instruments are maintained to manufacturer specifications to ensure accuracy, in accordance with American National Standards Institute standard S1.4-2006. For all measurements, the SLM microphone was mounted at a height of 5 feet above the ground. The noise measurement results are summarized in Table 6-20.

TABLE 6-20
MEASURED EXISTING NOISE LEVELS IN PROJECT AREA

			Noise Levels (dBA)			
Location Number: Description	Date	Time[a]	L_{eq}	L_{max}	L_{min}	CNEL
LT1: Eastern property line of Project Site, south of Strathern Street, adjacent to single-family residence.	4/25/2019 to 4/26/2019	Daytime	55.8[b]	57.3[b]	54.0[b]	60.5
		Nighttime	53.1[c]	57.3[c]	48.1[c]	
LT2: Eastern property line of Project Site, south of Blythe Street, adjacent to single-family residence.	4/25/2019 to 4/26/2019	Daytime	48.2[b]	52.1[b]	44.1[b]	52.7
		Nighttime	45.2[c]	49.7[c]	42.0[c]	
ST1: In front of single-family residence, 11669 Strathern Street, north of the Project Site.	4/24/2019	10:23 a.m. to 10:43 a.m.	67.9	79.3	49.7	NM
ST2: Adjacent to single-family residence, 11713 Blyth Street, west of the Project Site.	4/24/2019	10:59 a.m. to 11:19 a.m.	58.5	77.6	46.8	NM
ST3: Adjacent to Arminta Elementary School property line along Beck Avenue, east of the Project Site.	4/26/2019	10:38 a.m. to 10:58 a.m.	55.2	67.0	48.0	NM
ST4: Northern property line of single-family residence, 7858 Troost Avenue, south of the Project Site.	4/26/2019	9:58 a.m. to 10:18 a.m.	52.2	46.1	65.4	NM
ST5: Adjacent to Village Inn Motel, 7833 Lankershim Boulevard, southwest of the Project Site.	4/24/2019	11:29 a.m. to 11:49 a.m.	70.1	48.5	80.7	NM

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H
Note: NM = Not measured
[a] Daytime = 7 a.m. to 10 p.m. Nighttime = 10 p.m. to 7 a.m.
[b] The value represents the noise level for the noise metric (i.e., L_{eq}, L_{max}, and L_{min}) across the daytime period (i.e., 7 a.m. to 10 p.m.).
[c] The value represents the noise level for the noise metric (i.e., L_{eq}, L_{max}, and L_{min}) across the nighttime period (i.e., 10 p.m. to 7 a.m.).



Figure 6-1
Noise Measurement Locations
7940 Lankershim Blvd. Project

Noise measurements indicate that the daytime ambient noise levels generally ranged between approximately 48 and 70 dBA L_{eq} in the Project area. The LT noise measurements indicate that the average daily noise levels ranged between approximately 53 dBA CNEL in the southeastern portion of the Project Site south of Blythe Street (LT2) and 61 dBA CNEL in the northeastern portion of the Project Site between Strathern Street and Blythe Street (LT1). The higher average daily noise level at the northeastern portion of the Project Site is mainly due to its proximity to Strathern Street, which experiences higher daily vehicular traffic than Blythe Street.

Project Design Features

The following PDFs would be implemented by the Project to minimize its construction and operational noise levels:

PDF-NOI-1: No pile driving activities or blasting will be allowed at the Project Site during construction.

PDF-NOI-2: All noise-generating mechanical equipment during Project operations will be equipped with noise-muffling devices or shielding (e.g., enclosures) to minimize noise levels at neighboring properties in accordance with Section 112.02 of the LAMC, 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 5 dBA. The noise control methods that will be implemented by the Project to reduce its mechanical equipment noise levels may include, but will not be limited to:

a) Selecting mechanical equipment designed to produce low noise levels. This includes the mechanical equipment for heating and cooling interior spaces (i.e., HVAC) as well as equipment associated with the swimming pool;

b) Shielding mechanical equipment with screens, acoustical louvers, or other noise barriers; and

c) Installing a parapet wall around the perimeter of the rooftop of the mixed-use building to minimize noise levels from HVAC equipment.

PDF-NOI-3: The Project will implement operational restrictions to limit excessive noise generated by residents at the outdoor amenity areas located at the ground floor level, which includes the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. Such restrictions will include limiting the hours of use at these outdoor areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire or safety codes), and restricting the exterior use of amplified music. Building management staff would be required to ensure that operations remain in compliance with the daytime noise limits set forth in the LAMC.

Construction Noise

On-site Construction Activities

Construction activities associated with the Project are anticipated to last approximately 39 months, with completion anticipated in 2023. During this time, temporary increases in noise levels in the Project area would occur during certain phases of the construction period due to the operation of various large construction equipment within the Project Site. Construction of the Project would involve demolition of the existing single-story office, single-story commercial building, and associated surface parking lot followed by construction of a seven-story mixed-use building with 432 apartment units above 22,000 square feet of commercial retail and restaurant uses. Grading activities would include cut and fill with approximately 89,000 cubic yards of soil being exported from the Project Site. For any individual off-site receptor adjacent or in proximity to the Project, noise levels experienced over the construction period would fluctuate depending on the type of construction activity and the location of that activity occurring within the Project Site. The noise levels generated by each individual piece of construction equipment associated with each of the different construction activities that would occur as part of the Project are shown in Table 6-21.

TABLE 6-21
PROJECT CONSTRUCTION ACTIVITIES AND EQUIPMENT NOISE LEVELS

			Individual Equipment Noise Levels (dBA) at 50 Feet
Activity	**Equipment**	**Quantity[a]**	**L_{eq}**
Demolition	Concrete Saw	1	83
	Dozer	2	78
	Excavator	2	77
Site preparation	Backhoe	1	74
	Dozer	1	78
	Excavator	1	77
	Loader	1	75
Grading	Backhoe	1	74
	Dozer	1	78
	Excavator	1	77
	Loader	2	75
Building Construction	Crane	1	73
	Forklift	1	68
	Generator	1	78
	Loader	1	75
	Welder	1	70
Paving	Backhoe	1	74
	Cement/mortar mixer	1	75

Activity	Equipment	Quantity[a]	Individual Equipment Noise Levels (dBA) at 50 Feet L_{eq}
	Paver	2	74
	Roller	1	73
Architectural Coatings	Air Compressor	1	74

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H.
[a] The quantity of each type of equipment that is anticipated to operate at the Project Site during each construction activity.

For the purpose of this analysis, the composite hourly average noise levels for the multiple equipment items associated with each construction activity shown in Table 6-22 were first calculated at a reference distance of 50 feet as part of an intermediary step for use in estimating the noise levels at sensitive off-site receptors. The composite hourly average noise levels for each construction activity are shown in Table 6-22.

TABLE 6-22
COMPOSITE NOISE LEVELS FOR EACH CONSTRUCTION ACTIVITY

Construction Activity	Average Composite Hourly Noise Level (L_{eq}) at 50 feet, dBA
Demolition	86
Site preparation	82
Grading	83
Building Construction	81
Paving	81
Architectural Coatings	74

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H.

As shown in Table 6-22, the average hourly noise levels for the Project's construction activities would range from 74 to 86 dBA L_{eq} at the reference distance of 50 feet. The highest noise levels would be associated with the demolition activities.

The nearest sensitive land uses in the Project Site vicinity that could be exposed to increased noise levels during Project construction are be the single-family residences to the north, across Strathern Street and the single family residences directly adjacent to the eastern and southern Project Site boundaries. Additional single-family residences farther away that could also be exposed to increased noise levels during Project construction include those to the west, across Lankershim Boulevard and behind the automotive and commercial uses that front the roadway, and farther south, across Arminta Street. Additionally, other noise-sensitive land uses in the Project vicinity include the Village Inn Motel approximately 450 feet southwest of the Project Site and the Arminta Street Elementary School approximately 715 feet east of the Project Site. For the purposes of this analysis, potential construction-related noise impacts were assessed at each of these sensitive receptor locations, which are shown on Figure 6-2.



Figure 6-2
Off-Site Sensitive Receptor Locations Analyzed
7940 Lankershim Blvd. Project

The highest construction noise levels at each of the analyzed receptor locations were estimated based on the composite noise levels shown in Table 6-22 and the distance of each analyzed receptor from the Project's construction activities. The estimated construction noise levels experienced by the nearby sensitive receptors, which do not account for any noise mitigation measures, are shown in Table 6-23.

TABLE 6-23
ESTIMATED CONSTRUCTION NOISE LEVELS AT NEARBY SENSITIVE RECEPTORS – UNMITIGATED

Receptor Description/Location	Highest Estimated Average Hourly Noise Level (dBA L_{eq})[a]
1. Single-family residences along West Strathern Street, approximately 90 feet north of Project Site	70
2. Single-family residences directly east of, and adjacent to, the northeastern portion of the Project Site (north of Blythe Street)	83
3. Single-family residence directly east of, and adjacent to, the southeastern portion of the Project Site (south of Blythe Street)	82
4. Single-family residences directly south of, and adjacent to, the Project Site	84
5. Single-family residences along Arminta Street, approximately 215 feet south of the Project Site	66[b]
6. Single-family residences approximately 230 feet west of the Project Site, across North Lankershim Boulevard	66[b]
7. Village Inn Motel approximately 450 feet southwest of the Project Site, across North Lankershim Boulevard	61[b]
8. Arminta Street Elementary School approximately 715 feet east of the Project Site, along Beck Avenue between Strathern Street and Arminta Street	47[c]

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H

[a] The noise levels are estimated using a source-to-receptor distance that represents the acoustical average distance between the construction area and each receptor location.

[b] The estimated construction noise level at this location takes into account an additional 5 dBA reduction in noise levels due to the presence of intervening building structures that obstruct the line of sight between the receptor and the Project Site.

[c] The estimated construction noise level at this location takes into account an additional 10 dBA reduction in noise levels due to the presence of numerous rows of intervening single-family residential structures that obstruct the line of sight between the receptor and the Project Site.

As shown in Table 6-23, the highest estimated unmitigated construction-related noise levels that could result at nearby sensitive receptors over the course of Project's construction period would range from 47 dBA L_{eq} at sensitive receptor 8 to 84 dBA L_{eq} at sensitive receptor 4. The construction noise levels at sensitive receptors 2, 3, and 4 would exceed 75 dBA L_{eq}, while the construction noise levels at the other analyzed sensitive receptors would be below 75 dBA L_{eq}. It should be noted that the noise levels shown in Table 6-23 are considered to be a conservative estimate, as they account for the concurrent operation of all construction equipment for the highest noise-generating construction activity. Throughout the course of a construction day, it would be seldom if ever that all construction equipment would be run simultaneously. Instead, the operation of each piece of construction equipment at the Project Site is expected to be staggered throughout the construction day and each piece would be turned off when not in use. Furthermore, during the quieter phases of construction or when construction activity moves farther away from a receptor, the noise levels

would decrease. As such, the highest construction noise levels experienced at each off-site sensitive receptor would only occur over a temporary period within the Project's overall construction schedule. Furthermore, construction activities will comply with the hourly restrictions for noise-generating construction activities, as specified in Section 41.40(a) of the LAMC, which prohibit construction activities between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, and between 6:00 p.m. and 8:00 a.m. on any Saturday or national holiday or at any time on Sunday.

Nonetheless, because the construction noise levels at sensitive receptors 2, 3, and 4 would exceed 75 dBA L_{eq}, Mitigation Measure NOI-1 is recommended to reduce the noise levels at these affected receptors by requiring the implementation of various noise-minimizing measures during Project construction. Amongst these measures are the erection of a 15-foot-high temporary noise barrier along the eastern and southern boundaries of the Project Site, scheduling high noise-producing construction activities during periods that are least sensitive at off-site sensitive receptors, positioning stationary construction equipment as far away as practical from adjacent noise-sensitive receptors, and limiting on-site vehicle speeds and truck idling, among other measures. The estimated construction noise levels experienced by the nearby sensitive receptors with implementation of Mitigation Measure NOI-1 are shown in Table 6-24.

TABLE 6-24
ESTIMATED CONSTRUCTION NOISE LEVELS AT NEARBY SENSITIVE RECEPTORS – MITIGATED[A]

Receptor Description/Location	Highest Estimated Average Hourly Noise Level (dBA L_{eq})[b]
1. Single-family residences along West Strathern Street, approximately 90 feet north of Project Site	70
2. Single-family residences directly east of, and adjacent to, the northeastern portion of the Project Site (north of Blythe Street)	73
3. Single-family residence directly east of, and adjacent to, the southeastern portion of the Project Site (south of Blythe Street)	72
4. Single-family residences directly south of, and adjacent to, the Project Site	74
5. Single-family residences along Arminta Street, approximately 215 feet south of the Project Site	56[c]
6. Single-family residences approximately 230 feet west of the Project Site, across North Lankershim Boulevard	66[c]
7. Village Inn Motel approximately 450 feet southwest of the Project Site, across North Lankershim Boulevard	61[c]
8. Arminta Street Elementary School approximately 715 feet east of the Project Site, along Beck Avenue between Strathern Street and Arminta Street	37[d]

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H

[a] The mitigated construction noise levels account primarily for the erection of a 15-foot-high temporary noise barrier with a minimum sound transmission class (STC) rating of 28 along the eastern and southern boundaries of the Project Site that would provide a minimum of 10 dBA noise attenuation.

[b] The noise levels are estimated using a source-to-receptor distance that represents the acoustical average distance between the construction area and each receptor location.

[c] The estimated construction noise level at this location takes into account an additional 5 dBA reduction in noise levels due to the presence of intervening building structures that obstruct the line of sight between the receptor and the Project Site.

[d] The estimated construction noise level at this location takes into account an additional 10 dBA reduction in noise levels due to the presence of numerous rows of intervening single-family residential structures that obstruct the line of sight between the receptor and the Project Site.

As shown in Table 6-24, with implementation of Mitigation Measure NOI-1, the highest estimated construction-related noise levels at sensitive receptors 2, 3 and 4 would be 73, 72, and 74 dBA L_{eq}, respectively, which would all be below 75 dBA L_{eq}. The noise levels shown in Table 6-25 take into consideration the noise attenuation provided by the distance between the sources and the receptors, and the 15-foot-high noise barrier with a minimum sound transmission class (STC) rating of 28 that would be constructed around the eastern and southern perimeter of the Project Site boundary, which would be capable of reducing noise levels by a minimum of 10 dBA. The other noise control methods listed as part of Mitigation Measure NOI-1 are more difficult to quantify and, as such, are not factored into the estimated noise levels. Therefore, actual noise levels would be lower than what is shown in Table 6-24. Thus, with the implementation of Mitigation Measure NOI-1, the Project would not expose any of the nearest off-site sensitive receptors to noise levels that exceed 75 dBA L_{eq}. Therefore, construction noise impacts would be reduced to a less-than-significant level.

Mitigation Measure

MM NOI-1: The following measures shall be employed during Project construction to reduce short-term noise levels:

a) A 15-foot-high temporary noise barrier with a minimum STC rating of 28 will be erected along the eastern and southern boundaries of the Project Site to provide a minimum of 10 dBA noise attenuation.

b) Equipment staging and laydown areas will be located at the farthest practical distance from nearby residential land uses.

c) High noise-producing construction activities will be scheduled during periods that are least sensitive, such as during daytime hours when neighboring residents are generally away at work.

d) Construction equipment will be fitted with noise-reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer.

e) Stationary construction equipment, such as compressors, will be positioned as far away as practical from adjacent noise-sensitive receptors.

f) All construction equipment not in use will be switched off.

g) Haul trucks will not be allowed to idle for periods greater than 5 minutes, except as needed to perform a specified function (e.g., concrete mixing). Signs will be posted in delivery loading areas specifying this idling restriction.

h) On-site vehicle speeds will be limited to 15 miles per hour or less (except in cases of emergency).

i) Construction-related truck traffic will be routed away from noise-sensitive areas to the extent feasible.

j) Back-up beepers for all construction equipment and vehicles will be broadband sound alarms or adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters will be employed.

k) A designated point of contact will be identified to address noise-related complaints during construction. The noise disturbance coordinator will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler) and will be required to implement reasonable measures such that the complaint is resolved.

Construction Traffic

Construction worker vehicles and haul trucks, which would transport equipment and materials to and from the Project Site, would incrementally increase noise levels on the local roads in the Project area. The trucks traveling to and from the Project Site would be required to travel along the haul route approved by the City of Los Angeles for the Project. While the specific haul route has not been finalized at this stage, it is likely that construction traffic would access the Project Site using either Strathern Street and/or Lankershim Boulevard from either Interstate 5 or State Route 170.

Based on construction-related information provided by the Applicant, it was determined that the grading construction phase for the Project would require the most heavy truck trips per day, which would contribute most to increased roadway noise levels in the Project area. During this phase, an estimated 278 daily truck trips (139 inbound and 139 outbound), 55 daily vendor trips (28 inbound and 28 outbound), and 14 daily worker trips (7 inbound and 7 outbound) would occur. To assess the potential traffic noise increase resulting from Project construction, the additional daily traffic volumes generated from Project construction (i.e., 278 truck trips, 55 vendor trips, and 14 worker trips) were added to the existing daily traffic volumes on the segments of Strathern Street and Lankershim Boulevard in the Project vicinity to assess the increase in noise levels. The estimated roadway noise levels resulting from the addition of the Project's construction-related traffic on these two analyzed roadways are shown in Table 6-25.

TABLE 6-25
OFF-SITE CONSTRUCTION TRAFFIC NOISE LEVELS

Roadway	Roadway Segment	Existing Traffic Volume Noise Levels (dBA CNEL)[a]	Existing + Project Construction Traffic Volume Noise Levels (dBA CNEL)[a]	Increase (dBA CNEL)
Lankershim Boulevard	South of Tuxford Street	67.6	68.2	0.6
	North of Strathern Street	67.4	68.0	0.6
	South of Strathern Street	67.6	68.2	0.6
	North of Stagg Street	67.8	68.3	0.5
	South of Stagg Street	67.8	68.3	0.5
	North of Saticoy St.	67.8	68.3	0.5
	South of Saticoy St.	67.8	68.4	0.6
Strathern Street	West of Laurel Canyon Boulevard	63.5	64.8	1.3
	East of Laurel Canyon Boulevard	63.2	64.6	1.4
	West of Lankershim Boulevard	62.8	64.3	1.5

Roadway	Roadway Segment	Existing Traffic Volume Noise Levels (dBA CNEL)[a]	Existing + Project Construction Traffic Volume Noise Levels (dBA CNEL)[a]	Increase (dBA CNEL)
	East of Lankershim Boulevard	64.9	65.9	1.0
	West of Tujunga Ave.	64.8	65.8	1.0
	East of Tujunga Ave.	63.7	65.0	1.3
	West of Vineland Ave.	63.2	64.6	1.4
	East of Vineland Ave.	60.9	63.1	2.2

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H
[a] Noise levels are estimated at 50 feet from the roadway centerline.

As shown in Table 6-25, the increase in traffic noise levels on both Strathern Street and Lankershim Boulevard that could potentially be used as the Project's haul route would all be below the most stringent criterion of 3 dBA CNEL. As such, the Project's effect on daily average ambient noise levels related to construction traffic would be barely noticeable and impacts would be less than significant.

Operational Noise

Operational Traffic Noise

The Project would generate new vehicle trips that would incrementally add to traffic levels on surrounding streets and could change the associated traffic noise levels. Based on the Project's TIS, it is estimated that a total net increase of 3,473 daily trips to and from the Project Site would occur as a result of the Project (Gibson Transportation Consulting, Inc., 2019). Table 6-26 summarizes the predicted existing and future noise levels, both with and without the Project, from the roadway segments considered in the TIS. The results indicate that future traffic noise levels with the Project would be 0.2 to 0.8 dB higher than existing baseline conditions, with Project-generated increases contributing 0 to 0.5 dB. With respect to the community noise assessment, changes in noise levels of less than 3 dBA are generally not discernable to most people As such, the small level of traffic noise increase resulting from the Project is considered imperceptible to the human ear. Therefore, impacts associated with traffic noise levels from implementation of the Project would be less than significant.

TABLE 6-26
PREDICTED TRAFFIC NOISE LEVELS

	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)[a]						
Roadway/Segment	Existing (Baseline)	Existing with Project	Increase over Existing (Project Only)	Future without Project	Future with Project	Increase over Existing (Cumulative)	Increase over Future without Project
Strathern Street							
West of Laurel Canyon Road	63.5	63.6	0.1	63.8	63.9	0.4	0.1
East of Laurel Canyon Road	63.2	63.5	0.3	63.5	63.8	0.6	0.3

Roadway/Segment	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)[a]						
	Existing (Baseline)	Existing with Project	Increase over Existing (Project Only)	Future without Project	Future with Project	Increase over Existing (Cumulative)	Increase over Future without Project
West of Lankershim Boulevard	62.8	63.1	0.3	63.1	63.4	0.6	0.3
East of Lankershim Boulevard	64.9	65.2	0.3	65.1	65.4	0.5	0.3
West of Tujunga Avenue	64.8	65.0	0.2	65.0	65.2	0.4	0.2
East of Tujunga Avenue	63.7	63.9	0.2	64.0	64.1	0.4	0.2
West of Vineland Avenue	63.2	63.4	0.2	63.5	63.7	0.5	0.2
East of Vineland Avenue	60.9	61.1	0.2	61.2	61.4	0.5	0.2
Stagg Street							
West of Lankershim Boulevard	54.9	55.5	0.6	55.3	55.7	0.8	0.5
East of Lankershim Boulevard	53.9	54.3	0.4	54.2	54.6	0.7	0.3
Saticoy Street							
West of Lankershim Boulevard	64.3	64.3	0.0	64.6	64.6	0.3	0.0
East of Lankershim Boulevard	63.8	63.9	0.1	64.1	64.1	0.3	0.0
West of Tujunga Avenue	63.4	63.4	0.0	63.7	63.7	0.3	0.0
East of Tujunga Avenue	62.2	62.3	0.1	62.5	62.6	0.4	0.1
Roscoe Boulevard							
West of Webb Avenue	68.4	68.4	0.0	68.6	68.6	0.2	0.0
East of Webb Avenue	68.1	68.1	0.0	68.3	68.3	0.2	0.0
Laurel Canyon Boulevard							
North of Strathern Street	67.3	67.4	0.1	67.6	67.7	0.4	0.1
South of Strathern Street	67.2	67.3	0.1	67.4	67.5	0.3	0.1

Roadway/Segment	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)[a]						
	Existing (Baseline)	Existing with Project	Increase over Existing (Project Only)	Future without Project	Future with Project	Increase over Existing (Cumulative)	Increase over Future without Project
Webb Avenue							
North of Roscoe Boulevard	60.1	60.1	0.0	60.4	60.4	0.3	0.0
South of Roscoe Boulevard	61.6	61.6	0.0	61.8	61.8	0.2	0.1
North of Strathern Street	61.0	61.0	0.0	61.2	61.2	0.2	0.1
Lankershim Boulevard							
South of Tuxford Street	67.6	67.7	0.1	67.9	68.0	0.4	0.1
North of Strathern Street	67.4	67.4	0.0	67.7	67.7	0.3	0.1
South of Strathern Street	67.6	67.8	0.2	67.9	68.1	0.5	0.2
North of Stagg Street	67.8	68.0	0.2	68.1	68.3	0.5	0.2
South of Stagg Street	67.8	67.9	0.1	68.1	68.2	0.4	0.1
North of Saticoy Street	67.8	67.9	0.1	68.1	68.2	0.4	0.1
South of Saticoy Street	67.8	67.9	0.1	68.1	68.2	0.4	0.1
Tujunga Avenue							
South of Strathern Street	65.8	65.9	0.1	66.0	66.1	0.3	0.1
North of Saticoy Street	66.0	66.0	0.0	66.2	66.2	0.2	0.1
South of Saticoy Street	66.2	66.3	0.1	66.4	66.5	0.3	0.0
Vineland Avenue							
South of Strathern Street	68.2	68.2	0.0	68.4	68.5	0.3	0.1

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H

[a] It should be noted that the traffic noise levels presented in this table does not account for the Project's TDM program that would be implemented to promote non-auto travel and reduce single-occupant vehicle trips, which would reduce the Project's daily trip generation by 106 vehicle trips. As such, with implementation of the Project's TDM program, the increases in traffic noise levels on the local roadways would be even lower than those presented in this table.

Stationary Noise Sources

Once operational, the Project would introduce stationary on-site noise sources at the Project Site. These would include the on-site parking structure, retail drive-through, HVAC mechanical equipment, loading/unloading and trash pick-up activities, and activities at the outdoor amenity areas such as the swimming pool deck, game lounge, outdoor kitchen, tot lot, BBQ and sitting area, pet park, and community garden.

Parking/Drive-Through

The Project would include a parking structure consisting of one subterranean level and one at-grade level that provides up to 541 parking spaces (432 residential and 109 commercial parking spaces). All parking would be fully enclosed and screened from public view. Access to the parking structure would be provided via a full-access driveway on Strathern Street and a limited-access driveway on Lankershim Boulevard that accommodates only right-turn ingress and right-turn egress movements. The driveway on Strathern Street would provide access to the residential uses, while the driveway on Lankershim Boulevard would provide access to both the residential and commercial uses on site. In addition, the retail drive-through would be accessed via a separate driveway along Lankershim Boulevard. Activities at the parking structure would generate sporadic noise from vehicles starting, car doors slamming, car alarms, people talking, etc. However, with the exception of the entrance and exit driveways, the parking structure would be fully enclosed and screened as part of the Project design. As such, any noise that is generated within the structure would be shielded from adjacent land uses and would not result in any substantial increase in long-term noise levels at nearby off-site receptors. Nonetheless, noise levels would still be generated as vehicles enter and exit the parking structure. The nearest noise-sensitive uses to the full-access driveway on Strathern Street would be the single-family residences directly adjacent to the Project Site on the east and north of Blythe Street, while the nearest noise-sensitive uses to the limited-access driveway on Lankershim Boulevard would be the single-family residences directly adjacent to the Project Site on the south.

The Project is estimated to result in a total net increase of 3,473 daily trips to and from the Project Site, with an anticipated 210 net new trips and 295 net new trips during the AM and PM peak hours, respectively. For the purposes of this analysis, the PM peak-hour traffic volumes were used to estimate noise levels generated at the parking structure's driveways, as they are higher than the traffic volumes for the AM peak hour. Of the total PM peak-hour trips that would be generated by the proposed residential uses (171 trips), it was assumed that 75 percent of these peak-hour trips would access the Project Site through the driveway on Strathern Street, which only provides access to residential uses, while the remaining 25 percent of the peak-hour residential trips would access the Project Site through the limited-access driveway on Lankershim Boulevard, which provides access to both residential and commercial uses at the Project Site. Additionally, it was assumed that all of the PM peak-hour trips generated by the proposed restaurant use (54 trips) and 75 percent of the PM peak-hour trips generated by the proposed retail use (56 trips) would also access the Project Site through the limited access driveway on Lankershim Boulevard. Finally, it was assumed that the remaining 25 percent of the PM peak-hour trips associated with the retail use (19 trips) would access the Project Site through the separate driveway along Lankershim Boulevard for the retail drive-through. Based on these assumptions and the distance to the nearest off-site sensitive receptors from the Project's driveways, it was determined, using the Federal Transit Administration's (FTA) recommended methodology for stationary source general assessment, that the Project's highest peak-hour vehicle trips would generate noise levels of approximately 45 dBA L_{eq} and 37 dBA L_{eq} at the single-family residences directly adjacent to the eastern and southern

Project Site boundaries, respectively.[65] Because these noise levels would not exceed either the daytime or nighttime ambient noise levels measured at the neighboring single-family residences (locations LT1 and LT2 as shown in Table 6-20), the noise levels generated by the Project's parking-related activity would not result in any substantial increase in long-term noise levels at these off-site receptors. As these nearest receptors would not be exposed to a substantial increase in long-term noise levels from the Project's parking structure, the noise levels experienced at receptors that are farther from the Project Site would also not be substantial. Therefore, this impact would be less than significant.

Aside from vehicle-related noise levels, the proposed retail use would also periodically generate noise if it were to use a drive-through window speaker system. However, if such a system were used, the proposed retail drive-through is not adjacent to any off-site sensitive receptors. The nearest receptors to this drive-through would be the single-family residential uses approximately 200 feet away to the northeast, across Strathern Street, and the single-family residential uses approximately 235 feet west of the Project Site, across Lankershim Boulevard and behind the automotive servicing uses fronting that roadway. The nearest off-site residences to the northeast would be partially shielded from the drive-through by the northern portion of the proposed mixed-use building as well as the existing fast food restaurant. In addition, the retail drive-through would be enclosed along that northern side of the Project Site boundary, which would further reduce the emanation of noise levels from the window speaker. The nearest off-site residences to the west would be provided with noise shielding from the buildings associated with the automotive service uses that front Lankershim Boulevard. Additionally, when existing traffic noise levels on Lankershim Boulevard are taken into consideration, the noise generated by the Project's drive-through window speaker system is not expected to be perceptible at these off-site residences. Therefore, noise impacts associated with the proposed retail drive-through would be less than significant.

Mechanical Equipment

As part of the Project, the HVAC equipment for the mixed-use building would be located on the roof level. Noise would be generated when the HVAC equipment is in operation throughout the day. However, because the proposed mixed-use building would be seven stories in height, the HVAC equipment would be situated much higher than the immediately surrounding sensitive receptor buildings, which range from one story to two stories in height. This vertical distance would attenuate noise levels generated by the HVAC equipment. Additionally, as an industry practice and required under PDF-NOI-2, the design of the on-site HVAC equipment and other noise-generating mechanical equipment associated with the Project would be equipped with noise-muffling devices or shielding (e.g., enclosures, parapet walls) to reduce noise levels that may affect nearby noise-sensitive uses. Such design of on-site mechanical equipment at the Project Site would be required to comply with Section 112.02 of the LAMC, 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 5 dBA. Given compliance with Section

[65] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

112.02 of the LAMC and the height of the new mixed-use building, noise levels generated from HVAC or other related equipment would not generate substantial noise level increases at nearby off-site sensitive uses.

For the purpose of this analysis, the HVAC equipment noise levels at the nearest off-site receptors to the proposed mixed-use building, which include the single-family residences directly adjacent to the Project Site on the east and north of Blythe Street and the single-family residences directly adjacent to the southern Project Site boundary, are estimated under a scenario where half of the rooftop HVAC equipment (i.e., a total of 216 HVAC units) are in operation at the same time. This is considered to be a representative scenario with respect to HVAC operation at the Project Site, as not all of the total 432 rooftop HVAC units would be running at the same time and each unit would be cycling on and off at various times throughout the day. While the make and model of the HVAC units have not been determined at this juncture, it is anticipated that these would be 3-ton units. Based on the specifications sheet for a 3-ton HVAC unit obtained from an HVAC industry manufacturer, these units can generate noise levels of approximately 45 dBA at 50 feet. Given this reference noise level and assuming that 216 HVAC units would be operating concurrently, a composite noise level of approximately 68 dBA at 50 feet would result. Using this composite noise level and the distance from the approximate center of the mixed-used building's rooftop to the nearest off-site receptors, the resulting noise levels were estimated.

Additionally, because the rooftop HVAC units would be installed with screens or other noise barriers and a parapet would also be provided along the perimeter of the rooftop, as required under PDF-NOI-2, a noise attenuation level of 10 dBA was accounted for in the noise level estimates. Based on these assumptions, the estimated HVAC-related noise levels at the single-family residences directly adjacent to the Project Site on the east and north of Blythe Street and the single-family residences directly adjacent to the Project Site on the south would be approximately 47 and 46 dBA L_{eq}, respectively. The 47 dBA L_{eq} noise level that would result at the single-family residences to the east would not exceed either the daytime or nighttime ambient noise levels measured at location LT1, while the 46 dBA L_{eq} noise level that would result at the single-family residences to the south would only exceed the nighttime ambient noise level measured at location LT2 by 1 dBA (the daytime ambient noise level at this location would not be exceeded). As such, the operation of HVAC equipment at the Project Site would not exceed the noise limit identified under Section 112.02 of the LAMC (i.e., 5 dBA increase over existing ambient noise levels on the premises of other occupied properties) at these nearest off-site receptors. Therefore, the Project's rooftop HVAC equipment would not result in any substantial increase in long-term noise levels at these off-site receptors. As these nearest receptors would not be exposed to a substantial increase in long-term noise levels from the Project's HVAC equipment, the noise levels experienced at receptors farther from the Project Site would also not be substantial. As such, this impact would be less than significant.

Loading/Trash Pick-up Area

A loading area serving the Project's proposed retail use and a storage area for trash receptacles serving the mixed-use building would be located on the ground level within the new parking structure, behind the retail space that fronts Lankershim Boulevard. The driveway along

Lankershim Boulevard that serves the retail drive-through would serve as the ingress point for delivery and refuse collection vehicles accessing this loading area. While the loading area would generate noise levels from activities such as truck movements and idling along with general loading/unloading operations, including refuse collection, the location of this area within an enclosed portion of the building's parking structure would shield the nearby off-site sensitive uses from this noise source. Although noise levels generated at the loading area are expected to be mostly contained within the parking structure, some of the noise levels could still emanate from within the parking structure through the vehicle driveways on the eastern and southern sides of the mixed-use building where neighboring residential properties are located.

Based on previously measured noise level data collected at a loading dock serving a retail warehouse, noise levels generated by loading/unloading activities were measured at approximately 62 dBA L_{eq} at a distance of 66 feet. The nearest off-site sensitive receptors that would be exposed to noise levels generated by the Project's loading area would be the single-family residences directly adjacent to the Project Site on the east (north of Blythe Street) and south, which are approximately 220 feet and 320 feet away from the loading area, respectively. Given these distances, and accounting for a 5 dBA attenuation provided by the parking structure, the resulting noise levels at the nearest single-family residences to the east and south of the Project Site would be 46 and 43 dBA L_{eq}, respectively. The 46 dBA L_{eq} noise level that would result at the single-family residences to the east would not exceed either the daytime or nighttime ambient noise levels measured at location LT1, while the 43 dBA L_{eq} noise level that would result at the single-family residences to the south would not exceed either the daytime or nighttime ambient noise levels measured at location LT2. As such, the noise levels generated at the loading area serving the mixed-use building would not result in any substantial increase in long-term noise levels at these off-site receptors. As these nearest receptors would not be exposed to a substantial increase in long-term noise levels from the Project's loading area, the noise levels experienced at receptors farther from the Project Site would also not be substantial. Therefore, this impact would be less than significant.

Outdoor Amenity Areas

The Project would include outdoor residential amenity spaces at the podium and ground levels. The podium-level amenity space would be on the second floor of the mixed-use building and would include courtyards, residential patios, an outdoor kitchen, entertainment lounge, outdoor fireplace, and outdoor fire pit and sitting area. These outdoor amenity spaces at the podium level would be entirely within the mixed-use building and would be situated between the building's residential units on all sides. As such, noise levels generated by tenants using these amenities would be contained within the building and would not result in a substantial increase in noise levels at any off-site sensitive receptors.

The outdoor residential amenity spaces at the ground level of the Project Site would include the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. With the exception of the pet park, which would be located in the northern portion of the Project Site, all of the other outdoor spaces would be within the southeastern portion of the Project Site adjacent to the western terminus of the Blythe Street (which would be completed as a cul-de-sac as part of the Project). The closest noise-sensitive uses to this area would be the

neighboring single-family residences to the east (both north and south of Blythe Street) and to the south. As such, the noise levels generated at these ground floor outdoor areas, with the exception of the pet park, would be readily perceptible at these nearest off-site receptors. The single-family residence to the east of the Project site and south of Blythe Street is a one-story building that would be separated from the outdoor spaces by the proposed two-story recreation room building that would be in the southeastern corner of the Project Site. Because the footprint of this two-story building would entirely obstruct the line of sight between the Project's outdoor amenity areas and this residence, the building would act as a substantial noise barrier. As a result, the worst-case noise levels are expected to occur at the closest residences north of Blythe Street and at the residences immediately south of the Project. These are the two locations considered in the analysis of noise levels generated at the southeastern ground floor outdoor amenity areas. The noise levels for the pet park, which would be on the opposite side of the Project's seven-story mixed-use building, are analyzed separately for its nearest off-site receptors, which would be the single-family residences to the north of the Project Site, across Strathern Street.

Noise levels generated at the outdoor amenity areas on the ground floor would primarily consist of conversational speech among residential tenants and guests. To conduct a conservative analysis for the nearest off-site receptors to the east and south of the Project Site, it is assumed that the various outdoor amenity areas in the southeastern portion of the site would all be used concurrently by tenants and guests, and as such are treated as a single noise source. For this analysis scenario, the following assumptions regarding the number of people at each outdoor area and their voice levels at each outdoor area, which ranges from "normal" to "raised," was used:

- Pool deck and spa – 15 people (half male/half female), with 50 percent of the people talking at a "raised" voice level at any given moment
- Game lounge – Four people (half male/half female), with 50 percent of the people talking at a "raised" voice level at any given moment
- Outdoor kitchen – 10 people (half male/half female), with 50 percent of the people talking at a "normal" voice level at any given moment
- Tot lot – Eight people (half male/half children), with 50 percent of the people talking at a "raised" voice level at any given moment
- BBQ and sitting area – Eight people (half male/half female), with 50 percent of the people talking at a "normal" voice level at any given moment
- Community garden – Six people (half male/half female), with 50 percent of the people talking at a "normal" voice level at any given moment

Overall, this analysis scenario assumes a total of 51 people are using the outdoor amenity areas in the southeastern portion of the Project Site at a given moment. Based on the acoustical average distance from the nearest off-site sensitive receptors to each of the outdoor areas listed above and published data for human speech noise levels for males, females, and children, the resulting noise levels at these receptors were estimated.

As discussed previously, the nearest off-site sensitive receptors that would be exposed to noise levels generated from the Project's pet park would be the single-family residences to the north of the Project Site, across Strathern Street. Based on previously measured noise level data collected at a dog park, noise levels generated by activities at the park were measured at approximately 50 dBA L_{eq} at a distance of 145 feet. Based on this reference noise level and the acoustical average distance from the proposed pet park to the nearest off-site receptor location, the resulting noise levels were estimated.

The noise levels generated by the Project's outdoor amenity areas at their respective nearest off-site receptors are shown in Table 6-27. As part of the Project, PDF-NOI-3 would be implemented that requires the Project to include operational restrictions to limit excessive noise from the outdoor amenity areas by limiting the hours of use at these areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire or safety codes), and restricting the exterior use of amplified music. Compliance with the daytime noise limits set forth in the LAMC would be enforced by the Project's building management staff.

TABLE 6-27
ESTIMATED NOISE LEVELS FROM GROUND FLOOR OUTDOOR AMENITY AREAS AT NEARBY SENSITIVE RECEPTORS

Receptor Location	Estimated Noise Level from Outdoor Amenity Areas (dBA L_{eq})	Existing Daytime (7 a.m. to 10 p.m.) Ambient Noise Levels (dBA L_{eq})	Existing Ambient + Project (dBA L_{eq})	Exceed Ambient Noise Level by 5 dBA?
Single-family residences along West Strathern Street, approximately 90 feet north of Project Site[a]	48	68	68	No
Single-family residences directly east of, and adjacent to, the northeastern portion of the Project Site (north of Blythe Street)[b]	50	56	57	No
Single-family residences directly south of, and adjacent to, the Project Site[b]	55	50[c]	56	Yes

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H.

[a] The noise levels are estimated for the pet park only, as this is the closest outdoor amenity area to these off-site receptors.

[b] The noise levels are estimated for all proposed outdoor amenity areas at the ground floor with the exception of the pet park, which would be entirely shielded by the Project's seven-story mixed-used building from these off-site receptors.

[c] As the actual measured daytime ambient noise level at this residentially zoned location is lower than 50 dBA L_{eq} (i.e., 48 dBA L_{eq} based on noise measurement LT2 shown in Table 6-21), the assumed daytime ambient noise level of 50 dBA L_{eq} is used at this location in accordance with LAMC Section 111.03.

As shown in Table 6-27, the noise levels generated by the Project's outdoor amenity areas could exceed the existing ambient noise level at the single-family residences directly south of, and adjacent to, the Project Site by 6 dBA. The noise levels at all other analyzed off-site receptors would be lower than the corresponding ambient noise levels.

As the single-family residences directly south of the Project Site could be exposed to a perceptible noise increase to their existing ambient noise levels, Mitigation Measure NOI-2 is recommended

to reduce these noise levels by requiring the erection of a solid wall with a minimum height of 8 feet to serve as a noise barrier along the portion of the Project Site's southern boundary where the outdoor amenity areas are located. This noise barrier, which would be of sufficient height to break the single-family residences' line-of-sight of the Project Site's ground-level outdoor amenity areas, would reduce noise levels by approximately 5 dBA, which would reduce the noise levels experienced by these off-site residences from the Project's outdoor amenity areas to a less-than-significant level.[66]

Mitigation Measure

> **MM NOI-2.** A solid wall with a minimum height of 8 feet shall be erected to serve as a noise barrier along the portion of the Project Site's southern boundary where the outdoor amenity areas are located to reduce noise levels at the adjacent off-site single-family residences.

Composite Operational Noise Levels

The composite noise levels experienced by the nearby sensitive receptors due to all of the Project's operational noise sources occurring concurrently are also evaluated to assess the potential maximum overall increase in ambient noise levels at these off-site receptor locations. For the purpose of this analysis, the composite noise levels generated during Project operations are assessed at the nearest off-site sensitive receptors, which include the single-family residences directly adjacent to the east (north of Blythe Street) and south of the Project Site. Both of these two off-site receptor locations would experience noise levels generated by the Project's parking structure, on-site mechanical equipment, loading area, and residential outdoor amenity areas (with the exception of the proposed pet park, which would be completely shielded from these receptors by the Project's seven-story, mixed-use building and the podium-level amenity space that would be located entirely within the Project's mixed use building). It should be noted that this analysis of the Project's composite operational noise levels is conservative in nature because it assumes that all of the Project's stationary noise sources are generating noise at the same time. In practice, such occurrences are generally rare, as the timing of peak noise levels generated by one noise source typically does not coincide with that of another noise source. For instance, the highest noise levels from the Project's parking structure are expected to be generated during the peak weekday morning and evening hours when residents depart for and return from work, which would not normally coincide with the hours when the Project's residential tenants are expected to use the outdoor amenity areas. Additionally, during the daytime work hours, the majority of the Project's rooftop HVAC units are not expected to be active and generate noise levels that would coincide with the noise levels generated by the other on-site stationary noise sources. Nonetheless, for the purpose of conducting a conservative analysis, the composite noise levels generated from all of the Project's on-site noise sources at the nearest off-site sensitive receptors have been estimated and are shown in Table 6-28.

[66] Federal Highway Administration (FHWA). 2011. *Highway Traffic Noise: Analysis and Abatement Guidance.* December.

TABLE 6-28
COMPOSITE NOISE LEVELS FROM UNMITIGATED PROJECT OPERATIONS AT NEARBY SENSITIVE RECEPTORS

Operational Noise Source	Noise Levels (dBA L_{eq})	
	Single-family residences directly east of Project Site (north of Blythe Street)	Single-family residences directly south of Project Site
Outdoor Amenity Areas		
Game Lounge	34	50
Pool Deck and Spa	40	52
Outdoor Kitchen	31	45
Tot Lot	40	45
BBQ and Sitting Area	46	26
Community Garden	46	24
Parking Structure	44	37
On-site Mechanical (Rooftop HVAC) Equipment	47	46
Loading Area	46	43
Project Composite Noise Level	**53**	**56**
Existing Daytime Ambient Noise Level[a]	56[b]	50[c]
Existing Daytime Ambient Plus Project Composite Noise Level	**58**	**57**
Increase Over Existing Ambient Noise Level	2	7
Exceed 5 dBA?	No	Yes

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H.

[a] The Project's composite operational noise levels are evaluated against the daytime (i.e., 7 a.m. to 10 p.m.) ambient noise levels at the nearest
off-site sensitive receptors because it will be during these hours of the day when all of the Project's stationary noise sources (i.e., outdoor amenity areas, parking structure, rooftop HVAC equipment, and loading area) could potentially be operating concurrently. As implementation of
PDF-NOI-3 would restrict the hours of use at the Project's outdoor amenity areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), these noise sources would not occur during nighttime (i.e., 10 p.m. to 7 a.m.) hours. Therefore, the highest composite operational noise levels from the Project would occur during daytime hours.

[b] Based on the daytime noise levels measured at location LT1 (refer to Table 6-21), which are considered to be representative of the ambient noise levels at the single-family residences directly adjacent to, and east of, the Project site.

[c] Based on the noise measurement conducted at location LT2 (refer to Table 6-21), the daytime noise level was measured to be 48 dBA L_{eq}. In accordance with LAMC Section 111.03, the minimum daytime ambient noise level of 50 dBA L_{eq} in a residential zone should be used if the measured noise level is below this noise level. As such, a daytime ambient noise level of 50 dBA L_{eq} was used for location LT2. The measured noise levels at LT2 are considered to be representative of the ambient noise levels at the single-family residences directly adjacent to, and south of, the Project site.

As shown in Table 6-28, the composite noise levels generated by the Project's operational noise sources would exceed the existing daytime ambient noise levels at the nearest single-family residences to the east and south of the Project Site by 2 dBA and 7 dBA, respectively. Of these two nearest off-site receptor locations, only the residences to the south would be exposed to an increase in ambient noise levels of more than 5 dBA. However, with implementation of Mitigation Measure NOI-2, which would require the erection of a solid wall with a minimum height of 8 feet along the portion of the Project Site's southern boundary where the outdoor amenity areas are located, the noise levels at these neighboring residences would be reduced by approximately 5 dBA for all of the individual operational noise sources with the exception of the rooftop HVAC equipment. The

composite noise level generated by Project operations at the single-family residences to the south of the Project Site with implementation of Mitigation Measure NOI-2 is shown in Table 6-29.

TABLE 6-29
COMPOSITE NOISE LEVELS FROM MITIGATED PROJECT OPERATIONS AT SENSITIVE RECEPTORS SOUTH OF PROJECT SITE

Operational Noise Source	Noise Levels (dBA L_{eq}) Single-family residences directly south of Project Site
Outdoor Amenity Areas	
Game Lounge	45
Pool Deck and Spa	47
Outdoor Kitchen	40
Tot Lot	40
BBQ and Sitting Area	21
Community Garden	19
Parking Structure	32
On-site Mechanical (Rooftop HVAC) Equipment	46
Loading Area	38
Project Composite Noise Level	52
Existing Daytime Ambient Noise Level[a]	50[b]
Existing Daytime Ambient Plus Project Composite Noise Level	54
Increase Over Existing Ambient Noise Level	4
Exceed 5 dBA?	No

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H

[a] The Project's composite operational noise levels are evaluated against the daytime (i.e., 7 a.m. to 10 p.m.) ambient noise levels at the nearest off-site sensitive receptors because it will be during these hours of the day when all of the Project's stationary noise sources (i.e., outdoor amenity areas, parking structure, rooftop HVAC equipment, and loading area) could potentially be operating concurrently. As implementation of PDF-NOI-3 would restrict the hours of use at the Project's outdoor amenity areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), these noise sources would not occur during nighttime (i.e., 10 p.m. to 7 a.m.) hours. Therefore, the highest composite operational noise levels from the Project would occur during daytime hours.

[b] Based on the noise measurement conducted at location LT2 (refer to Table 6-21), the daytime noise level was measured to be 48 dBA L_{eq}. In accordance with LAMC Section 111.03, the minimum daytime ambient noise level of 50 dBA L_{eq} in a residential zone should be used if the measured noise level is below this noise level. As such, a daytime ambient noise level of 50 dBA L_{eq} was used for location LT2. The measured noise levels at LT2 are considered to be representative of the ambient noise levels at the single-family residences directly adjacent to, and south of, the Project site.

As shown in Table 6-29, with implementation of Mitigation Measure NOI-2 the composite noise level generated by the Project's operational noise sources would exceed the existing daytime ambient noise levels at the nearest single-family residences to the south of the Project Site by 4 dBA. Therefore, because implementation of Mitigation Measure NOI-2 would reduce the increase in daytime ambient noise levels at these off-site residences to less than 5 dBA, this impact would be reduced to a less-than-significant level.

Conclusion

Compliance with regulatory measures and implementation of project design features PDF NOI-1, PDF NOI-2, and PDF NOI-3, and mitigation measures MM NOI-1and MM NOI-2 would ensure a less than significant impact with respect to construction noise and operational noise impacts.

b. Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant with Mitigation Incorporated. A significant impact may occur if the Project would generate groundborne vibration levels during construction and operations that would result in potential structural damage risks and human annoyance. The following analysis evaluates the potential groundborne vibration impacts at nearby noise-sensitive land uses resulting from construction and operation of the Project. As discussed below, implementation of mitigation measures would ensure a less-than-significant impact with respect to construction vibration impacts, while operational vibration impacts would be less than significant and therefore would not require mitigation measures.

Groundborne Vibration Fundamentals

Groundborne vibration is a small, rapidly fluctuating motion transmitted through the ground. The effects of groundborne vibrations are typically limited to causing nuisance or annoyance to people, but at extreme vibration levels, damage to buildings may also occur.

In contrast to airborne sound, groundborne vibration is not a phenomenon that most people experience every day. The ambient groundborne vibration level in residential areas is usually much lower than the threshold of human perception. Most perceptible indoor vibration is caused by sources within buildings, such as mechanical equipment while in operation, people moving, or doors slamming. Typical outdoor sources of perceptible groundborne vibration are heavy construction activity (such as blasting, pile driving, or earthmoving), steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible, even in locations close to major roads. The strength of groundborne vibration from typical environmental sources diminishes (or attenuates) fairly rapidly over distance.

For the prediction of groundborne vibration, the fundamental model consists of a vibration source, a receptor, and the propagation path between the two. The power of the vibration source and the characteristics and geology of the intervening ground, which affect the propagation path to the receptor, determine the groundborne vibration level and the characteristics of the vibration perceived by the receptor.

Displacement, Velocity, and Acceleration

When a vibration source (blasting, dynamic construction equipment, train, etc.) impacts the ground it imparts energy to the ground, creating vibration waves that propagate away from the source along the surface and downward into the earth. As vibration waves travel outward from a source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The distance that these particles move is referred to as the *displacement* and is typically very small,

usually only a few ten-thousandths to a few thousandths of an inch. *Velocity* describes the instantaneous speed of the motion, and *acceleration* is the instantaneous rate of change of the speed. Each of these measures can be further described in terms of *frequency* and *amplitude*. Although displacement is generally easier to understand than velocity or acceleration, it is rarely used to describe groundborne vibration because most transducers used to measure vibration directly measure velocity or acceleration, not displacement.

Frequency and Amplitude

The frequency of a vibrating object describes how rapidly it is oscillating. The unit of measurement for the frequency of vibration is Hz (the same as used in the measurement of noise), which describes the number of cycles per second.

The amplitude of displacement describes the distance that a particle moves from its resting (or equilibrium) position as it oscillates and can be measured in inches. The amplitude of vibration velocity (the speed of the movement) can be measured in inches per second (in/s). The amplitude of vibration acceleration (the rate of change of the speed) can be measured in inches per second per second.

Vibration Descriptors

As noted above, there are various ways to quantify groundborne vibration based on its fundamental characteristics. Because vibration can vary markedly over a short period of time, various descriptors have been developed to quantify vibration. The two most common descriptors used in the analysis of groundborne vibration are peak particle velocity and vibration velocity level, each of which are described below:

- **Peak Particle Velocity (PPV)** is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is in/s. Unlike many quantities used in the study of environmental acoustics, PPV is typically presented using linear values and does not employ a dB scale. Because it is related to the stresses that are experienced by buildings, PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage (both FTA and the California Department of Transportation [Caltrans] guidelines recommend using PPV for this purpose). It is also used in many instances to evaluate the human response to groundborne vibration (Caltrans guidelines recommend using PPV for this purpose).

- **Vibration Velocity Level (L_V)** describes the rms vibration velocity. Due to the typically small amplitudes of groundborne vibrations, vibration velocity is often expressed in decibels, calculated as follows:

  $$L_v = 20 \times \log_{10}(V/V_{ref}),$$

  where *V* is the actual rms velocity amplitude and V_{ref} is the reference velocity amplitude. It is important to note that there is no universally accepted value for V_{ref}, but the accepted reference quantity for vibration velocity in the U.S. is 1 micro-inch per second (1×10^{-6}

inches/second). The abbreviation VdB is commonly used for vibration decibels to distinguish from noise level decibels. L_V is often used to evaluate human response to vibration levels (FTA guidelines recommend using L_V for this purpose).

Effects of Groundborne Vibration

Vibration can result in effects that range from annoyance to structural damage. Annoyance or disturbance of people may occur at vibration levels substantially below those that would pose a risk of damage to buildings.

Potential Building Damage

When groundborne vibration encounters a building, vibrational energy is transmitted to the structure, causing it to vibrate. If the vibration levels are high enough, damage to the building may occur. Depending on the type of building and the vibration levels, this damage could range from cosmetic architectural damage (e.g., cracked plaster, stucco, or tile) to more severe structural damage (e.g., cracking of floor slabs, foundations, columns, beams, or wells). Buildings can typically withstand higher levels of vibration from transient sources than from continuous or frequent intermittent sources. Transient sources are those that create a single, isolated vibration event, such as blasting or drop balls. Continuous or frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Older, fragile buildings (which may include important historical buildings) are of particular concern. Modern commercial and industrial buildings can generally withstand much higher vibration levels before potential damage becomes a problem.

Human Disturbance or Annoyance

Groundborne vibration can be annoying to people and can cause serious concern for nearby neighbors of vibration sources, even when vibration is well below levels that could cause physical damage to structures. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible but there is less adverse reaction without the effects associated with the shaking of a building. The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

Numerous studies have been conducted to characterize the human response to vibration, and, over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. These studies suggest that the thresholds for perception and annoyance vary according to duration, frequency, and amplitude of vibration. For transient vibration sources (single, isolated vibration events such as blasting), the human response to vibration varies from barely perceptible at a PPV of 0.04 in/s, to distinctly perceptible at a PPV of 0.25 in/s, and severe at a PPV of 2.0 in/s. For continuous or frequent intermittent vibration sources (such as impact pile driving or vibratory compaction equipment), the human response to vibration

varies from barely perceptible at a PPV of 0.01 in/s, to distinctly perceptible at a PPV of 0.04 in/s, and severe at a PPV of 0.4 in/s.[67]

Thresholds of Significance

The City currently has not established any regulatory standards for groundborne vibration in the LAMC or in the Noise Element of the General Plan. While there are also no state vibration standards that would be directly applicable to the Project, guidance published by Caltrans nonetheless provides groundborne vibration quantitative criteria that are useful in establishing thresholds for significant impacts. Caltrans' widely referenced *Transportation and Construction Vibration Guidance Manual* provides guidance for two types of potential vibration impacts: (1) damage to structures, and (2) annoyance to people. Guideline criteria for each are provided in Tables 6-30 and 6-31.

TABLE 6-30
CALTRANS GUIDELINE VIBRATION DAMAGE CRITERIA

	Maximum PPV (in/s)	
Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2013.
Notes: Transient sources create a single, isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

TABLE 6-31
CALTRANS GUIDELINE VIBRATION ANNOYANCE CRITERIA

	Maximum PPV (in/s)	
Human Response	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2013.

[67] California Department of Transportation (Caltrans). Transportation and Construction Vibration Guidance Manual. Final. September 2013.

Notes: Transient sources create a single, isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Thus, because the City has not established regulatory standards for groundborne vibration, the lead agency has determined to use the quantitative criteria published by Caltrans to assess potential structural damage risks and human annoyance resulting from groundborne noise and vibration as the threshold of significance for this analysis.

Construction Vibration

The operation of heavy construction equipment at the Project Site would generate groundborne vibration that could affect structures immediately adjacent to the Project Site. These vibration levels could also cause an annoyance to people at those locations. The closest structures to the Project Site are the single-family residences directly adjacent to the eastern and southern Project Site boundaries, the fast food restaurant (Burger King) immediately northwest of the Project Site, and the automotive repair shop (Schiro's Collision Repairs) immediately southwest of the Project Site. Based on a review of the City's Zone Information and Map Access System, all of the residential buildings adjacent to the east and south of the Project Site were built prior to 1960. As such, for the purpose of this analysis, these residential buildings are considered to be "older residential structures" under Caltrans vibration guidelines. Based on visual inspection, the fast food restaurant and automotive repair shop buildings are considered to be modern commercial buildings. Referring to the Caltrans guideline criteria in Table 6-30, the PPV thresholds for potential building damage from continuous and frequent intermittent sources are 0.5 in/s for modern commercial buildings and 0.3 in/s for older residential structures.

As part of PDF-NOI-1 that would be implemented by the Project, no high-impact activities such as pile driving or blasting would occur at the Project Site during construction. As such, groundborne vibration would be generated from conventional heavy construction equipment, such as bulldozers, backhoes, loaders, and excavators, during Project construction. Table 6-32 shows the estimated construction-related groundborne vibration levels that could occur at the nearest off-site structures to the Project Site, based on the use of either large (full-size) or smaller (mini-size) mobile equipment (e.g., bulldozers, backhoes, loaders), and the resulting vibration impacts at these locations related to potential building damage and human annoyance.

TABLE 6-32
GROUNDBORNE VIBRATION LEVELS AT OFF-SITE RECEPTOR LOCATIONS

Off-Site Receptor Location	Approximate Distance to Project Site (feet)	Large Mobile Equipment[a]			Small Mobile Equipment[b]		
		Estimated PPV (in/s)	Building Damage?[c]	Human Response[d]	Estimated PPV (in/s)	Building Damage?[c]	Human Resonse[d]
Fast food restaurant directly northwest of, and adjacent to, the Project Site	50	0.042	No	Distinctly perceptible	0.001	No	Below barely perceptible
Single-family residences along the Project Site's eastern boundary	5	0.523	Yes	Severe	0.018	No	Barely perceptible

Off-Site Receptor Location	Approximate Distance to Project Site (feet)	Large Mobile Equipment[a]			Small Mobile Equipment[b]		
		Estimated PPV (in/s)	Building Damage?[c]	Human Response[d]	Estimated PPV (in/s)	Building Damage?[c]	Human Resonse[d]
Single-family residences along the Project Site's southern boundary	5	0.523	Yes	Severe	0.018	No	Barely perceptible
Automotive repair shop directly southwest of, and adjacent to, the Project site	5	0.523	Yes	Severe	0.018	No	Barely perceptible

Source: 7940 Lankershim Mixed-Use Project Noise Technical Report contained in Appendix H

[a] Representative of any full-size/large excavator, dozer, loader, etc.

[b] Representative of any small excavator, dozer, loader, etc.

[c] Based on Caltrans vibration guidelines, the fast food restaurant and automotive repair shop are considered to be modern commercial buildings while the single-family residences are considered to be "older residential structures." Referring to the Caltrans guideline criteria shown in Table 6-31, the PPV threshold for modern commercial buildings is 0.5 in/s, and the PPV threshold for older residential structures is 0.3 in/s.

[d] Refer to Table 6-32 for Caltrans vibration annoyance criteria.

As shown in Table 6-32, the use of large, full-size mobile equipment at the Project Site could generate vibration levels that exceed the applicable vibration criteria for building damage at the single-family residential buildings directly adjacent to the east and south Project Site boundaries, and the commercial building associated with the automotive repair shop. Vibration levels at the fast food restaurant would not exceed the applicable vibration criteria for building damage at commercial buildings. Additionally, the vibration velocity levels generated by large mobile equipment at the Project Site could result in "severe" annoyance to the occupants at the adjacent residences and automotive repair shop, while the vibration velocity levels would be "distinctly perceptible" at the fast food restaurant. However, none of the applicable vibration criteria for building damage at the identified nearest structures would be exceeded when smaller-sized mobile equipment is used for Project construction. Furthermore, the vibration velocity levels generated by the smaller-sized mobile equipment would be "barely perceptible" at the adjacent residences and automotive repair shop, and well below "barely perceptible" at the fast food restaurant. Although the sizes of the mobile construction equipment that would be operating at the Project Site have not been determined at this juncture, for the purpose of this analysis it is assumed that large, full-sized mobile equipment would be used during Project construction. Under this scenario, and as shown in Table 6-33, the groundborne vibration levels generated by the construction equipment could exceed the applicable vibration criteria for building damage and result in annoyance to the occupants at the immediately surrounding residential and commercial uses. As such, impacts related to groundborne vibration during Project construction would be potentially significant.

To reduce the groundborne vibration impacts at the affected receptors, Mitigation Measure NOI-3 is recommended. This measure prohibits the use of large mobile equipment within 25 feet of off-site structures adjacent to the Project Site and requires the use of smaller-sized mobile equipment for construction work occurring within 25 feet of an off-site structure. At a distance of 25 feet, large-sized mobile equipment would generate vibration levels of approximately 0.1 in/s PPV, which would not exceed the applicable vibration criteria for building damage to "older residential structures" (0.3 in/s PPV) and commercial structures (0.5 in/s PPV), and would only be "distinctly

perceptible" by occupants at these off-site structures. With implementation of Mitigation Measure NOI-3, the nearest off-site receptors to the Project Site would not be exposed to excessive groundborne vibration or groundborne noise levels during Project construction. Consequently, off-site receptors farther from the Project Site would also not be exposed to excessive groundborne vibration or noise levels during Project construction. Therefore, implementation of Mitigation Measure NOI-3 would reduce impacts to a less-than-significant level.

Mitigation Measure

> **MM NOI-3**: During Project construction the use of large, full-size mobile construction equipment, such as bulldozers, excavators, loaders, etc., shall be prohibited within 25 feet of the existing residential and commercial structures directly adjacent to the Project Site boundary. Instead, small-sized mobile equipment (e.g., Bobcats/skidsteers, compact or mini model versions of bulldozers, excavators, small loaders) shall be used for construction work that needs to take place within this distance to off-site structures during all phases of construction.

Project Operation

As the Project is a mixed-use development, there would be no major sources of vibration resulting from operation of the Project. While operation of on-site mechanical equipment such as HVAC equipment and exhaust fans could produce low levels of vibration, these vibration levels would only occur in the immediate area where the equipment is located and would not result in any impacts at nearby off-site structures. Therefore, impacts related to groundborne vibration and noise during Project operations would be less than significant.

Conclusion

With implementation of MM-NOI-3, groundborne vibration and groundborne noise impacts related to building damage and human annoyance during Project construction would be reduced to less than significant. Impacts during Project operation would be less than significant without the need for mitigation.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There are no private airstrips in the vicinity of the Project area; however, the Hollywood Burbank (Bob Hope) Airport, at 2627 North Hollywood Way in the City of Burbank, is approximately 1.4 miles southeast of the Project Site. While the Project is within 2 miles of the Hollywood Burbank Airport, the Project is well beyond the airport influence area (AIA) of this airport. The Los Angeles County Airport Land Use Commission defines an AIA as the area within which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. Therefore, because the Project Site is well beyond the Hollywood Burbank Airport's AIA, the Project would not expose people residing or working in the Project area to excessive noise levels generated from this airport, and no impacts would occur.

Conclusion

No impact would occur in this regard and no mitigation measures are required.

Cumulative Impacts

Cumulative noise or vibration impacts can occur when two or more projects are under construction simultaneously or generate operational noise or vibration at the same time. Because noise and vibration are localized effects that decrease with distance from the source, significant cumulative impacts do not typically occur unless two or more projects are close to a single receptor. The presence of any natural or manmade barriers (e.g., hills, topography, walls, buildings) between a project site and a receptor will increase the rate of noise reduction over distance and will further reduce any cumulative noise levels.

Related projects in the vicinity of the noise- and vibration-sensitive receptors considered in this analysis include construction activities that could occur simultaneously with construction of the Project, depending on project timing. For the reasons discussed above, construction noise and vibration levels at any single receptor are typically dominated by the closest construction activity. As a result, the chances of construction noise from more distant related project sites making a substantial contribution to overall noise levels at the same receptor is generally low. Nonetheless, incremental increases in total construction noise levels could occur. Based on the related projects expected to occur within the immediate vicinity of the Project Site, the nearest related project to the Project Site would be the proposed residential project at 7660 North Lankershim Boulevard, which is approximately a quarter-mile away to the south. Given this distance of this related project from the Project Site, and along with the numerous intervening structures between this site and the Project Site that would serve to reduce construction-related noise levels, a substantial increase in construction noise levels would not occur should construction of this related project occur at the same time as the Project.

In addition, each of the related projects would be subject to LAMC Section 41.40, which limits the hours of allowable construction activities. Each of the related projects would also be subject to Section 112.05 of the LAMC, which prohibits any powered equipment or powered hand tool from producing noise levels that exceed 75 dBA at a distance of 50 feet from the noise source within 500 feet of a residential zone. Noise levels are only allowed to exceed this noise limitation under conditions where compliance is technically infeasible. With conformance to LAMC Sections 41.40 and 112.05, construction-related noise levels generated by related projects would not exceed City noise regulations or standards. As part of the Project, PDF-NOI-1 would be implemented to ensure that the Project's construction activities would comply with the hourly limitations set under LAMC Section 41.40. Additionally, under MM-NOI-1, the Project would erect a 15-foot-high temporary noise barrier along the eastern and southern boundaries of the Project Site that is capable of reducing noise levels by a minimum of 10 dBA, which would ensure that the Project's construction noise levels would not expose any of the nearest off-site sensitive receptors to noise levels that exceed 75 dBA L_{eq}. Therefore, the Project would not result in a cumulatively considerable contribution to construction noise impacts.

With respect to operational noise, on-site noise levels associated with each of the related projects would be subject to the applicable City noise regulations (e.g., such as LAMC Sections 112.01, 112.02, 112.04, 114.02, and 114.03) to ensure that their noise levels would not adversely affect adjacent land uses. As the nearest related project to the Project Site would be the proposed residential project at 7660 North Lankershim Boulevard that is located approximately a quarter-mile away to the south, this related project and the Project are not close enough to each other such that their on-site operational noise levels would affect the same receptor. Cumulative mobile source noise impacts would occur primarily as a result of increased traffic on local roadways due to the Project and related projects within the study area. However, as shown in Table 6-27, cumulative development along with the Project (i.e., "future with project" traffic noise levels) would increase local noise levels by a maximum of 0.8 dBA CNEL at the roadway segment of Stagg Street, west of North Lankershim Boulevard. As the increase in noise levels at all of the analyzed roadway segments would not exceed the applicable thresholds of either 3.0 dBA CNEL or 5.0 dBA CNEL, the noise increase would not be substantial. Therefore, the cumulative impact associated with mobile source noise would be less than significant.

Because vibration impacts are assessed based on instantaneous peak levels (PPV), worst-case groundborne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. As a result, the vibration from multiple construction sites, even if the sites are near each other, does not generally combine to raise the maximum PPV, and the cumulative effect is no more severe than the effect from the largest individual contribution. As discussed above, the nearest related project to the Project Site is approximately a quarter-mile away. Due to this distance, and the rapid attenuation of groundborne vibration, the Project and this related project are not close enough to each other to affect the same sensitive receptors should construction of this related project occur at the same time as the Project. Only receptors in the immediate vicinity of each construction site would be potentially affected by each development. Additionally, as discussed previously, while operation of on-site mechanical equipment such as HVAC equipment and exhaust fans at the Project Site during Project operations could produce low levels of vibration, these vibration levels would only occur in the immediate area where the equipment is located and would not result in any impacts at nearby off-site structures. Thus, given the distance between the Project and the nearest related project, which is a residential development, no cumulative impact related to the operational vibration levels would occur. Therefore, future development would result in a less-than-significant cumulative impact in terms of groundborne vibration.

Conclusion

Given the localized effects of noise and vibration, and the distance of the expected related projects in the immediate vicinity of the Project Site, cumulative noise and vibration impacts would not be cumulatively considerable.

6.14 Population and Housing

Would the project:

a. Induce substantial unplanned population growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. Per CEGA Guidelines Section 15064(e), Economic and social changes resulting from a project shall not be treated as significant effects on the environment. Economic or social changes may be used, however, to determine that a physical change shall be regarded as a significant effect on the environment. If the physical change causes adverse economic or social effects on people, those adverse effects may be used as a factor in determining whether the physical change is significant. A significant impact could occur if the Project would locate new development such as homes, businesses, or infrastructure, with the effect of substantially inducing unplanned growth and creating a physical change causing adverse economic or social effects. The Project would provide infill development within a currently developed urban setting. It would not add new infrastructure beyond that required to connect the Project to existing utility lines, and adjacent roadways. Therefore, the Project would not indirectly induce unplanned population growth.

The Project would replace the existing commercial and office uses with a mixed-use development consisting of residential and commercial uses. The Project's mix of uses would result in an increase in employment population at the Project Site and an increase in residential population and housing units. The Project would provide 432 residential units (inclusive of 22 units that would be restricted for Extremely Low Income households and 26 units would be designated as restricted affordable housing for Very Low Income Households) and 22,000 sf of ground floor commercial/restaurant uses. The changes in Project Site population are reported in Table 6-33**,** *Estimated Population Growth*. The estimated household size for converting the Project's number of residences to a Project Site population, 2.43 people per household, reflects the Citywide Person Per Household factor for multifamily units as published in the 2016 American Community Survey.

TABLE 6-33
ESTIMATED POPULATION GROWTH

Use	Units or Square Feet	Average Household Size[a] or Employment Generation Factor[b]	Total Population or Employees
Existing Development			
Existing Office	1,520	0.00269	5
Existing Commercial	7,830	0.00271	22
Total Existing Uses	*9,350*		*27*
Employment			
Proposed Restaurant	8,000	0.00271/1,000 sf	22
Pharmacy	14,000	0.00271/1,000 sf	38

Use	Units or Square Feet	Average Household Size[a] or Employment Generation Factor[b]	Total Population or Employees
Total Employment			*60*
Proposed Residential	432	2.43	1,050
Net Employment Increase			**33**

Source: ICF, 2019

[a] The average household size reflects the Citywide Person Per Household factor for multifamily units, provided by the Department of City Planning Demographics Unit and as published in the 2016 American Community Survey.

[b] The employee generation factors for commercial uses is based on the retail employee generation factor included in the Los Angeles Unified School District, 2018 Developer Fee Justification Study, March 2018. https://achieve.lausd.net/cms/lib/CA01000043/Centricity/Domain/921/LAUSD%20Dev%20Fee%20Study%202018%20FINAL.pdf.

As indicated in Table 6-33, the Project would replace existing commercial and office uses with a larger amount of commercial development including retail and restaurant uses, and would result in a net increase of 33 employees.

The interpolated 2018 baseline population, housing and employment estimates for the City of Los Angeles, the estimated growth projections for 2023 (Project buildout year), and SCAG's 2040 growth projections (SCAG Projection Horizon), all based on the SCAG 2016 RTP/SCS,[68] are shown below in Table 6-34, *Projected Population, Housing and Employment Estimates for the City of Los Angeles*, and are discussed in more detail below.[69] As shown in Table 6-34, the City's population is expected to grow by 3.1 percent, the number of households/occupied housing units is expected to increase by 5.1 percent, and the number of employees is expected to grow by 3.6 percent between 2018 and 2023.

TABLE 6-34
PROJECTED POPULATION, HOUSING AND EMPLOYMENT ESTIMATES FOR THE CITY OF LOS ANGELES

		2023 (Project Buildout Year)			2040 (SCAG Projection Horizon)		
	2018 (Project Baseline)	Projected	Total Growth	Percentage Increase as Compared to 2018	Projected	Total Growth	Percentage Increase as Compared to 2018
Population	4,059,665	4,184,605	124,940	3.1%	4,609,400	549,735	13.5%
Housing	1,382,970	1,452,818	69,848	5.1%	1,690,300	307,330	22.2%
Employment	1,872,456	1,939,875	67,419	3.6%	2,169,100	310,128	15.8%

Source: Based on SCAG data prepared for the 2016 RTP/SCS. Compiled by ICF, 2019.

As shown in Table 6-33, the Project is estimated to result in a new residential population of approximately 1,050 residents and 33 net new employees. These Project contributions are

[68] http://scagrtpscs.net/Documents/2016/draft/d2016RTPSCS_DemographicsGrowthForecast.pdf Accessed May 29, 2019. And SCAG Profile of the City of Los Angeles, May 2019

[69] The 2018 baseline estimates were determined by interpolating from data presented in the SCAG projections based on values provided for 2012 and 2020. The 2018 estimate is calculated by: [((2020 data – 2012 data) / 8 years) * 6 years)] + 2012 data = 2018 baseline estimate. The 2023 estimate is calculated by: [((2035 data – 2020 data) / 15 years) * 3 years)] + 2020 data = 2023 buildout estimate. The 2040 estimates are provided by SCAG.

compared, in Table 6-35, *Project Population, Housing, and Employment Impacts for the City of Los Angeles*, to the growth projections shown in Table 6-35 from the SCAG 2016 RTP/SCS for the City.

TABLE 6-35
PROJECT POPULATION, HOUSING, AND EMPLOYMENT IMPACTS FOR THE CITY OF LOS ANGELES

	Project Increase[a]	SCAG Projected Growth[b]	Project Percentage of Growth
Population			
2018–2023 Buildout	1,050	124,940	0.8%
2018–2040 Projection Horizon	1,050	549,735	0.2%
Households			
2018–2023 Buildout	432	69,848	0.6%
2018–2040 Projection Horizon	432	307,330	0.1%
Employment			
2018–2023 Buildout	33	67,419	>0.05%
2018–2040 Projection Horizon	33	296,644	>0.01%

[a] From Table 6-26

[b] From Table 6-27

Source: ICF, 2019. Based on SCAG 2016 RTP/SCS projections.

As shown in Table 6-35, the Project's estimated 1,050 residents would be well within, and would comprise less than 1.0 percent of, SCAG's estimated 2023 population growth of 124,940 persons. SCAG's longer-term projected 2040 population increase for the City area is 549,735 residents, for a total residential population of 4,609,400; the Project's residential population would also be well within, comprising approximately 0.2 percent of, SCAG's total population increase for the City between 2018 and 2040.

The Project would induce planned population growth directly through the introduction of 432 housing units on the Project Site, which currently has no residential uses. However, as Table 6-35 shows, the Project's 432 housing units would be well within SCAG's year 2023 estimated increase of 69,848 households within the City and would comprise 0.6 percent of that figure. The Project's new housing units would also be well within SCAG's 2040 estimated increase of 307,330 households within the City and would comprise 0.1 percent of that figure. The Project's estimated 33 new employees would be well within and would comprise less than 0.01 percent of the SCAG's estimated total employment growth for the region.

As shown in Table 6-35, the Project's contributions to growth fall within the range of growth accounted for in the SCAG projections that are used for future planning activities and provision of services.

In addition, the Project's growth would contribute toward the attainment of City and regional goals and policies to encourage housing development in the greater Los Angeles area. In particular, Objective 4.2 of the Housing Chapter states that the City should "[e]ncourage[s] the location of

new multifamily housing development to occur in proximity to transit stations, along some transit corridors, and within some high activity areas with adequate transitions and buffers between higher-density developments and surrounding lower-density residential neighborhoods."[70]

The Project is located within a TPA and complies with City and regional policies regarding the location of development and preferred development patterns for the region, including locating new development near transit and employment centers. The SCAG RHNA, as addressed in the City's General Plan Housing Element, identifies needed housing stock to meet regional housing needs. The most recent RHNA allocation identifies housing needs for the planning period between January 2014 and October 2021. The City's 2013 -2021 Housing Element is based on the updated 2012 RHNA. Table 1.29 of the Housing Element provides a City needs assessment allocation of 82,002 housing units of which 35,412 units, or 43.2 percent, would be for above moderate income households. The remaining needs include 10,213 very low-income units (12.5 percent). A total of 11 percent of the Project's proposed residential units (48 units) would be designated as restricted affordable housing for either Extremely Low Income Households or Very Low Income Households. Thus, the Project would support the RHNA by contributing to both the overall housing supply and to the availability of affordable housing.

Therefore, for all of the above reasons, the Project's provision of residential and employment development at the Project Site is substantially consistent with the planned growth and sustainability policies of SCAG's 2016 RTP/SCS. The population growth generated by the Project is considered to be substantially consistent with the City's and SCAG's growth policies.

Conclusion

Impacts with respect to inducing substantial unplanned population growth would be less than significant and no mitigation measures are required.

b. Displace substantial numbers of existing people or housing necessitating the construction of replacement housing elsewhere?

No Impact. The Project Site is currently developed with a commercial building, an office building, storage areas, and surface parking. There are no housing units or people dwelling on the Project Site. No housing would be removed or destroyed, and no displacement would occur. The Project would provide new housing units.

Conclusion

No impact would occur with respect to the displacement of people or housing that would necessitate the construction of replacement of housing elsewhere. No mitigation measures are required.

[70] City of Los Angeles, General Plan Framework, Chapter 4 Housing, Goals, Objectives, and Policies. https://planning.lacity.org/cwd/framwk/chapters/04/04.htm Accessed May 29, 2019.

Cumulative Impacts: Population and Housing

Of the eight development projects on the related projects list, three include residential components. These three related projects with residential components include a total of 360 housing units with a corresponding estimated population of 875 persons, without taking into account any existing residential units that might be demolished to allow for development of the related projects.

When combined with the Project's 432 net new units and increase of 1,050 in population, the total number of new housing units is 792 units and the total increase in population would be 1,925. The total number of employees for the related projects would be 551 employees and, when combined with the Project's 33 net new employees, the total number of employees would be 584.

Table 6-36, *Cumulative Population, Housing, and Employment Growth within the City of Los Angeles*, compares the growth of these related projects, together with the Project, to the 2016 RTP/SCS 2040 horizon year projections. The projections focus on the SCAG 2016 RTP/SCS 2040 horizon year as opposed to the Project's 2023 buildout date, since it would be speculative to make assumptions with respect to the buildout dates for each of the related projects used in this analysis. Additionally, SCAG projections incorporate regional policies and are based on long-term demographic trends.[71] The 2040 horizon year serves as the basis for preparation of SCAG's long-range regional plan, policies and strategies for transportation improvements and regional growth throughout the SCAG region. The 2040 projections also serve as a basis for the planning of services, utilities and other infrastructure improvements by regional agencies and local jurisdictions.

TABLE 6-36
CUMULATIVE POPULATION, HOUSING, AND EMPLOYMENT GROWTH WITHIN THE CITY OF LOS ANGELES

	Cumulative Increase Including Proposed Project	SCAG Projected Growth[a]	Cumulative Percentage of Growth
Population	1,925	549,735	0.4%
Households	792	307,330	0.3%
Employment	584	296,644	0.2%

[a] From Table IV.J-1.
Source: ICF, 2019.

The 2040 projections take into account long term regional development trends. Actual development within shorter time frames or localized areas may vary slightly from the projected rates, but short-term variations average out over time. SCAG's regular monitoring of factors affecting growth in the region, allows the projections to remain suitable for use by service agencies for their long term planning.

The cumulative growth shown in Table 6-36 reflects a broad mix of development including residential, office and retail uses, and miscellaneous uses including a school, recycling center, and social service uses. The related projects would be implemented over a longer time period than the

[71] SCAG, 2016 RTP/SCS, page 13.

expected buildout date of the Project, with many developments consisting of longer-range plans for development and/or phased developments that would extend further out in time.

The North Hollywood area is currently developed with a substantial infrastructure system in place to meet the needs of current and anticipated development, consistent with growth patterns identified in applicable SCAG and City plans. Further, the cumulative development is within the planned growth estimates and growth distribution patterns accounted for within the SCAG projections and policies. As reported in Table 6-36, the estimate of cumulative growth for population, housing, and employment is well within the projected estimates for the City. The estimate of cumulative population growth in the larger Project Site vicinity, the 1,925 new people to the area, constitute 0.4 percent of the population growth for the 2040 horizon year. The 792 cumulative dwelling units within the City constitutes 0.3 percent of SCAG's projected housing growth in the City by 2040. The employment population associated with the cumulative growth would represent 0.2 percent of the projected new employment population Citywide by year 2040.

All the related projects are being proposed and/or developed in existing, developed areas, and would be consistent with plan policies that serve as a guide for providing services and infrastructure.

As discussed above, the projected cumulative population, household, and employment growth would be within the 2040 SCAG projections identified in the 2016 RTP/SCS for the City, in an area that is currently built out with existing infrastructure intended to be the site of future planned growth.

Conclusion

There would be a less than significant cumulative impact from unplanned population and housing growth or from displacing substantial numbers of existing people or housing that would require replacement housing elsewhere and would not be cumulatively considerable.

6.15 Public Services

Would the project result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a. Fire protection?

Less Than Significant Impact. Significant impacts to fire protection and emergency services would occur if the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

Fire protection and emergency medical services for the Project Site are provided by the City of Los Angeles Fire Department (LAFD). The LAFD's approximately 3,435 uniformed personnel and 381 civilian support staff provide fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community service.[72] At any given time, there are approximately 1,018 uniformed firefighters on-duty at 106 fire stations across the LAFD's 469 square-mile jurisdiction.[73] LAFD fire stations within close proximity of the Project Site include Fire Station 89, Fire Station 77, Fire Station, 60, and Fire Station 102.[74] Table 6-37, *LAFD Fire Stations Located in the Vicinity of the Project Site*, provides information on the closest location of LAFD fires stations serving the Project Site, the approximate distance/direction from the Project Site and the average response time.

Construction

Construction activities associated with the Project may temporarily increase the demand for fire protection and emergency medical services, and may cause the occasional exposure of combustible materials, such as wood, plastics, sawdust, covering and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with the requirements of OSHA, all construction managers and personnel would be trained in fire prevention and emergency response. Further, fire suppression equipment specific to construction would be maintained on the Project Site. As applicable, construction activities would be required to comply with the 2016 California Building Code (CBC), the California Fire Code (CFD), and Article 7: Fire Protection and Prevention (Fire Code) of Chapter V: Public Safety and Protection, of the LAMC.

[72] Los Angeles Fire Department, Department, Overview, Website, http://lafd.org/about/lafd-overview, accessed July 28, 2020.

[73] These figures represent the number of uniformed firefighters that are available to respond to emergency calls and do not include other on-duty uniformed firefighters that are involved in training or various administrative and support functions (Source: Los Angeles Fire Department, Department Overview, http://lafd.org/about/lafd-overview, accessed July 28, 2020.

[74] Los Angeles Fire Department, Fire Stations, Find Your Station, Website https://www.lafd.org/fsla/stations-map, July 2020 and Google Maps, accessed July 28, 2020.

TABLE 6-37
LAFD FIRE STATIONS LOCATED IN THE VICINITY OF THE PROJECT SITE

Fire Station[a]	Address[a]	Approximate Distance/Direction from Project Site	Average Operational Response Time[b]
Fire Station 89	7063 Laurel Canyon Boulevard	1.6 miles	6:53 (EMS) 6:03 (non EMS) 4:17 (Structural Fire) 5:48(Critical ALS)
Fire Station 77	9224 Sunland Boulevard	2.2 miles	7:21 (EMS) 7:13 (non EMS) 6:39 (Critical ALS) 5:53 (Structural Fire)
Fire Station 60	5320 Tujunga Avenue	3.4 miles	6:22(EMS) 5:53 (non EMS) 5:27 (Critical ALS) 4:57 (Structural Fire)
Fire Station 102	13200 Burbank Boulevard	4.8 miles	6:20 (EMS) 6:02 (non EMS) 5:22 (Critical ALS) 5:17 (Structural Fire)

Notes:.
Structural Fire: The type of call reserved when the LAPD receives a report of a building or structure that is actively burning.
EMS = Emergency Medical Services; ALS = Advanced Life Support
SOURCES: Correspondence with LAFD, December 2019, Ralph M. Terrazas, Fire Chief. December 19, 2019.
https://www.lafd.org/fire-stations/station-results, July 28, 2020
a. From January to August 2019. LAFD, Find Your Station. https://www.lafd.org/fsla/stations-map.
b. FIRESTATLA http://www.lafd.org/fsla/stations-map. Accessed July 28, 2020.

Construction activities are expected to be primarily contained within the Project Site boundaries. Encroachments into the public right-of-way (e.g., sidewalk) adjacent to the Project Site along Strathern Street are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained in each direction on Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded.

Due to the limited duration of construction activities and compliance with applicable codes, Project construction would not be expected to adversely impact firefighting and emergency services so as to necessitate a new or expanded fire station in order to maintain acceptable service ratios, response times, or other performance objectives of the LAFD. Moreover, consistent with *City of Hayward v. Trustees of California State University* (2015) 242 Cal.App.4th 833, significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area of a project, and potential impacts on public safety services are not an environmental impact that CEQA requires a project applicant to mitigate. The Project would comply with applicable LAFD requirements, including implementation of Project's Construction Traffic Management Plan, and due to the temporary nature of the necessary construction activities, construction impacts on fire protection and emergency medical services would be less than significant and no mitigation measures are required.

Operations

Operational activities associated with the Project would increase the demand for fire protection and emergency medical services but not such that it would require the addition of a new fire station, or the expansion, consolidation, or relocation of an existing station in order to maintain service in a manner that would result in significant environmental impacts. As discussed under Item 6.14.a, the Project's estimated 1,050 residents would represent approximately 0.8 percent of the population growth forecasted by SCAG in the City of Los Angeles between 2018 and 2023.

Because the Project is located within a designated City of Los Angeles TPA and within an area meeting SCAG's definition of an HQTA, the population growth generated by the Project is considered consistent with the City's and SCAG's growth policies.

The new building associated with the Project would also be subject to compliance with fire protection design standards, as necessary, per the CBC, CFD, the LAMC, and the LAFD, to ensure adequate fire protection. Key components of these regulatory requirements that would be implemented as part of the Project pursuant to LAFD review and guidance include the following:

- **Building Design:** Fire resistant doors and materials, as well as walkways, stairwell and elevator systems (including emergency and fire control elevators) that meet code requirements.

- **Fire Safety Features:** Installation of automatic sprinkler systems, smoke detectors and appropriate signage and internal exit routes, if not already installed, to facilitate a building evacuation if necessary; as well as a fire alarm system, building emergency communication system and smoke control system.

- **Emergency Safety Provisions:** Implementation of an Emergency Plan in accordance with LAMC Section 57.33.19. The emergency plan would establish dedicated personnel and emergency procedures to assist the LAFD during an emergency incident (e.g. floor wardens, evacuation paths); establish a drill procedure to prepare for emergency incidents; establish an on-site emergency assistance center; and establish procedures to be followed during an emergency incident. Provision of on-site emergency equipment and emergency training for personnel to reduce impacts on the increased need for emergency medical services.

- **LAFD Access:** Access for LAFD apparatus and personnel to the Project Site in accordance with LAFD requirements, inclusive of standards regarding fire lane widths and weight capacities needed to support fire fighting vehicles, markings and on-site vehicle restrictions to ensure safe access. Emergency vehicles and fire access to the Project Site and surrounding area would be provided along Lankershim Boulevard and Strathern Street.

The City of Los Angeles requires that plans for building construction, fire flow requirements, fire protection devices (e.g., sprinklers and alarms), fire hydrants and spacing, and fire access including ingress/egress, turning radii, driveway width, and grading would be prepared for review and approval by the LAFD.

The Project Site is not located in an area of moderate or very high fire hazard.[75] In addition, the Project Site is surrounded by urban development that is not overly dense, has a generally flat topography, and is not adjacent to any wildlands. Therefore, no fuel modification for fire fuel management would be required.

Another important component of ensuring fire protection services is the availability of adequate firefighting water flow. Fire flow requirements are closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazards. The ability of the water service provider to provide water supply to the Project Site is discussed in Item 6.19, *Utilities and Service Systems*. As discussed therein, adequate water supply would be available to serve the Project Site, including minimum fire flow requirements.

As mentioned above, up to four LAFD fire stations would provide fire protection and emergency medical services to the Project area and are dispatched based on availability and the nearest unit to a service call. The Project-related increase in traffic on surrounding roadways could potentially affect emergency response times in the area. A number of factors would serve to facilitate responses to emergency calls. Emergency response is routinely facilitated, particularly for high priority calls, through use of sirens to clear a path of travel, driving in lanes of opposing traffic, use of alternate routes, and multiple station response. The Project vicinity is well served by nearby fire stations within close proximity to one-another and the Project Site. According to the General Plan Framework Element, the City distance standard for EMS services is 1.5 miles. As shown in Table 6-38, one LAFD Station is located near the Project Site within 1.6 miles The Project would work with LAFD and incorporate LAFD's recommendations relative to fire safety into the building plans, including any potential modifications to building plans to reduce the risk and susceptibility of spread of fires, as will be determined by LAFD in its expert discretion upon full construction level design of the Project. As part of the normal building permit process, the Project Applicant would submit a plot plan for review and approval by the LAFD prior to the approval of a building permit. Also, fire stations have access to multiple routes to attend emergency calls. Further, as identified in Item 6.17, *Transportation*, operational traffic impacts to the local roadway network created by the Project would be less than significant.

There are a number of additional factors that influence emergency response times in addition to traffic, including alarm transfer time, alarm answering and processing time, mobilization time, risk appraisal, signals, and roadway characteristics. The LAFD has taken a number of steps to improve its related systems, processes and practices. Upgrades include installation of automated vehicle locating systems on all LAFD apparatus; replacement of fire station alerting systems that control fire station dispatch audio, signal lights, and other fire station alerting hardware and software; development of a new computer aided dispatch system to manage fire and emergency medical service incidents from initial report to conclusion of an incident; and, use of traffic pre-emption systems. A traffic pre-emption system allows the normal operation of traffic lights to be preempted by an emergency vehicle to improve response times by stopping conflicting traffic in advance, providing the emergency vehicle the right-of-way. Based on the ability of LAFD to respond to

[75] Zimas Website, http://zimas.lacity.org/, Accessed September 8, 2019

emergency situations, the number, proximity, and accessibility of fire stations in the Project vicinity and the multiple steps being taken by the LAFD to improve response times, Project impacts on fire protection, services, and response times are considered less than significant.

With incorporation of applicable regulatory requirements (i.e., building design, fire safety features, emergency safety provisions, LAFD access, construction measures, and plot plan review), the Project is not expected to result in a substantial increase in demand for additional fire protection services that would exceed the capability of the LAFD to serve the Project such that it would require construction of new fire facilities. Even if a new fire station, or the expansion, consolidation, or relocation of a station was determined warranted by LAFD, and was foreseeable, the Project area is highly developed, and the site of a fire station or expansion of a fire station would likely be on an infill lot that would likely be less than an acre in size and would likely to subject to separate environmental review processes and, if necessary, project specific mitigation measures.

Development at this scale is unlikely to result in significant unavoidable impacts, and projects involving the construction or expansion of a fire station are typically addressed pursuant to CEQA through categorical exemptions or negative declarations. Further, the protection of public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City general funds. Additionally, as indicated by LAFD, no expansion of service or construction or relocation of fire stations is planned at this time at all and is also therefore not planned or required by the City due to the construction of the Project. Accordingly, no expansion of service or new or modified facilities is proposed by the City as a result of the Project, or is required.

Conclusion

Based on the above, the addition of a new fire facility, or the expansion, consolidation, or relocation of an existing facility, is not foreseeably needed to maintain service and the potential for physical impacts associated with construction of fire facilities are considered less than significant and no mitigation measures are required.

b. Police protection?

Less Than Significant. Significant impacts to police protection services would occur if the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered police facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police services. Police protection for the Project Site is provided by the Los Angeles Police Department (LAPD). The LAPD consists of approximately 9,985 sworn officers.[76] The LAPD operates 21 police stations within four bureaus: Central Bureau, South Bureau, Valley Bureau, and West Bureau. Each of the Bureaus encompasses several communities. The Project Site is located in the Valley Bureau of the LAPD, which includes the Devonshire, Foothill, Mission,

[76] Los Angeles Police Department, COMPSTAT Citywide Profile, 08/04/19 to 08/31/19 http://assets.lapdonline.org/assets/pdf/cityprof.pdf Accessed August 2019

North Hollywood, Topanga, Van Nuys, and West Valley, Community Police Stations and the Valley Traffic Division.[77]

The Project would be under the jurisdiction of Foothill Community Police Station, located at 12760 Osborne Street, Pacoima, approximately 3.3 miles from the Project Site. The Foothill Community Police Station serves the Foothill Service Area which is a culturally diverse community with a population of approximately 182,000 people. The service boundaries for Foothill Geographic Area include the Los Angeles City boundary to the north, Saticoy Street and Cohasset Street to the south, Lowell Avenue to the east, and the Hollywood Freeway to the west.

The Foothill Community Police Station has approximately 330 sworn personnel and 30 civilian support staff assigned. The officer to resident ratio is; 1 officer to 545 residents. Additionally, there are special service teams available within the LAPD to service the Foothill Service Area.

The Foothill Station's emergency response system is directly linked to the LAPD Communications Division's Dispatch Centers. The LAPD Communications Division has the responsibility to staff and answer, on a 24-hour basis, the telephones upon which calls for service are received. This includes 911 emergency calls (police, fire, and paramedic). The average response time to emergency calls for service in Foothill Area during 2018 was 5.3 minutes. The average response time for non-emergency calls for service in Foothill Area during 2018 was 31.4 minutes.[78]

Table 6-38, *Crime Statistics for the Foothill Area*, summarizes the crime statistics for the Foothill Service Area for 2018, 2017, and 2016. The total amount of crimes was 4,216 in 2018, 4,258 in 2017, and 4,193 in 2016, with most of the crimes related to burglary from motor vehicles, personal/other thefts, and motor vehicle theft. As noted, crimes statistics decreased slightly in 2018 from 2017.

TABLE 6-38
CRIME STATISTICS FOR THE FOOTHILL AREA

Crime	2018	2017	2016
Homicide	9	7	10
Rape	38	45	52
Robbery	244	264	244
Aggravated Assault	517	580	578
Burglary	535	553	533
Motor Vehicle Theft	898	891	823
Burglary From Motor Vehicle	1,195	1,122	1,151
Personal/Other Theft	780	796	802

[77] The Los Angeles Police Department, Valley Bureau, http://www.lapdonline.org/valley_bureau Accessed September 2019

[78] Correspondence, Michel R. Moore, Chief of Police, LAPD, July 23, 2019. Appendix J

Total	4,216	4,258	4,193

Source: LAPD, July 2019

Project Design Features

The following PDF measures, are proposed to minimize the need for police protection. These PDFs would be implemented by the Project Applicant and agreed to by the City, would be incorporated into the Project:

PDF PS-1: A construction fence shall be constructed around the Project Site to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

PDF PS-2: Prior to the occupancy of the Project, the Applicant shall provide the Foothill Area Commanding Officer with a diagram of each portion of the property, including access routes, and additional information to facilitate potential LAPD responses.

Construction

During construction, equipment and building materials could be temporarily stored on-site, which could result in theft, graffiti, and vandalism. However, the Project Site is located in an area with high vehicular activity and visibility from Lankershim Boulevard, Strathern Street, and Blythe Street. In addition, PDF PS-1 states the construction site would be fenced along the perimeter to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

Construction activities are expected to be primarily contained within the Project Site boundaries. Encroachments into the public right-of-way (e.g., sidewalk) adjacent to the Project Site along Strathern Street are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained in each direction on Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded. Further, as discussed below, a Construction Management Plan (PDF TRAF-4) for the Project would be prepared in order to prohibit construction-related vehicles/equipment parking on surrounding public streets, minimize disruptions to through traffic flow, and schedule worker and construction equipment delivery to avoid peak traffic hours. Given the visibility of the Project Site from adjacent roadways and surrounding properties, existing police presence in the City of Los Angeles, maintained emergency access, and construction fencing discussed in PDF PS-1, the Project's construction activities are not expected to increase demand on existing police services to a meaningful extent. Therefore, the Project would have a less than significant temporary impact on police protection during construction with incorporation of PDF PS-1.

Operations

Operational activities associated with the Project would increase demand for police protection services but not such that it would require the addition of a new police station, or the expansion, consolidation, or relocation of an existing station in order to maintain service. The Project's 432 residential units are estimated to result in an increase in the residential population of approximately 1,050 residents. The Project's estimated 1,050 residents would be well within, and would comprise

less than 1.0 percent of, SCAG's estimated 2023 population growth of 124,940 persons. Because the Project is located within a designated City of Los Angeles TPA and within an area meeting SCAG's definition of an HQTA, the population growth generated by the Project is considered consistent with the City's and SCAG's planned growth policies. As discussed in Section 2, *Project Description*, the Project would incorporate security measures for the safety of residents, employees, and visitors to the Project Site. During operation of the Project, access to the parking structure would be controlled through gated entries, and the entry areas would be well illuminated. Site security would include controlled keycard access to residential areas, parking areas, secured entry and exit points to all buildings, security lighting within common areas and entryways, and closed-circuit TV monitoring (CCTV).

As shown in Table 6-38, crime statistics for the Foothill Service Area has remained relatively stable over the past three-year period, and there has not been a high increase in crimes reported which doesn't demonstrate a need for additional police protection.

The LAPD apportions each Community Police Station into roughly eight to ten Basic Car areas, with one patrol car permanently assigned to each. Three teams of officers are assigned to patrol each neighborhood on a 24-hour basis (three eight-hour shifts). These officers provide neighborhood patrol to prevent crime and answer radio calls for service. Additional patrol units may be assigned during periods of increased workload.[79] Response times are a function of patrol car location and calls occurring at a particular time. As identified in Item 6.17, *Transportation*, operational traffic impacts would be less than significant with mitigation measures. Further, emergency response to a site is routinely facilitated, particularly for high priority calls, through use of sirens to clear a path of travel, driving in the lanes of opposing traffic, use of alternative routes, and multiple station response. Emergency access to the Project Site and surrounding uses would be maintained at all times and emergency vehicles would have priority and the ability to bypass signals and stopped traffic. Thus, Project-related traffic is not anticipated to impair the LAPD from responding to emergencies at the Project Site. Finally, the Project would provide adequate access for emergency vehicles to the Project Site subject to the approval of the LAPD. Prior to the occupancy of the Project, the Applicant would provide the LAPD with a diagram of the property, including access routes, and additional information to facilitate potential LAPD responses (see PDF PS-2). Accordingly, impacts associated with emergency response times and emergency access are considered less than significant with incorporation of mitigation.

Overall, given the incremental change to the population served by the Foothill Community Police station created by the Project, the relatively stable crime statistics in the Foothill Area, and the Project's planned on-site security measures, the Project is not expected to result in a substantial increase in demand for additional police protection services that would exceed the capability of the LAPD to serve the Project such that it would require construction of new police facilities.

Even if a new police station, or the expansion, consolidation, or relocation of a station was determined warranted by LAPD, and was foreseeable, the Project area is highly developed, and the

[79] LAPD, Official Site of the Los Angeles Police Department, http://www.lapdonline.org/search_results/content_basic_view/6528, Accessed, August 22, 2019.

site of a police station or expansion of a police station would likely be on an infill lot that would likely be less than an acre in size. Development at this scale is unlikely to result in significant unavoidable impacts, and projects involving the construction or expansion of a police station are typically addressed pursuant to CEQA through categorical exemptions or negative declarations. Further, the protection of public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City's general fund. Accordingly, the Project would not create the need for additional police protection services as part of an unplanned police station.

As described in Section 4, 2016–2040 RTP/SCS Program EIR Mitigation Measures, Table 4-1, *Project Consistency with the SCAG 2016-2040 RTP/SCS Mitigation Measures*, the Project has included all relevant public service mitigation measures contained in the 2016 RTP/SCS PEIR. In addition to these applicable mitigation measures (such as SCAG 2016-2040 RTP/SCS Mitigation Measure MM-PS-2(b)) the Project has included PDF PS-1 and PDF-2 to further minimize potential impacts to police services.

Conclusion

Based on the analysis above, impacts are considered less than significant.

c. Schools?

Less Than Significant Impact. Significant impacts to school services would occur if the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for school services. The Project would be served by the Los Angeles Unified School District (LAUSD). The LAUSD is the largest (in terms of number of students) public school system in California and the second-largest in the U.S. The LAUSD encompasses approximately 710 square miles and serves the City of Los Angeles, all or portions of 26 other cities, as well as several unincorporated areas of Los Angeles County. Approximately 4.8 million persons live within the District's boundaries. The LAUSD provides kindergarten through high school (K–12) education to a total of 587,359 students with a total enrollment of 673,849 students when including adult and early childhood education students.[80]

According to the LAUSD, the Project Site is located within a Magnet School Continuous Enrollment Magnet. Students in grades 6 – 8 may make application to one of two magnet programs: Sun Valley Middle School Engineering, Arts & Technology for Global Progress Magnet, or Sun Valley Middle School Environmental Studies through Arts & Sciences Magnet. Additionally, Sun Valley Middle School hosts a by-application-only magnet center, Sun Valley Middle School Biomedical Sciences, Engineering & Leadership Magnet.[81] Schools and programs that are part of

[80] LAUSD, Fingertip Facts 2019-2020 LAUSD, https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=52741&dataid=80515&FileName=Fingertip%20Facts2019-20_English.pdf Accessed December 10, 2019

[81] LAUSD Correspondence, Rena Perez, Director, Master Planning and Demographics. September 17, 2019.

a "school choice area" pull enrollments from the area school(s) that have resident attendance boundaries.

Construction

Construction of the Project would require construction employees that would be hired from a mobile regional construction work force that moves from project to project. Typically, construction workers pass through various development projects on an intermittent basis as their particular trades are required. Given the mobility and short durations of work at a particular site, and a large construction labor pool that can be drawn upon in the region, construction employees would not be expected to relocate residences within this region or move from other regions as a result of their work on the Project. Therefore, Project construction would not generate a significant amount of new students needing to attend local schools that would require the addition of a new school facility or expanding.

Operation

Project operation would incrementally increase demand for school services but not such that it would require the addition of a new school facility, or the expansion, consolidation, or relocation of an existing facility in order to maintain service. The estimated 1,050 persons increase would comprise less than 1.0 percent of, SCAG's estimated 2023 population growth of 124,940 persons. The Project would result in a net increase of 33 employees on the Project Site. If new employees currently reside in neighboring communities and have school children, it is expected the children would remain enrolled in their current school. However, if some new employees with school age children choose to move closer to work, or if some new employees with children are hired from the surrounding community or another City, there could be negligible change in student population in the nearby schools.

Using LAUSD student generation rates, the Project is estimated to generate 194 students.[82] This number is conservative in that it assumes that none of the future Project residents with families would already have students attending the affected schools and that it is possible that a portion of the Project's school-age children would likely attend private schools or charter schools, thus reducing attendance at LAUSD schools. In accordance with the Greene Act of 1998 (SB 50), the Applicant will pay school fees to the Los Angeles Unified School District to offset the impact of additional student enrollment at schools serving the project area. The payment of these fees are deemed by state law to provide full and complete mitigation under CEQA for a project's potential impacts to school facilities.

Conclusion

[82] Student generation rates for residential and commercial uses are taken from the Development School Fee Justification Study, LAUSD, March 2018, Based on the rate for multifamily residential uses: Grades TK-6 = 0.2269; Grades 7-8= 0.0611, Grades 9-12=0.1296 totaling 180 students. For each 1,000 square feet of non-residential space – 0.610 students would be generated equaling 14 students. Total number of students has been rounded up, in order to provide whole student number counts.

With payment of school fees, operational impacts to school services and facilities would be less than significant and no mitigation measures are required.

Conclusion

With payment of school fees, operational impacts to school services and facilities would be less than significant and no mitigation measures are required.

d. Parks

Less Than Significant Impact. Significant impacts to park services would occur if the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for park services. The Los Angeles Department of Recreation and Parks (LADRP) is responsible for the establishment, operation, and maintenance of parks and recreational facilities in the City. These facilities include parks, swimming pools, public golf courses, recreation centers, museums, youth camps, tennis courts, sports programs and programs for senior citizens. The LADRP also supervises construction of new facilities and improvements to existing ones. Currently, the LADRP maintains over 16,000 acres of parkland within approximately 444 regional, community and neighborhood parks, and dozens of pocket and specialty parks. LADRP maintains and operates hundreds of athletic fields, 422 playgrounds, 321 tennis courts, 184 recreation centers, 72 fitness areas, 62 swimming pools and aquatic centers, 30 senior centers, 26 skate parks, 13 golf courses, 12 museums, nine dog parks, and 187 summer youth camps.[83]

One measure of park service is the ratio of parkland per 1,000 residents. The City uses such a ratio for monitoring park service levels and establishing goals for provision of parkland.[84] The Public Recreation Plan, a portion of the Service Element of the City's General Plan, sets a goal of a parkland acres-to-population ratio of neighborhood and community parks of 4.0 acres per 1,000 residents.[85] The City of Los Angeles overall has a ratio of 0.84 acres of neighborhood and community parkland per 1,000 residents. The Sun Valley-La Tuna Canyon Community Plan area has a ratio of 0.92 acres of neighborhood and community parkland per 1,000 residents [86]

The Project area is served by several public parks and recreational facilities. The following LADRP neighborhood parks and recreational facilities are located within a two-mile radius of the Project Site: Bellaire Avenue Park (7960 Bellaire Avenue), De Garmo Park (10145 Arminta Street) and Jaime Beth Slavin Park (7965 Whitsett Avenue).

The following LADRP community parks located within a five-mile radius of the Project Site include: Albert Piantanida lntergenertional Center (9540 Van Nuys Boulevard), Andres and Maria

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83 City of Los Angeles, Los Angeles Department of Recreation and Parks website "Who We Are" http://www.laparks.org/department/who-we-are. Accessed September 21, 2019.

84 City of Los Angeles, Public Recreation Plan, a portion of the Service Systems Element of the Los Angeles General Plan, adopted October 9, 1980.

85 LARDP Correspondence, Michael A. Shull, General Manager, July 31, 2019.

86 LARDP Correspondence, Michael A. Shull, General Manager, July 31, 2019.

Cardenas Recreation Center (14740 W. Blythe Street), Branford Park (13310 Branford Street) David M. Gonzales Recreation Center (10943 Herrick Avenue), Delano Park (15100 Erwin Street), Fernangeles Recreation Center, (8851 Laurel Canyon Road), Hubert H. Humphry Memorial Park, (12560 Fillmore Street), Lake View Terrace Recreation Center, (11075 Foothill Boulevard), North East Valley Multipurpose Center, (11300 Glenoaks Boulevard), North Hills Community Park, (8756 Parthenia Place), North Hollywood Park, (11430 Chandler Boulevard), Panorama City Recreation Center, (8600 Hazeltine Avenue), Ritchie Valens Park (10731 Laurel Canyon Boulevard), Sepulveda Recreation Center (17017 Burbank Boulevard), Sheldon-Arleta Park, (Sheldon, Arleta and the Hollywood Freeway), Stonehurst Recreation Center, (9901 Dronfield Street), Strathern Park- North, (8041 Whitsett Avenue), Studio City Recreation Center (12505 Moorpark Street), Sun Valley Park, (8133 Vineland Avenue), Sunland Park, (8651 Foothill Boulevard), Tiara Street Park, (11480 Tiara Street), Valley Plaza Park, (12240 Archwood Street), Van Nuys - Sherman Oaks Park (14201 Huston Street), Van Nuys Multipurpose Center, (6514 Sylmar Avenue), Van Nuys Recreation Center (14301 Vanowen Street), Victory-Vineland Recreation Center (11117 W. Victory Boulevard) and Weddington Park North (10844 Acama Street).[87]

The LADRP is currently in the process of refurbishing basketball courts throughout the City. Renovations are planned for the David M. Gonzalez Recreation Center. [88]

Specifically credited open space and amenities provided as part of the Project would include a central courtyard located on the second floor between the residential units and connected by walkways (25,000 sf), community room (8,000 sf), recreation room (10,000 sf), an open space area to the south of the Project Site (20,000 sf) interior common open space and 21,600 sf of open space as private balconies.

LAMC Section 12.21-G requires that open space be provided with the development of residential uses**.** Table 6-39**,** *Project Open Space Requirements*, illustrates the approximated amount of open space that would be required according to unit types. As shown in Table 6-39, the Project would be required to provide 61,200 sf of open space which may include recreational facilities and amenities for the Project's 432 units (72 units with less than 3 habitable rooms, 180 units with 3 habitable rooms, and 180 with more than three habitable rooms). The Project would provide 84,600 sf of credited open space, exceeding the LAMC requirements.

TABLE 6-39
PROJECT OPEN SPACE REQUIREMENTS

Proposed Residential Units	Number of Habitable Rooms	Quantity (units)	Factor (sf/unit)[a]	Open Space Requirement (sf)
Studio/1-Bedroom	<3	72	100	7,200

[87] LARDP Correspondence, Michael A. Shull, General Manager, July 31, 2019. Appendix K
[88] LARDP Correspondence, Michael A. Shull, General Manager, July 31, 2019. Appendix K

2-Bedroom	3	180	125	22,500
3-Bedroom	>3	180	175	31,500
Total				**61,200**

[a] Factors based on LAMC Section 12.21.G
Source: Kamran Tabrizi Architect & Associates 2019

As such, the Project would be consistent with the requirements of LAMC, and provide a variety of amenities for the Project residents.

Because of the accessibility of the Project's open space and recreation features, and the fact that the facilities would be designed to meet the focused needs of the Project residents, it is expected that the majority of the Project's recreational demand would take place within the Project Site. Some residual demand would occur for the use of facilities not provided within the Project. The demand for such space would be reduced by the provision of on-site space.

Residual off-site park use would likely be dispersed to parks serving the Project area that would be easily accessible and that have unique features that would be of interest to different residents. It is, thus, anticipated that impacts at any single park location would be minimal and the Project contribution to park use would not cause substantial degradation of existing facilities or require a new public park.

LAMC Section 12.33, which implements the City's parkland dedication ordinance enacted under the Quimby Act, provides a formula for satisfying park and recreational uses through land dedication and/or the payment of in-lieu fees.

The Project proposes to include 84,600 sf of recreational/amenity spaces, pursuant to LAMC Sec 12.2. The Project's estimated population increase of 1,050 persons would result in a demand for approximately 4.2 acres of parkland to meet the City's neighborhood and community parkland standards. The Project would provide on-site park land of 84,600 sf of credited space (approximately 2.29 acres) for 1,050 people, resulting in a ratio of 2.18 acres/1,000 people. However, these standards are goals for the City; and the City's requirements for park space are established in the LAMC. The Project would provide 84,600 sf of credited open space, exceeding the LAMC requirements.

In addition, pursuant to LAMC Section 21.10.3-a.1, Dwelling Unit Construction Tax, the City imposes a tax $200 per dwelling unit on all construction of new dwelling units and modification of existing dwelling units. These taxes are placed into a "Park and Recreational Sites and Facilities Fund" to be used exclusively for the acquisition and development of park and recreational sites. If a developer has already paid Quimby fees, as described under Section 12.33 or has dedicated in lieu parkland or recreational facilities, the dwelling unit tax required may be reduced accordingly.

The finalized Project design would be reviewed by the Department of City Planning to determine whether proposed facilities meet the applicable criteria for consideration or additional park land dedication or fees must be paid. Payment of such fees, if required, would provide a means for the Project to support the provision of park lands in a way that would avoid potential deterioration of parks serving the Project vicinity.

Because the Project's demand for park space would be limited, there are park facilities, including a major regional facility available to serve the Project Site, and the Project per Section 12.33 would provide sufficient facilities or in-lieu fees to avoid adverse impacts to the City's Open Space facilities, the Project demand would not require new, consolidated or expanded facilities and would further avoid deterioration of parks that might be visited by Project residents.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

e. Other governmental services?

Less Than Significant Impact. Significant impacts to library services would occur if the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities, construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives for library services. The City of Los Angeles Public Library (LAPL) provides library services to the City of Los Angeles. The LAPL system provides library facilities and services to the Project Site and the City of Los Angeles. The LAPL consists of the Central Library, eight regional branches, and 64 community branches. The LAPL has a collection size of 7.1 million with 2.1 million library cardholders. All branch libraries provide free access to computer workstations that are connected to the LAPL's information network. In addition to providing internet access, these workstations enable the public to search LAPL's electronic resources including the online catalog, subscription databases, word processing, language learning, literacy, and a large collection of historic documents and photographs.[89]

LAPL has also expanded its digital access to LAPL members. Specifically, LAPL members have access to thousands of podcasts, audiobooks, media publications, and instructional content online and via smartphone applications.[90] In addition, specially designed websites are provided for children, teens, and Spanish-speaking patrons. The LAPL is a member of the Southern California Library Cooperative (SCLC). SCLC is an association of 39 independent city and special district public libraries in the greater Los Angeles area that shares resources to improve library service to the residents of all participating jurisdictions.[91]

The Project Site is served by the Sun Valley Branch Library and the Valley Plaza Branch Library. Table 6-40***,*** *Libraries Serving the Project Site*, provides information regarding these libraries, including their distance/direction from the Project Site, size, and population served.[92]

[89] LAPL, Aurial Granger, Management Assistant, Correspondence August 30, 2019.

[90] https://www.lapl.org/collections-resources/e-media. Accessed September 10, 2019.

[91] https://socallibraries.org/ Accessed September 6, 2019.

[92] LAPL, Aurial Granger, Management Assistant, Correspondence August 30, 2019.

TABLE 6-40
LIBRARY FACILITIES SERVING THE PROJECT SITE

Library	Distance/ Direction from Project Site[a]	Size in Square Feet	Population Served
Sun Valley Branch Library 7935 Vineland Avenue	0.96 miles to the east	12,500	74,185
Valley Plaza Branch Library 12311 Vanowen Street	1.6 miles to the southwest	10,500	61,928

[a] Approximate distance/direction from Project Site in miles is a straight line distance, not a drive distance.
Source: LAPL, Aurial Granger, Management Assistant, Correspondence August 30, 2019. Appendix J

The 2007 LAPL Branch Facilities Plan (Facilities Plan) guides the construction of branch libraries and specifies standards for the size and features of branch facilities based on the population served in each community. The Facilities Plan also outlines the required facilities expansion needs of the libraries within the City. Under the Facilities Plan, the service population for a branch library is determined by the size of the facility as set forth in Table 6-41, *LAPL Branch Facilities Plan – Library Building Size Standards*. The Facilities Plan has been implemented with two bond measures: the 1989 Bond Program and the 1998 Bond Program.[93]

TABLE 6-41
LAPL BRANCH FACILITIES PLAN – LIBRARY BUILDING SIZE STANDARDS

Library Type	Population Served	Size of Facility (sf)
Local Branch	< 45,000	12,500
Local Branch	> 45,000	14,500
Regional Branch	Unspecified	≤ 20,000
Central Library	System-Wide	Unspecified
Level at which new Branch Library recommended	90,000	12,500–14,500

Source: Building on Success: Los Angeles Public Library Strategic Plan, 2007–2010, Branch Facilities Plan. http://www.lapl.org/sites/default/files/media/pdf/about/Strategic_Plan.pdf.

In 1989, City of Los Angeles voters approved Proposition 1, a $53.4 million Branch Library Facilities Bond also known as the 1989 Library Bond Issue. Under Proposition 1, the Facilities Plan proposed to obtain new sites for building, renovating, and expanding libraries that were unable to serve the community sufficiently and/or were damaged by the Whittier earthquake. LAPL also obtained additional funds from the Community Development Block Grant Award of federal funds from the California State Library Proposition 85, as well as from Friends of the Library groups, for a total branch construction program of $108 million. Under the 1989 Bond Program, 29 libraries were built.[94]

On November 3, 1998, Los Angeles voters approved Proposition DD. Proposition DD, also known as the 1998 Library Facilities Bond, authorized $178.3 million in bonds for funding the

[93] Los Angeles Public Library, Strategic Plan, 2007 – 2010, Building on Success; Appendices, VI and VII. http://www.lapl.org/sites/default/files/media/pdf/about/Strategic_Plan.pdf. Accessed August 22, 2019.
[94] Ibid.

construction, renovation, improvement, or expansion of 32 new branch libraries. As a result of effective project management, four additional projects were added to the scope of the overall facilities program. Of the 36 total projects, 18 existing library facilities were replaced with 18 new library facilities on the existing City-owned sites, nine libraries were constructed on newly acquired sites, five new libraries were constructed on acquired sites in communities that previously did not have library services, and with the four additional projects, existing libraries were renovated and expanded. The entire original Facilities Plan has been completed.

In March 2011, the City of Los Angeles approved Measure L to restore LAPL's service hours back to the levels available prior to the 2010 economic downtown. Through Measure L, LAPL would also be able to expand its services, collections and technology. The LAPL Strategic Plan 2015-2020 is a 5-year plan to detail expanded programs and services, referred to as Key Activities within the Plan, offered by LAPL. With the shift in technology from books to computers, the demand for library facilities is changing. As stated above, members of LAPL have access to thousands of podcasts, audiobooks, media publications, and instructional content online and via smartphone applications made available to library patrons. The availability of such resources reduces the demand for physical library space. Recognizing these facts, the Los Angeles Public Library Strategic Plan 2015-2020 places emphasis on the employment of new technology for meeting future needs and includes objectives for increasing digital collections, e-mail circulation and use of mobile apps. This has the result of allowing the LAPL to meet increased population demand aside from the provision of new physical facilities.

The Project's construction workers would come from an existing labor pool whose workers move between construction projects on short-term bases without requiring relocation. Workers traveling to work may stop at a library that is outside of their residential neighborhood. Such library stops would be incidental and typical of workers throughout the region. Such stops would increase library use at one location while reducing it at another. Such variations would occur on short-term bases. Therefore, there would be no notable increase in library usage at the libraries serving the Project Site, and no need for the construction of library facilities to accommodate construction population. The nearest library to the Project Site is the Sun Valley Branch Library, located less than one mile from the Project Site. There are currently no plans of physical improvements involving construction or expansion to any facilities in the project area.[95]

The Project's would result in a net increase in residential population of approximately 1,050 residents. The two nearest libraries serving the Project Site are identified in Table 6-41. The closest library is the Sun Valley Branch Library located 0.96 from Project Site and thus would be expected to be the primary facility used by Project residents. The Project Site also has close proximity to the Valley Plaza Branch Library located 1.6 miles from the Project Site. As identified in Table 6-41, while both libraries are smaller than the facility size criteria, the population served by both libraries is less than 90,000, which is when according to the LAPL, an additional branch library should be considered for the area.

[95] LAPL, Aurial Granger, Management Assistant, Correspondence August 30, 2019

In addition, the Project's residential units would be equipped to receive individual internet service, which would offer residents the opportunity to access the LAPL's online database system that includes podcasts, audiobooks, media publications, and instructional content. The availability of such resources reduces the demand for physical library space.

In addition, the Project would generate revenue for the City's general fund that could be used for the provision of public services such as library facilities. Measure L, which gradually increases library funding from its current level of 0.0175 percent of assessed property value to 0.0300 percent to keep libraries open longer and improve library services, also provides LAPL with a mechanism to address the needs of additional residents. The above fees and mechanisms would offset any incremental need for funding of capital improvements to maintain adequate library facilities and service, resulting from the Project. Furthermore, there are no LAPL plans to add libraries in the area[96] and the Project would not create a demand for a new library.

Conclusion

Impacts regarding library services would be less than significant and no mitigation measures are required.

Cumulative Impacts: Public Services

Fire Protection Services

The related projects would cumulatively generate, in conjunction with the Project, the need for additional fire protection and emergency medical services from the LAFD. Although there would be cumulative demand on LAFD services, cumulative impacts on fire protection and medical services would be reduced through regulatory compliance and site specific design and safety requirements, similar to the Project. All related projects would be subject to review by the LAFD for compliance with Fire Code and Building Code regulations related to emergency response, emergency access, fire flow, and fire safety.

The protection of public safety is the first responsibility of local government, and local officials have an obligation to give priority to the provision of adequate public safety services which are typically financed through the City general funds. Through the City's regular budgeting efforts, LAFD's resource needs would be identified and monies allocated according to the priorities at the time. The Project, as well as the related projects, would also generate revenues to the City's General Fund (in the form of property taxes, sales tax revenue, etc.) that could be applied toward the provision of fire services, as deemed appropriate by the City.

Further, project-by-project traffic mitigation, multiple fire station response, and system wide upgrades to improve response times, and other requirements imposed by the LAFD are expected to help support adequate response times. Through the process of compliance, the ability of the LAFD to provide adequate facilities to accommodate future growth and maintain acceptable levels of service would be ensured. Furthermore, the increased demands for additional LAFD staffing,

[96] LAPL, Aurial Granger, Management Assistant, Correspondence August 30, 2019

equipment, and facilities would be funded via existing mechanisms (e.g., property taxes and government funding) to which the Project and related projects would contribute. Even in consideration of the related projects, if a new fire station, or the expansion, consolidation, or relocation of a station was determined warranted by LAFD, and was foreseeable, the Sun Valley-La Tuna Canyon Community Plan Area is highly developed, and the site of a fire station would likely be an infill lot that would likely be less than an acre in size.

Conclusion

Based on the above considerations, the Project would not result in a cumulatively considerable contribution to cumulative impacts associated with the construction of new fire facilities.

Police Protection Services

The related projects would cumulatively generate, in conjunction with the Project, the need for additional police protection services from the LAPD. It is expected that the related projects (particularly those of a larger nature) would be subject to review by the LAPD on a project-by-project basis to ensure that sufficient security measures are implemented to reduce potential impacts to police protection services. Many of the related projects would also be expected to provide on-site security, personnel, and/or design features for their residents and patrons per standard development practices for the given uses. In addition, like the Project, the related projects would also be expected to provide on-site security, personnel and/or design features for their residents and patrons. Each related project would be subject to the City of Los Angeles' routine construction permitting process, which includes a review by the LAPD to ensure that sufficient security measures are implemented.

Further, the protection of public safety is the first responsibility to local government and local officials have an obligation to give priority to the provision of adequate public safety services, which are typically financed through the City's General Funds. Accordingly, the need for additional police protection services as part of an unplanned police station at this time is not an environmental impact that the Project is required to mitigate. Through the process of compliance, the ability of the LAPD to provide adequate facilities to accommodate future growth and maintain acceptable levels of service would be ensured. Furthermore, the increased demands for additional LAPD staffing, equipment, and facilities would be funded via existing mechanisms (e.g., property taxes and government funding) to which the Project and related projects would contribute. Therefore, cumulative impacts related to police protection services would be less than significant.

Conclusion

Based on the above considerations, the Project would not make a cumulatively considerable contribution to cumulative impacts associated with the construction of new police facilities.

Schools

Pursuant to Government Code Section 65995, the payment of developer fees under the provisions of SB 50 addresses the impacts of new development on school facilities serving that development. Accordingly, impacts on public schools from related projects would be mitigated to less than

significant with payment of developer fees. Furthermore, as the Project would also pay school impact fees.

Conclusion

The Project's contribution to cumulative impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

Parks

Of the eight development projects on the related projects list, four include residential components. These four related projects with residential components include a total of 360 housing units with a corresponding population of 875 persons, without taking into account any existing residential units that might be demolished to allow for development of the related projects.

When combined with the Project's 432 net new units and increase of 1,050 in population, the total number of housing units is 792 units and the total population would be 1,925.

This additional population would add to the existing demand for park and recreation facilities. However, these related projects include a large number of large-scale projects that typically include parkland, recreational amenities, and/or open space to help meet project demand, in compliance with LAMC park and open space section requirements. As is the case with the Project, it is anticipated impacts on local parks would be residual effects after primary reliance on on-site recreational amenities and open space, and these impacts would be dispersed over the nearby LADRP parks and other parks (e.g., Los Angeles State Historic Park, Vista Hermosa Park, etc.) in the Project vicinity, as well as more distant parks. The City mitigates potential cumulative impacts on park services to less than significant levels by requiring new development to provide parkland or pay Quimby fees to pay the cost of providing the parkland required to serve new development. Like the Project, the related projects would be subject to the requirements of LAMC Sections 12.21, 12.23 and 17.12. Should any residential developments not require park and recreation facilities pursuant to Sections 12.23 and 17.12, they would still be required to pay a $200 per unit fee to the "Park and Recreational Sites and Facilities Fund" for the acquisition and development of additional park and recreational sites and facilities by the City pursuant to Section 21.10.3 of the LAMC. For all of these reasons, cumulative impacts on parks and recreation facilities would be less than significant.

Conclusion

The Project's contribution to cumulative impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

Other Governmental Services

With respect to libraries, each related project would also generate revenues to the City's General Fund (in the form of property taxes, sales tax, business tax, transient occupancy tax, etc.) that could be applied toward the provision of enhanced library services in the Community Plan Area, as deemed appropriate. While the related projects would not require the construction of new library

facilities, these revenues to the City's General Fund would help offset the increase in demand for library services and support the provision of services within the existing facilities.

Conclusion

Based on the above considerations, the Project would not make a cumulatively considerable contribution to cumulative impacts associated with the construction of new library facilities.

6.16 Recreation

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact (a–b). As discussed under Item 6.15.d, operational activities associated with the Project would increase demand for park services. However, the Project would provide 84,600 sf of open space and amenities that would be tailored to meet the needs of the anticipated residential population. The Project would provide required open space that exceeds the City's open space requirements. The assessment of impacts associated with the construction of any recreational facilities is inclusive of the assessment of impacts associated with the Project in its entirety. As such, the demand or use of nearby park facilities would be reduced at times by the Project. Nonetheless, to offset the Project's demand on park facilities and services, the Project Applicant would be responsible for meeting the parkland dedication or fee requirements pursuant to the Quimby Act and Section applicable LAMC requirements, as necessary.

Therefore, with the proposed open space features and payment of applicable fees, the Project would not substantially deteriorate, or accelerate the deterioration of recreational facilities or resources.

Conclusion

Impacts would be less than significant and no mitigation is required.

Cumulative Impacts: Recreation

Refer to discussion of cumulative impacts related to parks and recreational facilities under Section 6.16, above.

6.17 Transportation

This section assesses potential Project impacts based on the Memo titled "CEQA Thresholds Analysis for the 7940 Lankershim Boulevard Mixed-Use Project Los Angeles, California" (referred to as the "CEQA Thresholds Transportation Memorandum") prepared by Gibson Transportation Consulting, Inc. dated June 12, 2020 and provided in Appendix K of this SCEA. The analysis is

based on LADOT Transportation Assessment Guidelines (TAG) and Appendix G of the CEQA Guidelines from the State of California Governor's Office of Planning and Research. This analysis complies with the City's latest guidelines requiring any development projects that may not be fully entitled prior to July 1, 2020 to be evaluated for transportation impacts in compliance with the CEQA Guidelines in its implementation of Senate Bill 743 which are identified in the TAG. The Los Angeles Department of Transportation (LADOT) approved the methodology of the VMT analysis in correspondence dated June 20, 2020 which is included in Appendix K.

The TAG also identifies "non-CEQA" transportation issues, which include: 1) pedestrian, bicycle, and transit facilities; 2) project access, safety, and circulation; 3) construction traffic; and 4) residential street cut-through analysis. The analyses of these "non-CEQA" issues are not required by CEQA.

However, prior to adoption of the TAG, the Project's potential transportation impacts were previously analyzed based on the level of service (LOS) methodology in Transportation Impact Study (TIS) for the 7940 Lankershim Boulevard Mixed-Use Project, October 2019, which was reviewed and assessed by LADOT in an inter-departmental memorandum to the Los Angeles Department of City Planning (LADCP) dated November 14, 2019. Former LOS-based metrics that evaluated automobile congestion are no longer considered significant environmental impacts in accordance with CEQA Guidelines Section 15064.3. According to LADOT guidance, the TIS satisfies the TAG requirements for non-CEQA analysis. Accordingly, the LOS analysis and other non-CEQA transportation analyses included as part of the TIS are provided for informational purposes only in Appendix K of this SCEA. However, it is acknowledged that traffic data collected as part of the Traffic Study (i.e., roadway segment volumes) was used for purposes of calculating applicable mobile-source noise levels and air quality emissions in Sections 6.3 Air Quality, and Section 6.13 Noise, respectively.

Would the project:

a. Conflict with a program plan, ordinance or policy addressing circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant.

The TAG provides screening questions to determine which plans, policies, and programs apply to the Project. Based on these questions, the following apply to the Project: Mobility Plan 2035; Plan for a Healthy Los Angeles; City of Los Angeles General Plan; the LAMC; Vision Zero; Citywide Design Guidelines; Walkability Checklist; LADOT's Transportation Technology Strategy and Design Standards; Mobility Hub Reader's Guide; and LADOT Manual of Policies and Procedures (Design Standards). The Project's potential to conflict with these programs, plans, policies or ordinances, are discussed below.

Mobility Plan 2035

The Mobility Plan combines "complete street" principles with the following five goals that define the City's mobility priorities:

1. Safety First
2. World Class Infrastructure
3. Access for all Angelenos
4. Collaboration, Communication, and Informed Choices
5. Clean Environments and Healthy Communities

The Project location and site access is consistent with the goals of the Mobility Plan as the Project would be designed to provide safe access for all users. The Project would support the policies of the Mobility Plan as it would promote a balanced transportation system by locating a mixed-use, mixed-income project on an urban infill site within an area containing a mix of commercial, residential, office, and educational uses. The Project would meet the goals of the Mobility Plan and would not interfere with the applicable policies of the Mobility Plan. Thus, the Project would be consistent with the Mobility Plan. The following provides further details of specific policies and programs in the Mobility Plan that were deemed most relevant to the Project.

- **Policy 1.3 Safe Routes to School – Prioritize the safety of school children on all streets regardless of highway classifications.** A number of elementary and middle schools are located within the Project Study Area, including Arminta Street Elementary School and Arminta Street Early Education Center, which are located less than 0.25 miles east of the Project Site. Adjacent to the Project Site, both Lankershim Boulevard and Strathern Street have been identified as part of the pedestrian route to the schools as part of the Safe Routes to School program. Appropriate traffic measures would be installed during construction activities to ensure pedestrian and bicycle safety adjacent to the Project Site.

  Once operational, the Project driveways would be designed and operated to provide safe pedestrian crossings along Strathern Street and Lankershim Boulevard. Further, the Project mitigation program would include measures to improve pedestrian safety throughout the Study Area with the implementation of mobility improvements, such as the installation of continental crosswalks and the installation/maintenance of sidewalks, as well as TSM improvements, such as upgrades of existing pedestrian push buttons to accessible pedestrian signals. Therefore, the Project would not conflict with Mobility Plan Policy 1.3.

- **Policy 2.3 Pedestrian Infrastructure – Recognize walking as a component of every trip and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment.** Pedestrian access to the commercial uses would be provided via pedestrian entrances along Lankershim Boulevard and residential access would be provided via residential lobbies along Lankershim Boulevard and Strathern Street. The Project includes the pedestrian-friendly landscaping and design to enhance the pedestrian experience. The Project would also improve pedestrian facilities throughout the Project area with implementation of the mitigation program's mobility improvements, which include the installation of continental crosswalks and the installation/maintenance of sidewalks, and TSM improvements, which include the upgrades of

existing pedestrian push buttons to accessible pedestrian signals. In addition, the driveways would be designed to provide safe pedestrian crossings, as well as adequate pedestrian flow between driveways along Lankershim Boulevard. Therefore, the Project would not conflict with Mobility Plan Policy 2.3.

- **Policy 2.5 Transit Network – Improve the performance and reliability of existing and future bus service.** The transit system serving the Project Site has available capacity for 530 additional person-transit trips during the morning peak hour and 569 additional person-transit trips during the afternoon peak hour. The Project would generate approximately 41 net new transit trips during the morning peak hour and 56 net new transit trips during the afternoon peak hour, or approximately 10% of the available capacity during the morning or afternoon peak hours. Furthermore, Los Angeles County voters approved Measure R, a half-cent sales tax increase to finance new transportation projects and accelerate projects already in progress, in 2008 and Measure M, an additional half-cent sales tax increase to fund transportation projects, in 2016. As such, the Project's net increase in transit trips would be partially offset by improvements to transit service in the Project area. In addition, as part of the mitigation program, the Project would contribute funding to upgrade bus stops serving the Project Site to encourage the transit ridership, which could include the installation of bus shelters and bus benches. Accordingly, the Project would not cause the capacity of the transit system to be substantially exceeded and the Project would not conflict with Mobility Plan Policy 2.5.

- **Policy 2.6 Bicycle Networks – Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities.** As described in detail in Chapter 2 of the TIS, Lankershim Boulevard adjacent to the Project Site provides marked bicycle lanes and is included as part of the Mobility Plan's Bicycle Network. The Project driveways would be designed to minimize conflicts to bicyclists along Lankershim Boulevard, including providing right-turn only ingress and egress maneuvers. Bicyclists would have the same access opportunities to the Project Site as pedestrians. Bicycle parking requirements per Los Angeles Municipal Code (LAMC) Section 12.21-A,16(a) include short-term and long-term parking. Short-term bicycle parking is characterized by bicycle racks that support the bicycle frame at two points and long-term bicycle parking is characterized by an enclosure protecting all sides from inclement weather and secured from the general public. In accordance with the requirements of LAMC Section 12.21-A, 16(a), the Project would provide 224 bicycle parking spaces, including 30 short-term and 194 long-term bicycle parking spaces. Therefore, the Project would not conflict with Mobility Plan Policy 2.6.

- **Policy 2.9 Multiple Networks** – Consider the role of each enhanced network (i.e., Transit Enhanced Network, Pedestrian Enhanced Districts, and Bicycle Enhanced Network) when designed a street that includes multiple nodes. As discussed above in the analyses for Policies 2.5 and 2.6, the Project would not conflict with Mobility Plan policies related to transit and bicycle networks. As described in the TIS, adjacent to the Project Site, Lankershim Boulevard is identified as part of both the Transit Enhanced Network and Bicycle Network, and both Lankershim Boulevard and Strathern Street are identified as part of the Pedestrian Enhanced Network. As detailed in the TIS, as part of the mitigation program, the Project would contribute funding to upgrade existing bus stops that serve the Project Site, which may include the

installation of bus stop shelters and bus stop benches. With respect to pedestrian facilities, pedestrian access would be provided via sidewalks along Lankershim Boulevard and Strathern Street. Additionally, as noted above, the sidewalk along Strathern Street would be installed and improved to meet City standards. Bicycles would have the same access opportunities as pedestrians and the Project would provide 224 bicycle parking spaces. Project access locations would be required to conform to City standards and would be designed to provide adequate sight distance, sidewalks, and/or pedestrian movement controls that would meet the City's requirements to protect pedestrian safety. The Project would provide a direct and safe path of travel with minimal obstructions to pedestrian movement within and adjacent to the Project Site. Therefore, the Project would not conflict with Mobility Plan policies related to the Transit Enhanced Network, Pedestrian Enhanced Districts, or Bicycle Enhanced Network.

- **Policy 2.10 Loading Area** – Facilitate the provision of adequate on and off-street loading areas. The Project would maintain its existing loading area on-site. As such, delivery trucks would not encroach on or block the public right-of-way. Therefore, the Project would not conflict with Mobility Plan Policy 2.10.

- **Policy 3.2 People with Disabilities – Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way.** Both vehicular and pedestrian access to the Project from the public right-of-way would be designed to meet the standards of the American with Disabilities Act (ADA) requirements. In addition, the Project's mitigation program could include improvements to Strathern Street to provide ADA compliant sidewalks, as well as the upgrade of existing pedestrian push buttons to accessible pedestrian signals at four intersections. Therefore, the Project would not conflict with Mobility Plan Policy 3.2.

- **Program PL.1.** Program PL.1 requires driveway access to buildings from non-arterial streets or alleys (where feasible) in order to minimize interference with pedestrian access and vehicular movement. Due to the location of the Project Site, vehicular driveway access from a non-arterial street or alley would not be feasible. However, the driveways along Lankershim Boulevard and Strathern Street would be designed to minimize potential safety conflicts with bicyclists and pedestrians, and adequate visibility would be provided. Therefore, the Project would not conflict with Mobility Plan Program PL.1.

- **Program PK.10.** Program PK.10 directs the City to establish an incentive program to encourage projects to retrofit parking lots, structures, and driveways to include pedestrian design features. As discussed above, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enhance the pedestrian experience. Therefore, the Project would not conflict with Mobility Plan Program PK.10.

Plan for a Healthy Los Angeles

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (Plan for a Healthy Los Angeles) introduces guidelines for the City to follow to enhance the City's position as

a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

The Project supports healthy lifestyles by reducing single-occupant vehicle trips by virtue of its location near to abundant high-quality and high-frequency transit options and its provision of a TDM program. As part of the mitigation program, the Project would also contribute to the implementation of mobility improvements to promote non-automobile travel throughout the Project area. The Project does not interfere with any other policies recommended by the plan. Therefore, the Project is consistent with Plan for a Healthy Los Angeles.

Land Use Element of the General Plan

The City General Plan's Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. This Project falls within the boundaries of the Sun Valley-La Tuna Canyon Community Plan.

The Project would locate new housing to reduce vehicular trips while increasing accessibility to services and facilities. The Project would be developed at an urban, infill site in proximity to existing residential uses, businesses, services, and numerous transportation options. The new residential population would have access to commercial development on-site as well as retail, restaurant, and other services within walking distance. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses to enhance the pedestrian experience. These features, as well as the Project's proposed TDM program and mobility improvements, would encourage the use of alternative transportation modes. Therefore, the Project would be consistent with the objectives of the Community Plan.

LAMC Section 12.21-A.16

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. In accordance with the requirements of the LAMC, the Project would provide a total 224 bicycle parking spaces, including 30 short-term and 194 long-term bicycle parking spaces.

LAMC Section 12.26-J

LAMC Section 12.26J, the TDM Ordinance establishes TDM requirements for projects with at least 25,000 sf of non-residential gross floor area. The Project proposes approximately 22,000 sf of non-residential gross floor area and, therefore, the TDM Ordinance does not apply.

LAMC Section 12.37

LAMC Section 12.37 pertains to development or expansion of buildings along Highways and Collector Streets and applies to streets designated Boulevard I, Boulevard II, Avenue I, Avenue II, and Avenue III in the Mobility Plan. Lankershim Boulevard is a designated Boulevard II and Strathern Street is a designated Avenue II in the Mobility Plan. Per the Mobility Plan, Lankershim Boulevard adjacent to the Project Site requires a 40-foot half-width roadway within a 55-foot half-

width right-of-way and Strathern Street adjacent to the Project Site requires a 28-foot half-width roadway within a 46-foot half-width right-of-way. Lankershim Boulevard currently meets the standards of a designated Boulevard II. Strathern Street would be improved adjacent to the Project Site with development of the Project to meet the street and right-of-way standards of a designated Avenue II. Thus, the Project would be consistent with the requirements of LAMC Section 12.37.

Vision Zero

The primary goal of Vision Zero is to eliminate traffic deaths in the City by 2025. Vision Zero identifies the High Injury Network, a network of streets where strategic investments will have the biggest impact in reducing death and severe injury. Annually developed Action Plans emphasize creating safe streets for all users, developing a culture of safety, adopting policy measures to promote safety, and using data to inform the most effective solutions. The information from this review comes from Vision Zero Los Angeles: 2018 Action Plan + Progress Report (City, 2018) and LADOT's list of active Vision Zero projects maintained at www.ladotlivablestreets.org.

Lankershim Boulevard and Strathern Street adjacent to the Project Site have been identified as part of the High Injury Network. Neither street has been identified as a Priority Corridor, and no improvements are currently planned along either corridor adjacent to the Project Site. Nevertheless, the Project would not preclude future Vision Zero safety improvements by the City. Thus, the Project does not conflict with Vision Zero.

Citywide Design Guidelines for Residential, Commercial, and Industrial Development

The Citywide Design Guidelines identifies urban design principles to guide architects and developers in designing high-quality projects that meet the City's functional, aesthetic, and policy objectives and help foster a sense of community. Citywide Design Guidelines is organized around six design objectives. City of Los Angeles Urban Design Principles aims to improve mobility in the City through travel mode choices.

The Project would provide a mix of land uses in close proximity to a broad range of land uses and transit options within walking distance, which would stimulate pedestrian activity. The Project would be integrated within the surrounding sidewalks through new ground level commercial uses and amenities, including new street trees and landscaping. Pedestrian connections would be provided throughout the Project Site, connecting residential and common open space uses. In addition, all loading activities would not occur directly within the public right-of-way. Therefore, the Project would align with Citywide Design Guidelines to provide a safe, comfortable, and accessible experience for all transportation modes.

Walkability Checklist

Walkability Checklist – Guidance for Entitlement Review (LADCP, November 2008) (Walkability Checklist) serves as a guide for enhancing pedestrian movement, access, comfort, and safety to contribute to the overall walkability of the City. Transportation-applicable topics include:

- Sidewalks
- Crosswalks/Street Crossings
- On-Street Parking
- Building Orientation
- Off-Street Parking and Driveways

The Project would provide continuous and adequate sidewalks along the Project Site, enhance pedestrian amenities through landscape elements to provide adequate shade and habitat to for a more comfortable mobility environment for pedestrians. Pedestrian connections would be provided throughout the Project Site, connecting residential and common open space uses. These features support the Walkability Checklist recommendations regarding the pedestrian experience.

LADOT Transportation Technology Strategy – Urban Mobility in a Digital Age

The LADOT transportation technology strategy, based on Urban Mobility in a Digital Age: A Transportation Technology Strategy for Los Angeles (Ashley Z. Hand, August 2016), is designed to ensure the City stays on top of emerging transportation technologies as both a regulator and a transportation service provider. This strategy document includes the following goals:

- Data as a Service: Providing and receiving real-time data to improve the City's ability to serve transportation needs
- Mobility as a Service: Improving the experience of mobility consumers by encouraging partnerships across different modes and fostering clear communication between transportation service providers
- Infrastructure as a Service: Re-thinking how the City pays for, maintains, and operates public, physical infrastructure to provide more transparency

LADOT also developed Technology Action Plan (2019) to realize the vision developed in Transportation Technology Strategy. Key action steps include:

- Develop a comprehensive digital inventory of the City's signs, parking meters, curb paint, and regulatory tools
- Continue to develop and maintain the Automated Traffic Surveillance and Control system
- Use active management strategies to dynamically monitor and control things like speed limits, parking availability, detour routes, etc.
- Develop a mobility data specification around which software tools can be developed and data can be accessed

- Develop a transportation tax model that minimizes data collection and retention in favor of user privacy

The Project does not interfere with any of the general policy recommendations, pilot proposals, or action steps set forth in these documents.

Mobility Hub Reader's Guide

Mobility Hubs: A Reader's Guide (LADCP, 2016) provides guidance for enhancing transportation connections and multi-modal improvements in proximity to new or existing transit stations. It specifically focuses on enhancing bicycle connections, providing vehicle sharing services, improving bus infrastructure, providing real-time transit and wayfinding information, and enhancing walkability and pedestrian connections.

The Project adopts several of these components as part of the TDM program, in addition to providing LAMC-required short-term and long-term bicycle parking that both facilitates and encourages bicycling in and around the Project.

LADOT Manual of Policies and Procedures (Design Standards)

Manual of Policies and Procedures (LADOT, December 2008) provides plans and requirements for traffic infrastructure features in the City such as roadway striping and other markings, signage, on-street parking, crosswalks, and turn lanes, as well as the design of driveways for development projects. The Project would not conflict with any of the policies and procedures contained in this document. Additionally, the Project driveways would comply with all applicable LADOT design standards.

Conclusion

Based on the above, the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The Project is consistent with adopted City plans, programs, ordinances and policies regarding the circulation system. Therefore, no mitigation measures are required.

b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

The Vehicle Miles Travelled (VMT) metric is intended to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. This encourages development that shortens the distance between housing, jobs, and services, increases the availability of affordable housing options in proximity to public transit, offers attractive non-vehicular transportation alternatives, provides strong transportation demand management programs, and promotes walking and bicycling trips.

VMT Analysis Methodology

LADOT developed the City of Los Angeles VMT Calculator Version 1.3 (VMT Calculator) to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of one-way trips:

- Home-Based Work Production: origin trips from a residential use to a workplace destination
- Home-Based Other Production: origin trips from a residential use to a non-workplace destination (e.g., retail, restaurant, etc.)
- Home-Based Work Attraction: destination trips to a workplace originating from a residential use

As detailed in City of Los Angeles VMT Calculator Documentation, the household VMT per capita threshold applies to home-based work production and home-based other production trips, and the work VMT per employee threshold applies to home-based work attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT.

Other types of trips included in the VMT Calculator include Non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use), Home-Based Other Attraction (trips to a non-workplace destination originating from a residential use), and Non-Home-Based Other Attraction (trips to a non-residential destination originating from a non-residential use), are not factored into the VMT per capita and VMT per employee thresholds as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips are factored into the calculation of total project VMT for LADOT screening purposes when determining if further VMT analysis for a project would be required.

Project VMT Analysis

The VMT Calculator was used to evaluate Project VMT and compare it to the VMT impact criteria. The VMT Calculator was set up with the Project's four land uses and their respective sizes as the primary input. Based on the Project's proposed land uses and location, the following assumptions were identified in the VMT Calculator:

- Total Population: 1,016
- Total Employees: 60
- APC: North Valley
- TBZ: Suburban Center
- Maximum VMT Reduction: 20%

Commercial VMT. As previously detailed, the Project proposes a total of approximately 22,000 sf in commercial retail and restaurant floor area and would not exceed the LADOT threshold of 50,000 sf of net retail uses to warrant further VMT analysis. In addition, the proposed commercial

uses would be local-serving and, therefore, would not lead to increased VMT. Therefore, the proposed commercial uses of the Project would not result in a significant VMT impact.

Project VMT. It should be noted that as part of the Project design, measures would be implemented to reduce the number of single occupancy vehicle trips to the Project Site. For the purposes of this analysis, PDF TRAF-1 was accounted for in the VMT evaluation:

Project Design Features

PDF TRAF-1

TDM Program. The Project shall develop and implement a TDM program to promote non-auto travel, and reduce the use of single-occupant vehicle trips. The TDM program would be subject to review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

- Educational Programs/On-Site Coordinator. A TDM coordinator would be required to be part of the building management staff that would reach out to employers and employees directly to promote the benefits of the TDM.

- Transportation Information Center/Kiosk. The Transportation Information Center would be a centrally-located commuter information center where project residents can obtain information regarding commute programs, and individuals can obtain real-time information for planning travel without using an automobile. A Transportation Information Center would provide information about transit schedules, commute planning, rideshare, telecommuting, and bicycle and pedestrian plans.

- Project Design Features to Promote Bicycling and Walking. The Project would incorporate features for bicyclists and pedestrians, such as exclusive access points, secured bicycle parking facilities. Pedestrian improvements internal to the Project Site would encourage walking and connect to off-site pedestrian facilities. Additionally, the Project Site would be designed to be a friendly and convenient environment for pedestrians.

- Bikeway Improvements. The Project would contribute funding toward the implementation of bicycle improvements within the Study Area under the 2010 Bicycle Plan and Mobility Plan.

- Reduced Parking Supply: Reduced parking supply to provide less parking than the direct LAMC requirement without consideration of additional parking reductions mechanisms (i.e., Bicycle Parking Ordinance, Specific Plan or Enterprise Zone areas, etc.)

PDF TRAF-2: Mobility Improvement Program: The mobility improvement plan for the Project would include the following improvements:

- **Installation of Continental (High Visibility) Crosswalks:** The following four study intersections have been identified as locations where continental (high visibility) crosswalks would be installed:

- 4. Webb Avenue & Roscoe Boulevard
- 6. Laurel Canyon Boulevard & Strathern Street
- 9. Vineland Avenue & Strathern Street
- 12. Tujunga Avenue & Saticoy Street

The Project would install continental (high visibility) crosswalk markings such as white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection. Additionally, continental (high visibility) crosswalks would include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk.

- **Installation and Maintenance of Sidewalks:** One key corridor has been identified within the Study Area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. The Project would improve this segment of Strathern Street to include widening, paving, and clearly marking sidewalk and curb space.
- **Installation of Bus Stop Shelters:** The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, would be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage.
- **Installation of Bus Stop Benches**: The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, would be improved with the installation of a bus stop bench. The bus stop currently only provides transit signage.

PDF TRAF-3: TSM Improvements. The Project would fund TSM improvements within the Study Area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with LADOT, the following TSM improvements would be implemented:

- Upgrade existing traffic signal controller cabinets to Type 351/2/6/7 cabinets
  - 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
  - 10.Lankershim Boulevard & Stagg Street
  - 11. Lankershim Boulevard & Saticoy Street
  - Replacement of existing video fibers with a 24-strand signal mode fiber cable
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
- Upgrade existing pedestrian push buttons to accessible pedestrian signals
  - 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street

- 10. Lankershim Boulevard & Stagg Street
- 11. Lankershim Boulevard & Saticoy Street.

As shown in Table 6-42, with application of the TDM strategies listed above, the VMT Calculator estimates that the Project would generate 6,594 total household VMT. Thus, based on the population assumptions above, the Project would generate an average household VMT per capita of 6.5, which would not exceed the significance thresholds for the North Valley APC (9.2 household VMT per capita).

Without application of any TDM strategies, the Project would generate average household VMT per capita of 7.6, thus falling below the North Valley APC significance threshold (9.2 household VMT per capita). Therefore, implementation of TDM strategies as either project design features or mitigation is not required for the Project.

The Project would continue to implement Project Design Features identified in the TIS that would further reduce Project VMT including the implementation of a comprehensive TDM program to reduce single occupancy vehicle trips to and from the Project Site, contributions toward TSM improvements to better facilitate pedestrian operations, and off-site mobility improvements to encourage non-auto travel.

TABLE 6-42
VMT EVALUATION TABLE

Project		Project with Project Design Features	
Project Information		**VMT Reduction with TDM Strategies**	
Project Land Uses		**Reduced Parking Supply**	
Housing | Multi-Family	384 du	Code Requirement [c]	964
Housing | Affordable - Family	48 du	Parking Supply [d]	541
Retail | Pharmacy/Drugstore	14,000 sf	**VMT Reduction [e]**	**12.500%**
Retail | High-Turnover Restaurant	8,000 sf		
		Bicycle Parking per LAMC	
Total Population	1,016	**Yes/No**	**Yes**
Total Employees	60	**VMT Reduction**	**0.625%**
Area Planning Commission	**North Valley**	**Pedestrian Improvements**	
Household VMT Impact Threshold	9.2	Yes/No	Yes
Work VMT Impact Threshold	15.0	**VMT Reduction**	**2.000%**
Travel Behavior Zone	**Suburban Center**	**Total VMT Reduction**	**14.8%**
Maximum TDM Reduction	20%		
Adjusted VMT without TDM Strategies [a]		**Adjusted VMT with Project Design Features**	
Household VMT		**Household VMT**	
Home-Based Work Production	2,828	Home-Based Work Production	2,410
Home-Based Other Production	4,910	Home-Based Other Production	4,184
Total Household VMT	**7,738**	**Total Household VMT**	**6,594**
Total Population	**1,016**	**Total Population**	**1,016**
Household VMT per Capita	**7.6**	**Household VMT per Capita**	**6.5**
Significant Impact	**NO**	**Significant Impact**	**NO**
Work VMT		**Work VMT**	
Home-Based Work Attraction	686	Home-Based Work Attraction	585
Total Work VMT	**686**	**Total Work VMT**	**585**
Total Employees	**60**	**Total Employees**	**60**
Work VMT per Employee	**11.4**	**Work VMT per Employee**	**9.8**
Significant Impact	**N/A [b]**	**Significant Impact**	**N/A [b]**

[a] Adjusted VMT based on calculations from the City of Los Angeles VMT Calculator Version 1.3 (LADOT, May 2020), as provided in the Attachment, and accounts for the synergy between land uses of a mixed-use development.

[b] The Project is proposing less than 50,000 sf of commercial retail/restaurant uses. Therefore, the commercial component of the Project is considered to be local-serving, and would not increase work VMT. Thus, the Project would not result in a significant work VMT impact.
[c] The Code Parking Requirement is based on the direct application Los Angeles Municipal Code (LAMC) rates without consideration of reduction mechanisims permitted in LAMC.
[d] The Project's Reduced Parking Supply was calculated with consideration of Section 65915(k) of California Government Code (California Office of Legislative Counsel for the Legislature, effective January 2017), LAMC Section 12.21.A4(x)(3), and LAMC Section 12.21.A4.
[e] The VMT reduction related to a reduced parking supply reflects the maximum allowable VMT reduction of 12.5%.

Conclusion

Impacts would be less than significant.

c. Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

As further detailed below, based on the Project site plan review and design assumptions, the Project does not present any geometric design hazards related to traffic movement, mobility, or pedestrian accessibility, and no significant impact would occur.

Vehicles

Vehicular access to the parking facilities would be provided via driveways along Lankershim Boulevard, a designated Boulevard II, and Strathern Street, a designated Avenue II. The driveway on Strathern Street would provide access to the residential uses, while the driveway on Lankershim Boulevard would provide access to both the residential and commercial uses on-site. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. All driveways would be designed in accordance with City standards.

The driveway on Strathern Street would provide full access and accommodate both left- and right-turn ingress and egress maneuvers. Given the adjacency to existing intersections and the level of adjacent street traffic, the commercial/residential and pharmacy drive-through driveways on Lankershim Boulevard would provide limited access and accommodate right-turn only ingress and egress maneuvers to minimize potential vehicular conflicts along Lankershim Boulevard. The driveways would also be located more than 250 feet apart to minimize vehicular conflicts between the two driveways. The pharmacy drive-through would be designed to minimize queuing and limit spillover on the adjacent street system. In addition, all truck loading and unloading activity would occur on-site, and no vehicles would reverse into the Project Site from the public right-of-way.

Therefore, as detailed above, the vehicular access and internal circulation plan for the Project would be designed to minimize vehicular conflicts, and safety impacts to the abutting street system are not anticipated.

Pedestrians & Bicycles

Bicycle and pedestrian access to the commercial uses would be provided via pedestrian entrances along Lankershim Boulevard and residential access would be provided via residential lobbies along Lankershim Boulevard and Strathern Street. Both Lankershim Boulevard and Strathern Street have been identified as part of Vision Zero's High Injury Network and the Mobility Plan's Pedestrian Enhanced Network. The Project would improve pedestrian facilities adjacent to the Project Site, as well as throughout the Project area as part of the Project mitigation program's mobility improvements, which include the installation of continental crosswalks and the

installation/maintenance of sidewalks. In addition, the driveways would be designed to provide safe pedestrian crossings, as well as adequate pedestrian flow between driveways along Lankershim Boulevard.

The driveways would cross the existing bicycle lane on Lankershim Boulevard, which carries fewer than 10 bicyclists during each peak hour. Therefore, given the limited access and minimal bicycle traffic, the driveway would not pose a safety hazard to bicyclists.

Conclusion

Impacts would be less than significant.

c. Result in inadequate emergency access?

Construction

Construction activity would add traffic to the local and regional transportation systems through the hauling of excavated materials and debris, the transport of construction equipment, the delivery of construction materials, and travel by construction workers to and from the Project Site.

Excavating and Grading Phase

It is anticipated that the peak period of truck activity during construction would occur during excavation and grading of the Project Site. Based on projections approximately 89,000 cubic yards (CY) of material would be excavated and removed from the Project Site over a 40-workday period.

Based on estimates from the Applicant, this period would require up to 139 haul trucks per day. It is also anticipated that up to 55 vendor trucks would arrive to the Project Site per day during the excavation and grading phase. Thus, up to 388 daily truck trips (194 inbound, 194 outbound) are forecast to occur during the excavation and grading period, or approximately 66 trips per hour (33 inbound, 33 outbound) if occurring uniformly over a typical six-hour haul period within the typical construction activity hours of 7:00 AM and 3:00 PM. Transportation Research Circular No. 212 defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Assuming a PCE factor of 2.0, the 388 truck trips would be equivalent to 776 daily PCE trips. The 66 hourly truck trips would be equivalent to 132 PCE trips (66 inbound, 66 outbound) per hour.

It is also anticipated that 14 construction worker vehicles would arrive and depart from the Project Site each day. Therefore, the 14 construction workers vehicles would result in a total of 28 construction worker vehicle trips that would arrive and depart from the Project Site each day.

With the implementation of the Construction Management Plan, included as PDF TRAF-4 it is anticipated that haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours where feasible. In addition, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the excavation and grading phase of construction.

Building Construction Phase

According to projections, the number of daily trips associated with the construction workers is approximately 85 construction worker vehicles would be on-site per day during the building construction phase. Therefore, the estimated number of daily trips associated with the construction workers is approximately 170 (85 inbound and 85 outbound trips), but nearly all of those trips would occur outside of the peak hours. As such, the building construction phase is not expected to result in a significant traffic impact at any of the study intersections.

During construction, adequate parking for construction workers would be secured on-site. Workers will be restricted from parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site.

As part of the Project, a detailed Construction Management Plan, included as PDF TRAF-4, would be provided. The Construction Management Plan would include a prohibition on construction-related vehicles/equipment parking on surrounding public streets, safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers, installation of appropriate traffic signs around the Project Site, spacing of trucks so as to discourage a convoy effect, identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities, and other measures. The Construction Management Plan would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

Project Design Feature

PDF TRAF-4: The Applicant shall prepare a detailed Construction Management Plan that shall include, but not be limited to, the following elements, as appropriate:

- Prohibition on construction-related vehicles/equipment parking on surrounding public streets.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
- Installation of appropriate traffic signs around the Project Site to ensure pedestrian, bicycle, and vehicle safety.
- No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route.
- Spacing of trucks so as to discourage a convoy effect.
- Installation of truck crossing signs within 300 feet of the exit of the Project Site in each direction.

- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind.
- Securing of loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Cleaning of trucks and loads at the export site to prevent blowing dirt and spilling of loose earth.
- Maintenance of a log documenting the dates of hauling and the number of trips (i.e., trucks) per day available on the job site at all times.
- Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

The Project Site is located in urban area that is well served by a roadway network. Long-term emergency access would continue to be provided with development of the Project. The Project driveway and building configurations would comply with applicable fire code requirements for emergency evacuation, including proper emergency exits for residents, employees, and patrons. The Project site access and circulation plans would be subject to review and approval by the Los Angeles Fire Department.

As detailed in the TIS, construction activities are expected to be primarily contained within the Project Site boundaries. Encroachments into the public right-of-way (e.g., sidewalks) adjacent to the Project Site along Strathern Street are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained on both Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded.

Conclusion

Project impacts related to emergency access would be less than significant and no mitigation would be required.

California Department of Transportation (Caltrans) Analysis

Recently, LADOT issued Interim Guidance for Freeway Safety Analysis (LADOT, May 1, 2020) (City Freeway Guidance) identifying City requirements for a CEQA safety analysis of Caltrans facilities as part of a transportation assessment.

Methodology

The City Freeway Guidance relates to the identification of potential safety impacts at freeway off-ramps as a result of increased traffic from development projects. It provides a methodology and significance criteria for assessing whether additional vehicle queueing at off-ramps could result in a safety impact due to speed differentials between the mainline freeway lanes and the queued vehicles at the off-ramp.

Based on the City Freeway Guidance, a transportation assessment for a development project must include analysis of any freeway off-ramp where the project adds 25 or more peak hour trips. A project would result in a significant impact at such a ramp if each of the following three criteria were met:

1. Under a scenario analyzing future conditions upon project buildout, with project traffic included, the off-ramp queue would extend to the mainline freeway lanes.

2. A project would contribute at least two vehicle lengths (50 feet, assuming 25 feet per vehicle) to the queue.

3. The average speed of mainline freeway traffic adjacent to the off-ramp during the analyzed peak hour(s) is greater than 30 miles per hour.

Should a significant impact be identified, mitigation measures to be considered include TDM strategies to reduce a project's trip generation, investments in active transportation or transit system infrastructure to reduce a project's trip generation, changes to the traffic signal timing or lane assignments at the ramp intersection, or physical changes to the off-ramp. Any physical change to the ramp would have to improve safety, not induce greater VMT, and not result in secondary environmental impacts.

Analysis

As determined in the screening evaluation prepared as part of the MOU and detailed in the TIS, the Project would not add 25 or more peak hour trips to any freeway off-ramp locations. Therefore, no further Caltrans freeway off-ramp queuing analysis is required. Furthermore, the Project would not result in a significant safety impact, and no corrective measures at any freeway off-ramps would be required.

Conclusion

The Project is consistent with the City's plans, programs, ordinances, and policies and would not generate any VMT, geometric design hazard, or emergency access impacts. Therefore, the Project would not result in a significant and unavoidable CEQA impact. In addition, the Project would not result in a significant safety impact on any Caltrans freeway off-ramp facilities.

Cumulative Impacts: Transportation

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with nearby related projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. In accordance with the TAG, the cumulative analysis must include consideration of any Related Projects within 0.25 miles of the Project Site and any transportation system improvements in the vicinity. The TIS considered Related Projects located within a 1.5-mile radius of the Project Site.

None of the related projects identified in the TIS are located within 0.25 miles of the Project Site. Nevertheless, each of the related projects considered in this cumulative analysis of consistency with programs, plans, policies, and ordinances would be separately reviewed and approved by the City, including a check for their consistency with applicable policies. Collectively, the Project and the related projects add high-density development in a major commercial area with high-quality transit options and high levels of pedestrian activity. Therefore, the Project, together with the related projects identified in the TIS, would neither create inconsistencies nor result in cumulative impacts with respect to the identified programs, plans, policies, and ordinances.

The related projects would have a cumulative VMT impact if it were deemed inconsistent with The 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy (Southern California Association of Governments, April 2016) (RTP / SCS), the regional plan to reach state air quality and greenhouse gas reduction targets. However, based on the TAG, a project that does not result in a significant VMT impact by applying an efficiency-based impact threshold (i.e., using the City's methodology described above), would be in alignment with the RTP/SCS and, therefore, would not result in a cumulative VMT impact. Therefore, based on the conclusions above, the Project would not result in a significant cumulative VMT impact.

In addition, the Project is located within a Transit Priority Area as defined by the City and a High-Quality Transit Area as defined by the RTP/SCS. The Project's specific location in close proximity to high-quality transit and other off-site retail, restaurant, commercial, and residential areas, along with its highly walkable environment, support the conclusion that the Project would achieve a VMT reduction greater than the average for the area, as concluded in the Project VMT analysis provided above.

None of the related projects provide access along the same block as the Project. Thus, cumulative impacts related to increasing hazards due to a geometric design feature or incompatible use related would be less than significant

Any driveway and/or circulation modifications proposed within or adjacent to the related projects would meet all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access. Cumulative impacts on traffic associated with construction (e.g., an intermittent reduction in street and intersection operating capacity) are typically considered adverse in the short-term, but not a significant impact.

Each related project would be required to comply with City requirements regarding haul routes and would implement mitigation measures and/or include project characteristics, such as traffic controls

and safety procedures, as part of a Construction Management Plan, to reduce potential traffic impacts during construction. As detailed in the TIS, cumulative traffic impacts, with consideration of trips generated by the Related Projects, would be less than significant with implementation of the Project's mitigation program. Also, pursuant to California Vehicle Code Section 21806, emergency vehicles are generally able to avoid traffic congestion in the event of an emergency by using sirens to clear a path of travel or by driving in the lanes of opposing traffic.

Therefore, the Project and the Related Projects would not result in a significant impact to emergency access, and the cumulative impacts would be considered less than significant.

Conclusion

Cumulative traffic and transit impacts would be less than significant.

6.18 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. ICF contacted the Native American Heritage Commission (NAHC) on March 22, 2019, to request a search of the Sacred Lands File. The Sacred Lands File contains records of sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted again on April 8, 2019. The NAHC responded, saying that the search request had been received and was being processed. The NAHC was contacted for a third time on April 25, 2019. The NAHC responded on April 30, 2019, indicating that the search of its Sacred Lands File yielded negative results.

In accordance with AB 52 and PRC Section 21080.3.1, the Los Angeles Department of City Planning contacted Native American groups. On March 18, 2019, the City sent consultation letters to 10 Native American tribal representatives. In addition, coordination was initiated with the NAHC in connection with the Project on March 22, 2019. On the recommendation of the NAHC, on May 6, 2019, the Los Angeles Department of City Planning sent letters to 10 other Native American

contacts, classified by the NAHC as potential sources of information. The letters advised the tribes and specific individuals identified about the Project and its geographic area and requested information regarding cultural resources within the study area as well as feedback or concerns related to the Project.

On March 18, 2019 and May 6, 2019, City of Los Angeles Department of City Planning issued two letters in conformance with the tribal consultation requirements of Assembly Bill (AB) 52. The letters were to inform the tribes that the Department is reviewing the Project that they have a right to consult on the Project prior to the release of any environmental document.

On March 22, 2019, the Gabrielino Band of Mission Indians – Kizh Nation requested consultation. On April 15, 2019, the Fernandeno Tataviam Band of Mission Indians (FTBMI) requested consultation.

City of Los Angeles Department of City Planning initiated consultation with both tribes and made them aware of the Records Search Results (Records Search File No. 20232.6204) and the Vertebrate Paleontology Records for the site as indicated in documents dated May 6, 2019 and May 16, 2019. On June 5, 2019, the City of Los Angeles Department of City Planning initiated consultation over the phone with the Gabrielino Band of Mission Indians – Kizh Nation. On June 20, 2019, the City of Los Angeles Department of City Planning initiated consultation over the phone with the FTBMI. Both tribes requested information regarding grading and impacts to soils and indicated they would get back to the Department with final comments. On August 12, 2019, the City of Los Angeles closed consultation with both tribes and mailed a letter which concluded that mutual agreement could not be reached for purposes of AB 52. Based upon the record, the City determined that no substantial evidence exists to support a conclusion that the Project may cause a significant impact on tribal cultural resources. Therefore, the City has no basis under CEQA to impose any related mitigation measures.

TABLE 6-43
SUMMARY OF AB 52 CONSULTATION

Name and Title	Tribe	Contact Details	Results
Jairo F. Avila, M.A., RPA, tribal historic and cultural preservation officer	Fernandeño Tataviam Band of Mission Indians	Contacted by mail on March 18, 2019. Responded on April 15, 2019.	Mr. Avila requested tribal consultation regarding the Project.
Charles Alvarez, co-chairperson	Gabrielino/Tongva Tribe	Contacted by mail on March 18, 2019.	No response
Robert F. Dorame, tribal chair	Gabrielino/Tongva Indians of California	Contacted by mail on March 18, 2019.	No response
Sam Dunlap, cultural resources director	Gabrielino/Tongva Nation	Contacted by mail on March 18, 2019.	No response
Sandonne Goad, chairperson	Gabrielino/Tongva Nation	Contacted by mail on March 18, 2019.	No response

Name and Title	Tribe	Contact Details	Results
Anthony Morales, chairperson	Gabrieleno/Tongva San Gabriel Band of Mission Indians	Contacted by mail on March 18, 2019.	No response
Joseph Ontiveros, cultural resource director	Soboba Band of Luiseno Indians	Contacted by mail on March 18, 2019.	No response
Andrew Salas, chairperson	Gabrieleño Band of Mission Indians-Kizh Nation	Contacted by mail on March 18, 2019. Responded on March 22, 2019.	Mr. Salas replied by letter, indicating that the tribe would like to consult with the City to avoid the potential risk to tribal resources.
John Valenzuela, chairperson	San Fernando Band of Mission Indians	Contacted by mail on March 18, 2019.	No response
Michael Mirelez, cultural resource coordinator	Torres Martinez Desert Cahuilla Indians	Contacted by mail on March 18, 2019.	No response
Julie Tumamait-Stennslie, chairperson	Barbareno/Ventureno Band of Mission Indians	Contacted by mail on May 6, 2019.	No response
Charles Alvarez, co-chairperson	Gabrielino/Tongva Tribe	Contacted by mail on May 6, 2019.	No response
Julio Quair, chairperson	Chumash Council of Bakersfield	Contacted by mail on May 6, 2019.	No response
Fred Collins, spokesperson	Northern Chumash Tribal Council	Contacted by mail on May 6, 2019.	No response
Gino Altamirano, chairperson	Coastal Band of the Chumash Nation	Contacted by mail on May 6, 2019.	No response
Mark Vigil, chief	San Luis Obispo County Chumash Council	Contacted by mail on May 6, 2019.	No response
Rudy Ortega, tribal president	Fernandeno Tataviam Band of Mission Indians	Contacted by mail on May 6, 2019.	No response
Kenneth Kahn, chairperson	Santa Ynez Band of Chumash Indians	Contacted by mail on May 6, 2019.	No response
Robert Dorame, chairperson	Gabrielino/Tongva Indians of California Tribal Council	Contacted by mail on May 6, 2019.	No response
Mona Tucker, chairperson	yak tit^{Y}u yak tiłhini Northern Chumash Tribe	Contacted by mail on May 6, 2019.	No response

Conclusion

Impacts would be less than significant and no mitigation is required.

Cumulative Impacts: Tribal Cultural Resources

Impacts related to tribal cultural resources tend to be site-specific and are assessed on a site-by-site basis. Many of the cumulative projects identified would require redevelopment of properties in urban areas that are currently developed and have been previously disturbed, and the potential to encounter and cause a significant impact on tribal cultural resources is diminished. The City would require the applicants of each of the related projects to assess, determine, and mitigate any potential impacts related to tribal cultural resources that could occur as a result of development, as necessary. As discussed previously, through compliance with existing laws, including AB 52, and the City's conditions of approval, project impacts associated with tribal cultural resources would be less than significant. However, the occurrence of these impacts would be limited to the Project Site and would not contribute to any potentially significant cultural resources impacts that could occur at the sites of the related projects. As such, the Project would not contribute to any potential cumulative impacts related to tribal cultural resources.

Conclusion

Cumulative impacts related to tribal cultural resources would be less than significant.

6.19 Utilities and Service Systems

The following impact analysis pertaining to utilities and service systems includes information contained in the Sewer Capacity Availability Report (SCAR) processed by the City of Los Angeles Bureau of Engineering on August 14, 2019, the Service Advisory Request (SAR) from the City of Los Angeles dated March 11, 2019, and the description of existing and proposed topography/drainage and infrastructure for the Project Site prepared by Zeitouny & Associates. These are included in Appendix G of this SCEA.

Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?

Water

Less Than Significant Impact. The facilities required to serve the Project Site include the large distribution system operated by the LADWP as well local infrastructure to meet the needs of the Project Site. As discussed under Item 6.19.b, below, LADWP can provide the needed water from its existing system pursuant of the provisions in the City of Los Angeles Urban Water Management Plan (UWMP) 2015. Therefore, LADWP would not require added facilities to meet the demand from the Project.

Regarding the local infrastructure, the Project consists of a mixed-use development that includes commercial and residential uses. Based on the Service Advisory Request (SAR), LADWP would provide the Project with domestic and fire water supplies. The LADWP's SAR reports that the 12-inch water main line in Lankershim Boulevard has a maximum pressure of 160 psi. Two existing fire hydrants are located near the Project Site. One fire hydrant is located at the corner of Blythe Street and Lankershim Boulevard across from the Project Site. A second fire hydrant is located on Strathern Street, north of the Project Site. According to the LAFD, the required fire-flow that would serve the project is at 6,000 to 9,000 gallons per minute (GMP) from four to six fire hydrants flowing simultaneously. The proposed sizes and locations for the domestic water and fire water points of connection would be determined by the Plumbing engineer and Fire Sprinkler engineer, respectively, during design. The locations of the fire department connection would be determined based on feedback from the City of Los Angeles Fire Department. LADWP would be coordinated with accordingly based on the final location of both domestic water and fire water points of connection.

Based on the results provided by the LADWP within the SARs dated March 11, 2019, (Appendix G), the existing water main line would have sufficient capacity to serve the Project's or 95.9 acre-feet per year (afy) demand. Therefore, there would be adequate capacity available to accommodate the required fire flows and domestic water demand generated by the Project and the Project would not require the relocation or construction of new or expanded water facilities.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

Wastewater

Less Than Significant Impact. Wastewater in the City is collected and conveyed by three separate sanitary sewer systems owned and operated by the Los Angeles Department of Public Works, Bureau of Sanitation. These systems convey wastewater via approximately 6,439 miles of gravity mains, 33 miles of force mains, and 46 pumping plants. Currently, an average wastewater flow rate of approximately 272 million gallons per day (MGD) is generated in the entire City's sewer system. The largest of these, the Hyperion Sanitary Sewer System, encompasses the majority of the City. The Hyperion Sanitary Sewer System is a network of approximately 6,043 miles of gravity-fed sewer laterals and mains, pressurized mains, pump stations, treatment plants, and outfalls in the Pacific Ocean. Correspondence with LAFD, December 2019, Ralph M. Terrazas, Fire Chief. December 19, 2019.[97] Wastewater generated within the North Hollywood area, including from the Project Site, is conveyed through the Hyperion Sanitary Sewer System and treated at the Hyperion Water Reclamation Plan (HWRP).

As noted in the City of Los Angeles Department of Public Works, Sewer System Management Plan dated January 25, 2019, the City's sewer collection system has sufficient capacity to handle peak

[97] City of Los Angeles Department of Public Works, Sewer System Management Plan, January 25, 2019 https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdm1/~edisp/cnt035427.pdf Accessed August 27, 2019.

dry-weather flows. Beginning in December 2011, California began experiencing the longest duration of drought on record. The drought has led to increased water conservation measures throughout the City over the past seven years. This has led to significant reductions in wastewater flows conveyed by the City's collection system. As such, wastewater flow at Hyperion went from approximately 350 million gallons per day (mgd) in 2008 to 260 mgd average daily flow in 2018. [98]

Because the amount of wastewater entering the HWRP can double on rainy days, the plant was designed to accommodate both dry and wet weather days with a maximum daily flow of 450 mgd and a peak wet weather flow of 800 mgd.[99] Accordingly, there is a residual daily flow capacity of 190 mgd.

Through hydraulic condition assessment, population forecast, and modeling, the City identifies the current sewer capacity needs and predicts future requirements and develops capital improvement projects to address them. Flow gauging data is recorded in a computer-based network database, analyzed, and displayed in GIS map overlays, tables and other forms for evaluation and decision-making. When the peak flow in a sewer reaches a predetermined level, it triggers a planning study that is initiated in time to ensure that additional capacity is provided to meet future demands before the sewer d/D (ratio of flow depth to pipe diameter) reaches 0.75 in conformance with the City's Sewer Design Manual criteria. [100]

The existing public sanitary sewer main lines near the Project Site are maintained by the City of Los Angeles Department of Public Works, Bureau of Sanitation. Two existing main lines exist near the Project Site including an 8-inch vitrified clay pipe (VCP) running in North Lankershim Boulevard running north to south and an 8-inch VCP in Strathern Street running west to east.

Construction

Construction of the Project would include all connections necessary to adequately link the Project to the existing City sewer system. The necessary improvements would be verified through the permit approval process of obtaining a sewer capacity and connection permit from the City. Construction-related impacts would be temporary and within the scope of the impacts evaluated in this SCEA.

During Project construction, a negligible amount of wastewater would also be generated by construction workers using portable toilets provided at the Project Site. These portable toilets would

[98] City of Los Angeles Department of Public Works, Sewer System Management Plan, January 25, 2019 https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdm1/~edisp/cnt035427.pdf Accessed August 27, 2019.

[99] https://www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=and9syb5r_447&_afrLoop=8112403632203108&_afrWindowMode=0&_afrWindowId=cb2tntkfa#!%40%40%3F_afrWindowId%3Dcb2tntkfa%26_afrLoop%3D8112403632203108%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dand9syb5r_451 August 27, 2019

[100] City of Los Angeles Department of Public Works, Sewer System Management Plan, January 25, 2019 https://www.lacitysan.org/cs/groups/public/documents/document/y250/mdm1/~edisp/cnt035427.pdf Accessed August 27, 2019.

be provided by a private company and the waste would be disposed off-site. Wastewater generation from construction activities is not anticipated to cause a measurable increase in wastewater flows at a point where, the City's sewer's capacity would become constrained. Additionally, construction is not anticipated to generate wastewater flows that would substantially or incrementally exceed the future scheduled collection of the Hyperion Treatment Plant (HTP). As such, impacts would be less than significant and no mitigation measures are required.

Operations

As shown in Table 6-44, *Estimated Wastewater Generation*, implementation of the Project would generate approximately 72,220 gallons per day (gpd). Netting out the estimated existing wastewater generated on the Project Site, the Project would generate 71,353 gpd beyond existing conditions, or 0.059 mgd.

TABLE 6-44
ESTIMATED WASTEWATER GENERATION

Land Use	Sewage Generation Rate	Quantity	Total Generation
Existing Uses[a]			
Existing Office	150/1000 gpd/sf	1,600	240 gpd
Existing Commercial	80/1000 gpd/sf	7,830	626.6 gpd
Total Existing			**866.6** gpd
New Uses (Project)[b]			
Residential Apartment – One Bedroom	110 gpd/du	72 du	7,920 gpd
Residential Apartment – Two Bedroom	150 gpd/du	180 du	27,000 gpd
Residential Apartment – Three Bedroom	190 gpd/du	180 du	34,200 gpd
Retail Uses	50 gpd/sf	14,000 sf	700 gpd
Restaurant: Full service indoor seat	30 gpd/seat	80 seats	2,400 gpd
		Total New	**72,220 gpd**
Project – Existing Uses		**Total Net**	**71,353 gpd**

Notes:
gpd = gallons per day; du = dwelling unit; sf = square feet
Sources:
[a]: City of Los Angeles Sewer Generation Factors, Exhibit M2-12, City of LA CEQA Threshold Guide. 2006
[b] Sewer Capacity Availability Report (SCAR) processed by the City of Los Angeles Bureau of Engineering on August 14, 2019

Given the current remaining 190 mgd daily flow capacity of the HWRP, the HWRP would have ample capacity to treat the Project's wastewater generation, at 0.059 mgd, which would account for a less than one percent increase in demand at the HWRP. As concluded in the SCAR (Appendix G) conclusions and given existing and anticipated future capacity at the wastewater treatment facilities, the Los Angeles Department of Public Works, Bureau of Sanitation would have adequate capacity to serve the Project, and the Project would not require the relocation or construction of new or expanded wastewater facilities.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

Stormwater

Less Than Significant Impact. The existing Project Site is 4.7 percent impervious and the Project would have an impervious area percentage of 20 percent, which represents an increase of 15.3 percent from existing conditions. As discussed in Item 6.10, *Hydrology and Water Quality* above, the Project would be designed to comply with the City of Los Angeles's LID design standard. The proposed stormwater BMPs would include development of a dry well for stormwater runoff. Project construction would comply with applicable NPDES and City requirements including those requiring the preparation of a Project-specific SWPPP. Pursuant to the City's LID Ordinance, the Project would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's BMPs. As described earlier, proposed stormwater BMPs would include development of a dry well for stormwater runoff that would meet the City of Los Angeles' stormwater capture and reuse criteria and LID design standards.

Drainage structures and improvements within the City are subject to review and approval by the City's Department of Public Works and Department of Building and Safety. As required by the Department of Public Works, all public storm facilities must be designed in conformity with the standards set forth by Los Angeles County. The Department of Public Works reviews and approves Municipal Separate Storm Sewer Systems (MS4) plans prior to construction. Any proposed increases in discharge directly into County facilities, or proposed improvements of County-owned MS4 facilities, such as catch basins and drainage lines, require approval from County Flood Control to ensure compliance with the County's Municipal NPDES Permit requirements.

Environmental impacts associated with the development of the Project, including on-site drainage facilities, have been evaluated throughout this SCEA. As concluded herein, all potentially significant impacts associated with development of the Project, including on-site stormwater drainage facilities would be less than significant. Therefore, the Project would not require the relocation or construction of new or expanded stormwater facilities.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

Electricity

Less Than Significant Impact. As discussed in Section 6.6, *Energy*, there would be electrical usage from a variety of sources including electricity associated with the residential and commercial uses on-site, and off-site water treatment and distribution. Electricity transmission for the Project Site is provided by LADWP which serves approximately 3.8 million people and is the nation's

largest municipal electric utility.[101] As discussed in Section 6.6, *Energy*, LADWP is fully resourced to meet peak demand but maintains transmission and wholesale marketing operations to keep production costs low and increase system reliability. LADWP's September 2017 forecast indicates that its total energy sales in the 2023-2024 fiscal year (the Project's opening year) will be 23,033 gigawatt hours (GWh).[102] LADWP continues to increase the use of renewable energy to meet customer needs, and has a goal to meet 33 percent renewable energy in December 2020 and 60 percent by December 2030 utilizing wind, solar, geothermal, and biomass energy sources.

As discussed in Section 6.6, *Energy*, when compared to the LADWP's projected sales in 2023 of 23,003 GWh per year, the Project's electricity demand would represent approximately 0.015 percent of total demand. This amount is negligible and is within the anticipated service capabilities of LADWP. The estimated power requirements for the Project is part of the total load growth forecast for the City of Los Angeles and has been taken into account in the planned growth of the City's power system.

As discussed above, the Project would be required to comply with energy conservation standards pursuant to Title 24 of the California Administrative Code. The Project would also be required to comply with the L.A. Green Building Code, which incorporates by reference the CALGreen Code. The L.A. Green Building Code, effective January 1, 2017, requires the use of numerous conservation measures, beyond those required by Title 24 of the California Administrative Code. The L.A. Green Building Code contains both mandatory and voluntary green building measures to conserve energy. Among many requirements, the L.A. Green Building Code requires projects to achieve a 20 percent reduction in wastewater generation. To comply, the Project would include energy conservation features. Specifically, the residential units would include energy efficient lighting fixtures, ENERGY STAR-rated appliances, low-flow water features, and energy efficient mechanical heating and ventilation systems. The Applicant is also proposing to install solar panels on the roof level. Thus, the Project would incorporate energy conservation features. Additionally, LADWP would confirm the availability of electric service for the Project.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

Natural Gas

Less Than Significant Impact. As discussed in Section 6.6, *Energy*, natural gas for the Project Site is provided by Southern California Gas Company (SCG). According to the 2019 California Gas Report Supplement, the annual gas supply delivered by SCG in 2018 was 2,342 million cubic

[101] Los Angeles Department of Water & Power (LADWP) (2017), Power Strategic Long-Term Resource Plan. Available at https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc;jsessionid=mGT9dXPJdnB5n24XLvSlG1pNTrJ0FHXGFpRNlsH16NF4gcLnZWyf!-1249535111?_adf.ctrl-state=d7jp385ep_4&_afrLoop=70435002221502&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D70435002221502%26_afrWindowMode%3D0%26_adf.ctrl-state%3Du7exxlb3u_4. Accessed August 15, 2019.

[102] Ibid., Appendix A, pg. 34

feet (MMcf)/day.[103] The demand for total natural gas is expected to decrease at an annual rate of 0.74 percent per year from 2018 to 2035.[104] This decrease is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, tighter standards created by revised Title 24 Codes and Standards, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI). Thus, with the natural gas consumption becoming more efficient and decreasing, the SCG's projection for natural gas also decreases. As shown in Table 6-11, the natural gas consumption as a result of the operation of the Project would be approximately 6,611,610 kbtu per year, which translates into approximately 6.5 MMcf per year or 0.02 MMcf per day. Based on their 2018 California Gas Report, the California Energy and Electric Utilities estimate natural gas capacity within SoCalGas' planning area will be approximately 3,775 MMcf per day in 2023 (the Project's opening year).[105] Thus, the Project's annual natural gas consumption would represent 0.0005 percent of the 2023 forecasted capacity in SCG's planning area.

As discussed above, the Project would be required to comply with energy conservation standards pursuant to Title 24 of the California Administrative Code. The Project would also be required to comply with the L.A. Green Building Code, which has been effective as of January 1, 2017. The L.A. Green Building Code requires the use of numerous conservation measures, beyond those required by Title 24 of the California Administrative Code. The L.A. Green Building Code contains both mandatory and voluntary green building measures to conserve energy. Therefore, compliance with Title 24 of the California Administrative Code and the L.A. Green Building Code would reduce the Project's energy consumption. Therefore, the development of the Project would not cause wasteful, inefficient or unnecessary consumption of natural gas.

Conclusion

Impacts would be less than significant and no mitigation measures are required.

Telecommunications

No Impact. There are no cellular towers or telecommunication infrastructure on or adjacent to the Project Site. There are no cellular towers proposed by the Project. The Project would not result in the relocation or expansion of telecommunication facilities.[106]

Conclusion

Impacts would be less than significant and no mitigation measures are required.

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[103] California Gas and Electric Utilities, 2019, pg. 26, https://www.socalgas.com/regulatory/documents/cgr/2019_CGR_Supplement_7-1-19.pdf, Accessed August 16, 2019

[104] California Gas and Electric Utilities, 2018 California Gas Report, pg. 66, https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf, Accessed August 16, 2019.

[105] California Gas and Electric Utilities, *2018 California Gas Report*, 2018, p. 103. Available at: https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf. Accessed August 2019.

[106] Zeitouny & Associates, September 19, 2019

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less Than Significant Impact. As stated above, based on the Project's estimated net wastewater generation (71,353 gpd), the Project would generate a net water demand of approximately 85,624 gpd, or 95.9 acre-feet per year (afy), without accounting for regulatory water conservation features beyond the reductions embedded in the wastewater generation rates used for calculating the demand.[107] The Project would be designed to meet Cal Green and Title 24 Building Standards Code (CALGreen Code). The Project would emphasize water conservation, which would be achieved through the use of energy star appliances, and low flow plumbing fixtures. With implementation of additional water conservation measures per regulatory requirements, and the Project's water conservation features, the Project's actual water demand would be less than the amount stated above. Compliance with water conservation measures required by State and City green regulations would reduce this estimated projected water demand.

The Metropolitan Water District's (MWD) 2015 Regional UWMP (RUWMP) addresses the future of MWD's water supplies and demand through the year 2040. Evaluations are prepared for average year conditions, single-dry-year conditions, and multiple-dry-year conditions. The analysis for multiple-dry-year conditions (i.e., under the most challenging weather conditions such as drought and service interruptions caused by natural disasters) is presented in Table 2-4 of the 2015 UWMP. The analysis in the 2015 RUWMP concluded that reliable water resources would be available to continuously meet demand through 2040. In the 2015 RUWMP, the projected 2040 demand water is 2,201,000 afy, whereas the expected and projected 2040 supply is 2,941,000 afy based on current programs, and an additional 398,000 afy is expected to become available under programs under development for a potential surplus in 2040 of 1,138,000 afy.

According to the reliability data in the City of Los Angeles UWMP 2015, the most recent plan available, LADWP has sufficient supply to meet a total water demand of 675,700 afy by the year 2040. LADWP has programs to reduce the demand to 565,600 afy by 2040, a difference of 110,100 afy. To meet the reduced target, LADWP will reduce water consumption through conservation, increased recycled water use (including both non-potable and indirect potable reuse), and reduced reliance on imported water.[108]

The UWMP is based on SCAG growth projections and takes into account all expected regional growth. As indicated in the discussion in Item 6.14, *Population and Housing*, the Project's contributions to growth fall within the range of growth accounted for in the SCAG projections that are used for future planning activities and provision of services. The projections are revised at four

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[107] The water demand would be consistent with the estimated net wastewater generation of the Project per Table 6-51, *Estimated Wastewater Generation.* To be conservative, 20 percent was added to this figure (to account for outdoor water use).

[108] City of Los Angeles Department of Water & Power Urban Water Management Plan 2015, page ES-20. https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-w-sos-uwmp;jsessionid=5LbPb84T8L1NqjtC1gPPJ4zTdy8pH9v2jhSzXRdFNgq0yn2BlwRy!-1475618025?_afrLoop=524836082942912&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D524836082942912%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dxwvvtybgj_4.

year intervals so as to stay current with current growth trends and changes in land use activity. Changes to planning and zoning designations can be incorporated in a timely fashion so long as the resulting growth does not exceed the growth projections. The UWMP is updated at regular five year cycles and includes programs to meet the supply requirements.

The Project would result in an estimated net water demand of approximately 95.9 afy when fully occupied. The Project's increase in water demand would fall within the available and projected water supplies reported in the 2015 UWMP for the City for 2040 (675,700 afy) and would constitute less than 0.01 percent of the City's projected 2040 water supply.

Conclusion

As there would be sufficient water supplies available to serve the Project, impacts regarding water supply would be less than significant, and no mitigation measures are required.

c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As stated in Item 6.19.b, operation of the Project would result in a net wastewater generation of approximately 71,353 gpd. Given the current capacity of the HTP, the HTP would have ample capacity to serve the Project's wastewater generation, and as concluded in the SCAR (Appendix G), the Los Angeles Department of Public Works, Bureau of Sanitation would have adequate capacity to serve the Project.

Conclusion

The Project would have a less than significant impact with respect to wastewater treatment capacity and no mitigation measures are required.

d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Solid waste management in the City of Los Angeles involves both public and private refuse collection services, as well as public and private operation of solid waste transfer, resource recovery, and disposal facilities. The City of Los Angeles Bureau of Sanitation (BOS) is responsible for developing strategies to manage solid waste generation and disposal in the City of Los Angeles. The BOS collects solid waste generated primarily by single-family dwellings, small multifamily dwellings, and public facilities. Private hauling companies collect solid waste generated primarily from large multifamily residential, commercial, and industrial properties. The City of Los Angeles does not own or operate any landfill facilities, and the majority of its solid waste is disposed of at County landfills.

In 2017, the total amount of solid waste (including an import amount of 140,105 tons) disposed of at in-county Class III (nonhazardous solid waste) landfills, transformation facilities, and out-of-County landfills was approximately 10.5 million tons.

The remaining disposal capacity for the County's Class III (nonhazardous solid waste) landfills is estimated at approximately 167 million tons as of December 2017, the most recent data available.[109] Waste from the City of Los Angeles is disposed of primarily at the Sunshine Canyon and Chiquita landfill sites. Of the 167 million tons of remaining capacity within the County, 68 million tons, or approximately 40 percent, is located at the Sunshine Canyon landfill, which has a remaining life of 20 years. In addition to in-County landfills, out-of-County disposal facilities are also available to the City of Los Angeles.

As discussed in County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2017Annual Report, a shortfall in solid waste disposal capacity within the County is not anticipated to occur within the next 15 years under current conditions. The County anticipates that future disposal needs over the next 15 years can be adequately met through increased waste reduction and diversion efforts, development of alternative technologies, exportation of waste to out-of-County facilities, the Waste-by-Rail system to Mesquite Regional Landfill, in Imperial County, and if found to be environmentally sound and technically feasible, the expansion of in-County Class III landfill capacity.[110]

The City's Solid Waste Integrated Resources Plan (SWIRP), most commonly known as the City's Zero Waste Plan, provides a long-term plan through 2030 for the City of Los Angeles's solid waste programs, policies and environmental infrastructure. The SWIRP aims for the City of Los Angeles to achieve a goal of 90 percent diversion by 2025. This targeted diversion rate would be implemented through an enhancement of existing policies and programs such as implementing additional downstream programs (e.g. adding textiles to the blue bin recycling program; adding food scraps to the green bin recycling program; and requiring private solid waste collection service to provide access to multifamily and commercial customers); implementation of mandatory participation programs for residential, government, commercial, industrial, and institutional users; requiring transfer stations and landfills to provide resource recovery centers; and increased diversion requirements at C&D facilities pursuant to new policies and programs, and the development of future recycling facilities.[111]

As shown in Table 6-45, *Projected Solid Waste Generated During Operation*, based on solid waste generation factors from the California Integrated Waste Management Board (CIWMB), the Project

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[109] County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2017 Annual Report. April 2019. Appendix E-2, https://pw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF

[110] County of Los Angeles Department of Public Works, County of Los Angeles Countywide Integrated Waste Management Plan: 2017 Annual Report. April 2019

[111] Solid Waste Integrated Resources Plan, https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp?_adf.ctrl-state=and9syb5r_597&_afrLoop=8114843230493593&_afrWindowMode=0&_afrWindowId=null#!%40%40%3F_afrWindowId%3Dnull%26_afrLoop%3D8114843230493593%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dand9syb5r_601 Accessed August 27, 2019.

could generate a net of approximately 1,787.4lbs/day (0.893tons/day or 326 tons/year) of solid waste beyond existing conditions. The Project's 0.893 tons/day could be accommodated by the County's available regional landfills, and as discussed above, waste generated by the Project would be subject to State and local recycling and waste diversion strategies and policies including the City's SWIRP goal of achieving a 90 percent solid waste diversion rate by 2025.

TABLE 6-45
PROJECTED SOLID WASTE GENERATED DURING OPERATION

Land Uses	Quantity	Factor[a]	Solid Waste Generated (lbs/day)	Solid Waste Generated (tons/day)	Solid Waste Generated (tons/year)
Existing Land Uses					
Office	1,600	0.006 lbs/sf/day	9.6	0.0048	1.72
Commercial	7,830	0.006 lbs/sf/day	46.98	0.024	8.76
		Total	**56.6**	**0.029**	**10.5**
Proposed Land Uses					
Residential	432 du	4 lbs/du/day	1,728	0.864	315.36
Restaurant	14,000 sf	0.005 lbs/sf/day	70	0.035	12.78
Commercial	8,000 sf	0.006 lbs/sf/day	46	0.023	8.39
		Total	**1,844**	**0.922**	**336.53**
Net Increase (Existing/Proposed)			**1,787.4**	**0.893**	**326**

Source: ICF 2019
du = dwelling unit; lbs = pounds; sf = square feet

[a] Generation factors provided by the CalRecycle website, refer to Estimated Solid Waste Generation Rates. https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates, Accessed September 2019.

Project construction would include the demolition of approximately 11,030 sf of existing buildings; the export of approximately 89,000 cy of excavated soil (associated with excavation for the new building foundation and subterranean parking); and new construction totaling approximately 678,328 sf. These activities would generate demolition-, excavation-, and construction-related waste including, but not limited to, soil, asphalt, wood, paper, glass, plastic, metals, and cardboard that would be disposed of in one of the County's inert debris engineered fill operations that are located throughout Los Angeles County, such as Sunshine Canyon landfill, Chiquita landfill, and Azusa Land Reclamation inert landfill.

Construction and demolition (C&D) materials would be conveyed pursuant to the City's Waste Hauler Permit Program (Ordinance 181519), effective January 1, 2011. Under this Ordinance, all private waste haulers collecting solid waste within the City, including C&D waste, are required to obtain AB 939 Compliance Permits and to transport C&D waste to City certified C&D processing facilities. These facilities process received materials for reuse and have recycling rates that vary from 70 percent to 94 percent. Therefore, the Project would not cause any significant impacts from generating solid waste in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

The waste generated by the Project would be incorporated into the waste stream of the City, but the City's diversion rates would not be substantially altered as a result. The Project does not include any component that would conflict with State or local laws governing construction or operational solid waste diversion and would comply pursuant to local implementation requirements. Thus, the Project would result in less-than-significant impacts regarding compliance with management and reduction statutes and regulations related to solid waste.

Conclusion

Based on the factors discussed above, the Project would result in less than significant impacts regarding solid waste and no mitigation measures are required.

Cumulative Impacts: Utilities and Service Systems

Water Supply

All of the related projects are subject to City review to assure that the existing public utility facilities would be adequate to meet the domestic water and fire water demands of each project. Developers are required to improve facilities where appropriate and development cannot proceed without appropriate verification and approval by LADWP and LAFD, with funding by the developers. Required improvements by related projects, if they should occur, would be limited to minor, local improvements. Such improvements require only minor construction with very limited short-term construction impacts on traffic and perhaps noise. As noted above, the Project would not require improvements to local mainlines. Moreover, as the Project would not require the construction of any off-site water infrastructure because its projected demand can be met by existing facilities.

LADWP, as a public water service provider, is required to prepare and periodically update an UWMP to plan and provide for water supplies to serve existing and projected demands within its jurisdiction. The UWMP prepared by LADWP is based on the growth projections that are provided in the SCAG RTP/SCS, which is updated on 4-year cycles to account for changes in growth rates, and which accounts for existing development within the City, as well as projected growth anticipated to occur through redevelopment of existing uses and development of new uses. Each of the related projects is required to be consistent with the SCAG RTP/SCS projections in order to be accounted for in LADWP's UWMP current and projected available water demand. Should the related projects be accounted for in LADWP's UWMP, no significant cumulative water supply impact is anticipated from cumulative development. Additionally, under the provisions of SB 610, LADWP is required to prepare a comprehensive Water Supply Assessment for every new development "project" (as defined by California Water Code Section 10912) within its service area. These contribute to ongoing evaluations to ensure facilities are adequate, and require infrastructure system improvements.

As discussed above, the Project's net demand on water supplies would fall within the available and projected water supplies projected in LADWP's UWMP. Related projects would be required to provide local connections subject to review for service availability, subject to LADWP water system rules and requirements.

Conclusion

The Project's contribution to cumulative impacts on water supply would not be cumulatively considerable and cumulative impacts regarding water supply would be less than significant.

Wastewater

Development of the Project in combination with the related projects and other projects within the service area of the HTP would generate additional wastewater that would be treated at the HTP. As discussed above, the HTP has an existing treatment capacity of 450 mgd and a peak wet weather flow of 800 mgd with a residual daily flow capacity of 190 mgd.

As with the Project, all related projects in the City of Los Angeles would be subject to the provisions of the Municipal Code requiring provision of on-site infrastructure, improvements to address local capacity issues and payment of fees for future sewerage replacement and/or relief improvements. In addition, the potential need for the related projects to upgrade sewer lines to accommodate their wastewater needs is site-specific and there would be minimal, if any, direct cumulative relationship between the development of the Project and the related projects. None of the related projects is sufficiently close to the Project Site so that it would contribute with the Project to the demand on the adjacent infrastructure for conveyance capacity.

The SCAR analysis (Appendix G) described above for the Project impacts is based on a methodology that takes into account, among other factors, research and tracing of sewer flow levels upstream and downstream of the Project's point of connection, and research of the project location area for other recently approved SCARs to evaluate the cumulative impact of all known SCARs on the sewer system. Per the SCAR conclusions, and given existing and anticipated future capacity at the wastewater treatment facilities, Project wastewater generation impacts regarding wastewater facilities would be less than significant and its contribution to cumulative impacts would not be cumulatively considerable, and cumulative impacts related to wastewater would be less than significant.

Conclusion

The Project's contribution to cumulative impacts would not be cumulatively considerable and cumulative impacts regarding wastewater would be less than significant.

Electricity

As discussed in Section 6.6, *Energy*, based on the Project's estimated new electrical consumption of 3,533,210 kWh/year, the Project would account for approximately 0.015 percent of LADWP's total projected sales, and thus its supplies, in the Project's opening year. Thus, the Project would result in the use of renewable and non-renewable electricity resources on a relatively small scale. Additionally, the Project would include energy conservation features, including energy efficient lighting fixtures, ENERGY STAR-rated appliances, low-flow water features, and energy efficient mechanical heating and ventilation systems for the 432 residential units. The Project would also install solar panels on the roof level. As with the Project, the other future related projects would also be expected to incorporate energy conservation features, comply with applicable regulations (e.g., anti-idling vehicle regulations during construction), the 2016 Title 24 standards and CALGreen code, the Los Angeles Green Building Code, and incorporate mitigation measures, as

necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet their respective needs. Thus, use of electricity resources by cumulative development in the Project area would be reduced by conservation features and measures that would be implemented by each individual development project and by state measures requiring LADWP to obtain more of its supplies from renewable resources.

Conclusion

The Project's contribution to cumulative impacts with respect to electricity plans as well as infrastructure would not be cumulatively considerable and, thus, would result in a less than significant cumulative impact.

Natural Gas

As discussed in Section 6.6, *Energy*, based on the 2018 California Gas Report, the CEC estimates natural gas capacity within SCG's planning area will be approximately 3,775 million cf per day in 2023 (the Project's opening year). The Project, which would be required to comply with energy conservation standards pursuant to Title 24 of the California Administrative Code and the L.A. Green Building Code, would account for approximately 0.0005 percent of the 2023 forecasted consumption in SCG's planning area. Thus, the Project would result in the use of natural gas resources on a relatively small scale.

As with the Project, the related projects would also be expected to incorporate energy conservation features, comply with applicable regulations including the 2016 Title 24 standards and CALGreen code, the Los Angeles Green Building Code, and incorporate mitigation measures, as necessary. In addition, development projects within SCG's service area, including the Project and related projects, would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate.

Conclusion

The Project's contribution to cumulative impacts with respect to natural gas plans as well as infrastructure would not be cumulatively considerable and, thus, would result in a less than significant cumulative impact.

Telecommunications

Telecommunications are regulated by the Federal Communications Commission (FCC) and the California Public Utilities Commission (CPUC). Each of the related projects would be reviewed by the City to identify necessary new facilities and service connections to meet their respective needs.

Conclusion

The Project's contribution to cumulative impacts with respect to telecommunications as well as infrastructure would not be cumulatively considerable and, thus, would result in a less than significant cumulative impact.

Solid Waste

Solid waste disposal is a regional issue addressed by regional agencies, in this case the County of Los Angeles. The County promotes the efforts of individual jurisdictions to maximize waste reduction and recycling, expand existing landfills, and promote alternative technologies to reduce waste. Most notably, the City of Los Angeles, as part of its SWIRP, aims for the City of Los Angeles to achieve a goal of 90 percent diversion by 2025. The analysis of the Project's potential impacts, above, is based on landfill capacity and demand per the Countywide Integrated Waste Management Plan. Planning for landfill needs takes into account continuing cumulative demand and increases in cumulative demand associated with growth. Therefore, the analyses associated with that plan take into account cumulative development.

Like the Project, the related projects would be required to comply with applicable regulations related to solid waste, including those pertaining to waste reduction and recycling. Detailed components regarding waste reduction and recycling would be finalized for each related project on a project-by-project basis at the time of plan submittal to the City for the necessary building permits and reviews conducted pursuant to the City's Green Building Code, as applicable. As such, impacts to the solid waste from related projects would be less than significant. As discussed above, the Project would not generate solid waste that would exceed landfill capacities and the recycling of solid waste related to construction and operation of the Project would be required to comply with all federal, State, and local regulations including the City's Green Building Code and the SWIRP.

Conclusion

The Project's contribution to cumulative impacts would not be cumulatively considerable, and cumulative impacts related to solid waste would be less than significant.

6.20 Wildfire

If located in or near state responsibility areas of lands classified as very high fire hazard severity zones, would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project Site is located within a highly urbanized area and is currently developed with a single-story office and a single-story commercial building, and associated uses with no natural vegetation. Therefore, the only vegetation permanently located on the Project Site are trees, shrubs and other plants. The Project Site is not located in an area of moderate or very high fire hazard.[112] Additionally, the Project Site is not located in or near state responsibility areas of lands classified as very high fire hazard severity zones.[113]

[112] Zimas Website, http://zimas.lacity.org/, accessed September 8, 2019.

[113] Los Angeles County Fire Hazard Severity Zones in SRA, adopted by CAL FIRE on November 7, 2007, https://osfm.fire.ca.gov/media/6705/fhszs_map19.pdf, accessed September 8, 2019.

The Project Site is located in an established urban area that is well served by an existing roadway network. As shown in the City of Los Angeles General Plan Safety Element, *Critical Facilities and Lifeline Systems*, Lankershim Boulevard is designated as a Selected Disaster Route that could be utilized during a disaster event. While it is expected that the majority of the Project's construction activities would be confined on-site, some construction activities may temporarily affect access on portions of adjacent streets during certain periods of the day. However, in accordance with City of Los Angeles requirements, the Project would include PDF TRAF-4, which requires the development of a Construction Management Plan to ensure that adequate emergency access is maintained and that through-access for drivers, including emergency personnel, along all roads would still be provided during construction. Therefore, with respect to wildfire hazards, the Project construction would not result in the impairment of an adopted emergency response plan or emergency evacuation plan.

Conclusion

No impact would occur and no mitigation measures would be required.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The Project Site is not located in an area of moderate or very high fire hazard.[114] Additionally, the Project Site is not located in or near state responsibility areas of lands classified as very high fire hazard severity zones.[115] The Project is not located in a sloped area and is surrounded by urban development. As such, the Project would not exacerbate wildland risks, and would not expose occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire.

Conclusion

No impact would occur and no mitigation measures would be required.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The Project will not require the installation of infrastructure that may exacerbate fire risk. Project operation would generate traffic in the Project Site vicinity and would result in some modifications to access to the Project Site from the streets that surround it. However, adequate access to evacuation routes and emergency access to the Project Site and to the surrounding area would continue to be provided. Future driveway and building configurations would comply with applicable fire code requirements for emergency evacuation, including proper emergency exits for

[114] Zimas Website, http://zimas.lacity.org/, accessed September 8, 2019.

[115] Los Angeles County Fire Hazard Severity Zones in SRA, adopted by CAL FIRE on November 7, 2007, https://osfm.fire.ca.gov/media/6705/fhszs_map19.pdf. Accessed September 8, 2019.

patrons, employees, and residents. Project Site access and circulation plans would be subject to review and approval by the Los Angeles Fire Department (LAFD). For these reasons, and due to the fact that the Project Site is not located near any very high fire severity zone, operation of the Project would not substantially impair implementation of, or physically interfere, with an adopted emergency response plan or emergency evacuation plan.

Conclusion

No impact would occur and no mitigation measures would be required.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The Project Site is surrounded by urban development and is not adjacent to any wildlands. As discussed in Section 6.10, *Hydrology and Water Quality*, according to the City of Los Angeles General Plan Safety Element, the Project Site is not located with a 100-Year or 500-Year flood plain.

The Project is located in a potential dam inundation area related to the Hansen Dam and Hansen Recreational area, located three miles north of the Project Site and surrounded by intervening development.[116] The Federal Energy Regulatory Commission (FERC) cooperates with a large number of federal and state agencies to ensure and promote dam safety. More than 3,000 dams are part of regulated hydroelectric projects in the FERC program. FERC inspects hydroelectric projects on an unscheduled basis to investigate the following: 1) Potential dam safety problems; 2) Complaints about constructing and operating a project; 3) Safety concerns related to natural disasters; and 4) Issues concerning compliance with the terms and conditions of a license.[117] Every five years, an independent engineer approved by the FERC must inspect and evaluate projects with dams higher than 32.8 feet (10 meters) or with a total storage capacity of more than 2,000 acre-feet, which includes the Hansen Dam, thereby reducing the risk of dam failure. As such, the probability of dam failure is low. Pursuant to the City's LID Ordinance, the Project would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's BMPs. As described earlier, proposed stormwater BMPs would include development of a dry well for stormwater runoff that would meet the City of Los Angeles' stormwater capture and reuse criteria and LID design standards.

The Project Site is relatively flat with little topography that would expose people or structures to landslides. The Project would not contain uses or activities that would exacerbate existing environmental conditions. As discussed in Section 6.7, *Geology and Soils*, the Project Site is not located within a landslide inventory area. As such, and combined with the fact that the Project Site is not within or near a very high severity fire zone, there is no impact in relation to risks associated

[116] City of Los Angeles General Plan, Safety Element Exhibit F, 100-Year & 500-Year Floodplains, March 1994.

[117] City of Los Angeles Local Hazard Mitigation Plan, June 2017. https://emergency.lacity.org/sites/g/files/wph496/f/2017_LA_HMP_Public%20Review%20Draft_2017-06-15_reduced_Part1.pdf Accessed September 2019.

with downslope or downstream flooding or landslides as a result of runoff or post fire slope instability or drainage changes.

Conclusion

No impact would occur and no mitigation measures would be required.

Cumulative Impacts: Wildfire

The related projects are all located in highly urbanized areas, would not contain wildland features, and are not located adjacent to any wildland areas. Any related projects would be subject to established guidelines and building code regulations and construction procedures pertaining to fire and seismic hazards. All related projects would be subject to review by the LAFD for compliance with Fire Code and Building Code regulations related to emergency response, emergency access, and fire safety.

Conclusion

Based on the above considerations, the Project would not result in a cumulatively considerable contribution to cumulative impacts associated with wildfires.

6.21 Mandatory Findings of Significance

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant. The preceding analysis does not reveal any significant immitigable impacts to the environment. The Project Site is located within a highly urbanized area and is currently developed with an existing school and surface parking.

There is no Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan which applies to the Project. No wildlife corridors, native wildlife nursery sites, or bodies of water in which fish are present are located on the Project Site or in the surrounding area.

However, the Project Site does include ornamental trees that could support raptor and/or songbird nests. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Wildlife Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Environmental impacts from Project implementation may result due to the loss of trees on the site.

Compliance with standard regulatory compliance measures would reduce potential impacts upon migratory bird species associated with the proposed tree removals of non-protected trees, should construction commence during the breeding season.

The Project would not eliminate important examples of the major periods of California history or prehistory. As discussed in Section 6.5, *Cultural Resources* and *6.7, Geology and Soils*, impacts to archeological and paleontological resources and human remains would be less than significant with adherence to appliable conditions of approval and regulatory compliance measures.

Overall, based on the preceding analysis of potential impacts, no evidence is presented that the Project would degrade the quality of the environment.

Conclusion

Impacts related to the substantial degradation of the environment would be less than significant.

b. Does the project have impacts which are individually limited, but cumulatively considerable? ("Cumulative considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects).

Less Than Significant with Mitigation Incorporated. Pursuant to Public Resources Code Section 21155.2(b), the SCEA is required to identify all significant or potentially significant impacts of a transit priority project, other than those that do not need to be reviewed pursuant to Section 21159.28, based on substantial evidence in light of the whole record. Additionally, the SCEA is required to identify any cumulative effects that have been adequately addressed and mitigated pursuant to prior applicable certified EIRs. CEQA defines cumulative impacts as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The analysis of cumulative impacts need not be as in-depth as what is performed relative to the project, but instead is to "be guided by the standards of practicality and reasonableness." Additionally, the SCEA is required to identify any cumulative effects that have been adequately addressed and mitigated in prior applicable certified EIRs (refer to Section 3, Transit Project Consistency Analysis). Where the City, as the lead agency, determines that a cumulative effect has been adequately addressed and mitigated, that cumulative effect shall not be treated as cumulatively considerable.

The analysis of cumulative impacts provided herein is based on an assessment of reasonably foreseeable growth associated with a list of past, present, and anticipated future projects. The list of related projects was provided by LADOT and also includes other projects in the area based recent studies. A list of 8 related projects in the Project study area is provided in Table 6-46, *Summary of Related Projects*. Related Projects are mapped in Figure 6-3, *Related Projects Map*. Although these projects serve as the primary bases for evaluation of cumulative impacts, analyses may vary among certain environmental issues due to the unique characteristics and geographic context of certain impacts. The cumulative analyses for each environmental issue are provided below following the assessments of Project impacts.

A description of eight related projects in the Project study area is provided in Table 6-46, *Summary of Related Projects*, below. Related Projects are mapped in **Figure 6-3**, *Related Projects Map*, below. The related projects are utilized to analyze cumulative impacts associated with Project implementation discussed above. Cumulative impacts for each checklist topic listed in Section 4 of the SCEA have been addressed.

As discussed in Section 6.13, *Noise*, potentially significant noise impacts during Project construction and operation would be reduced to less-than-significant levels through compliance with applicable regulations, implementation of the Project's PDFs, and implementation of the identified Project-specific mitigation measures.

As discussed in Section 6.17, *Transportation*, cumulative operational traffic impacts would be less than significant and cumulative impacts would be less than significant. Each of the related projects would be separately reviewed and approved by the City, including a check for their consistency with applicable policies. Each related project would be required to comply with City requirements would implement mitigation measures and/or include project characteristics, such as traffic controls and safety procedures as part of a construction management plan, to reduce potential traffic impacts during construction or programs to reduce operational impacts.

Conclusion

Based on the analysis above, the City finds that with adherence to applicable regulations, PDFs, the SCAG 2016 RTP/SCS MMRP mitigations measures and Project-specific mitigation measures incorporated into the Project, the contribution of the Project to cumulative impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

TABLE 6-46
SUMMARY OF RELATED PROJECTS

No	Address	Description		Size
1	7634 Vineland Avenue	Retail	10,750	sf
		Office	11,950	sf
2	7955 Laurel Canyon Boulevard	Retail	4,500	sf
3	7660 Lankershim Boulevard	Condominiums	99	du
		Apartments	65	du
4	7401 N Lankershim Boulevard	Apartments	108	du
		Retail	2,370	sf
5	11839 W Sherman Way	Homeless Services Center	6,644	sf
6	11967 Saticoy Street	School	800	seats
7	9189 De Garmo Avenue	Recycling Facility	267,995	sf
8	11957 W Allegheny Street	Apartments	88	du

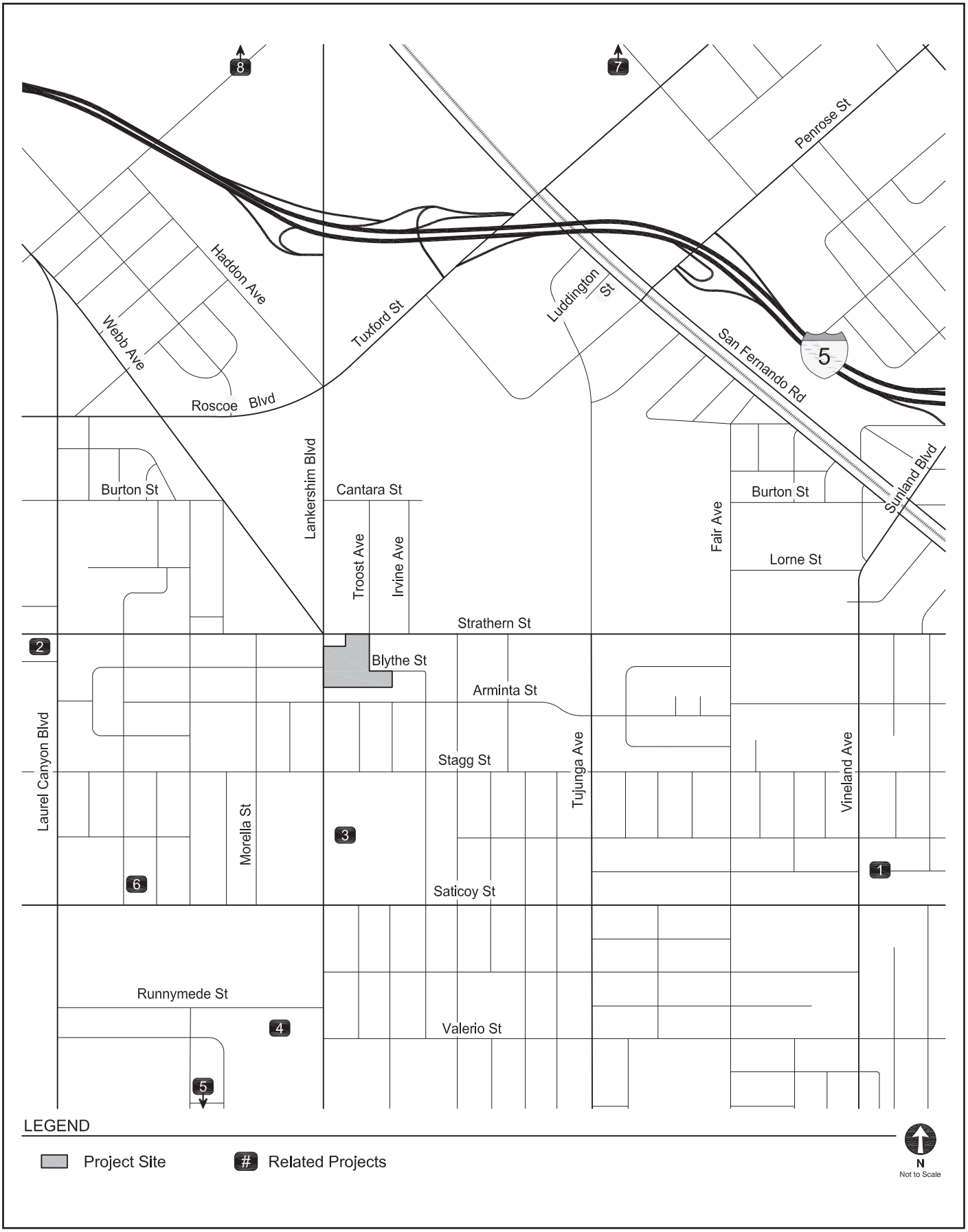
Source: Los Angeles Department of Transportation December 2018, Los Angeles Department of City Planning and recent traffic studies in the area.

c. Does the project have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated. For the purpose of this SCEA, a significant impact may occur if a project has the potential to result in significant impacts, as discussed in the preceding sections. As discussed in Section 6.13, *Noise*; with adherence to applicable regulations, project design features, the SCAG 2016 RTP/SCS MMRP mitigations measures, and Project-specific mitigation measures, Project-related impacts would be less than significant. The analysis contained in this SCEA concludes that the Project will not result in significant adverse effects after implementation of mitigation measures.

Conclusion

Based on the preceding environmental analysis, the Project would not have significant environmental effects on human beings, either directly or indirectly. Any potentially significant impacts would be reduced to less than significant levels through the implementation of the applicable mitigation measures identified in Items 6.1, *Aesthetics*, through 6.20, *Wildfire*, above. As discussed in Section 6.13, *Noise*, potentially significant noise impacts during Project construction and operation would be reduced to less than significant levels though implementation of Project-specific project design features and mitigation measures MM NOI-1, MM NOI-2 and MM-NOI-3**.**



\\PDCCITRDSGIS1\Projects_1\DLAPIPER\Lankershim_7940\Figures\Doc\Noise

Source: Gibson Transportation Consulting Inc.

Figure 6-3
Related Projects

Appendix A

Air Quality and Greenhouse Gas Technical Report

Draft
Air Quality and Greenhouse Gas Technical Report

7940 Lankershim Boulevard Mixed-Use Project

Prepared by:
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Prepared for:

Los Angeles Department of City Planning
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September 2019

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Acronyms and Abbreviations

AB	Assembly Bill
ACC	Advanced Clean Cars
AQMP	air quality management plan
AR4	Fourth Assessment Report
AV	Antelope Valley
BACT	best available control technology
BARCT	best available retrofit control technology
Basin	South Coast Air Basin
C	Celsius
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards
CalRecycle	California Department of Resources Recycling and Recovery
CAPP	Community Air Protection Program
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CCTV	closed-circuit television
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Los Angeles
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COHb	carboxyhemoglobin
CTF	Cleaner Technology and Fuels
DPM	diesel exhaust particulate matter
DR	demand response
EIR	environmental impact report
EO	executive order
EV	electric vehicle
F	Fahrenheit
FAR	floor area ratio
FCAA	Federal Clean Air Act
Friant Ranch Decision	*Sierra Club v. County of Fresno*

Friant Ranch Project	Community Plan Update and Friant Ranch Specific Plan
g/L	grams per liter
GHG	greenhouse gas
GWP	global warming potential
HC	hydrocarbon
HFC	hydrofluorocarbon
HOV	high-occupancy vehicle
hp	horsepower
HQTA	high-quality transit area
HRA	health risk assessment
HVAC	heating, ventilation, and air-conditioning
IPCC	Intergovernmental Panel on Climate Change
LADWP	Los Angeles Department of Water and Power
LAMC	Los Angeles Municipal Code
LCFS	low-carbon fuel standard
LOS	level of service
LST	localized significance threshold
MATES	Multiple Air Toxics Exposure Study
mg/m^3	milligrams per cubic meter
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
$MTCO_2e$	metric tons of carbon dioxide equivalent
MW	megawatt
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NGO	nongovernmental organization
NMA	neighborhood mobility area
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	nitrogen oxide
O_3	ozone
OPR	Office of Planning and Research
Pb	lead
PDF	project design feature
PFC	perfluorocarbon
pLAn	Sustainable City pLAn
PM	particulate matter
PM10	particulate matter less than or equal to 10 microns in diameter
PM2.5	particulate matter less than or equal to 2.5 microns in diameter

ppm	parts per million
PRC	Public Resources Code
Project	7940 Lankershim Boulevard Mixed-Use Project
Project Site	7918–7946 North Lankershim Boulevard and 11650–11664 Strathern Street
ROG	reactive organic gasses
RPS	Renewables Portfolio Standard
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
Scoping Plan	2017 Climate Change Scoping Plan Update
SCS	sustainable communities strategies
sf	square feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	short-lived climate pollutant
SO_2	sulfur dioxide
SRA	source receptor area
TAC	toxic air contaminant
TDM	Transportation Demand Management
TIS	Transportation Impact Analysis
TPA	Transit Priority Area
TSM	Transportation System Management
U.S. EPA	U.S. Environmental Protection Agency
V/C	volume to capacity
VMT	vehicle miles traveled
VOC	volatile organic compound
WRCC	Western Regional Climate Center
$\mu g/m^3$	micrograms per cubic meter

Chapter 1
Introduction

This Air Quality and Greenhouse Gas Technical Report is provided to support the City of Los Angeles (City) environmental review process and provide information regarding potential effects of air quality and greenhouse gas (GHG) emissions associated with the proposed 7940 Lankershim Boulevard Mixed-Use Project (Project) located in the Sun Valley-La Tuna Canyon Community Plan area within the City. The analysis provided in this report evaluates the potential for short- and long-term air quality and GHG impacts associated with construction and operation of the Project. The analysis includes a description of the environmental setting for the Project, including existing air quality and GHG conditions, as well as applicable laws and regulations, and documents the assumptions, methodologies, and findings used to evaluate the Project's air quality and GHG impacts.

1.1 Project Description Summary

The properties at 7918–7946 North Lankershim Boulevard and 11650–11664 Strathern Street (Project Site) form an irregularly shaped, approximately 4.69-acre parcel, bordered by North Lankershim Boulevard to the west and West Strathern Street to the north. Two commercial properties are currently located on the Project Site which includes a one-story commercial building, a one-story office building, and associated surface parking and storage areas. The Project would demolish the existing on-site structures to construct the Project.

The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of commercial uses. The Project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet (sf) and a floor area ratio (FAR) of 3.32:1. The residential component would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for either Extremely Low Income Households or Very Low Income Households. Five percent of the proposed residential units (22 units) would be designated as restricted affordable housing for Extremely Low Income Households, and six percent of the proposed residential units (26 units) would be designated as restricted affordable housing for Very Low Income Households.

Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in structured parking located within one subterranean level and one at-grade level. All parking would be fully enclosed and screened from public view. The Project would provide 224 bicycle spaces in the structured parking (30 short term bicycle spaces and 194 long term bicycle spaces).

Open space areas and amenities for residents would be include a central courtyard that would be landscaped and open to the sky. Other amenities would include a community room, recreational room, swimming pool and spa area, multi-use sport court, pet park, and private balconies.

The Project would be designed to meet the California Green Building Standards (CALGreen Code) and Title 24 Building Standards Code. The Project would emphasize energy and water conservation, which would be achieved through the use of energy efficient heating, ventilation, and air-conditioning (HVAC) and lighting systems, and Energy Star appliances, and low flow plumbing fixtures. The Project proposes to be prewired for electric vehicle (EV) charging at 20 percent of its parking capacity for future use, of which five percent will be installed with chargers for immediate use by EVs, and rooftop solar uses in accordance with the CALGreen Code. The Project would also include solar panels on the 15 percent of the rooftop space.

1.2 Nearby Land Uses and Sensitive Receptors

Sensitive receptors are defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land. Sensitive members of the population include those who may be more negatively affected by poor air quality than other members of the population, such as children, the elderly, or the infirm. In general, residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks typically contain a high concentration of these sensitive population groups (CARB 2005).

The Project Site is located in an urbanized area surrounded by a mix of land uses, with the nearest existing sensitive receptors being residential uses and institutional/educational uses. The nearest residential uses to the Project Site include the single-family homes located to the north, across West Strathern Street, and immediately adjacent to the east and south of the Project Site boundary along Blythe Street and West Arminta Street, respectively. Aside from these nearest receptors, single-family residential uses are also located further to the south, across West Arminta Street, and to the west, across North Lankershim Boulevard and behind the existing automotive and commercial uses that front that roadway. The Arminta Street Elementary School and Arminta Street Early Education Center are located approximately 715 feet east of the Project Site, along Beck Avenue between West Strathern Street and West Arminta Street.

Chapter 2
Air Quality

2.1 Existing Setting

Regional Climate and Meteorology

The Project Site is located within the South Coast Air Basin (Basin), an area covering approximately 6,745 square miles and bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills.

The Southern California region, which includes the Basin, lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate 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 extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (weather and topography) as well as human-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts in the Basin occur from June through September. These are generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. This condition frequently reduces pollutant dispersion, thereby causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

The active weather station closest to the Project Site is a Western Regional Climate Center (WRCC) monitoring station at the Burbank/Glendale/Pasadena Airport (Burbank Valley Pump Monitoring Station [COOP ID 041194]), which is approximately two miles to the southeast of the Project Site. Given the station's proximity to the Project Site, historic climatic conditions at the Burbank Valley Pump Monitoring Station are assumed to be representative of prevailing climatic conditions. According to climate data recorded from 1966 to 2016 at this station, the average annual maximum temperature in the area is approximately 77 degrees Fahrenheit (°F), and the average annual minimum temperature is approximately 51°F. The average precipitation in the area is approximately 16 inches annually, occurring primarily from December through March (WRCC 2019).

Criteria Air Pollutants

For the protection of public health and welfare, the Federal Clean Air Act (FCAA) requires that the U.S. Environmental Protection Agency (U.S. EPA) establish National Ambient Air Quality Standards (NAAQS) for various pollutants. These pollutants are referred to as "criteria" pollutants. Similarly, the California Clean Air Act (CCAA) requires the California Air Resources Board (CARB) to set standards and designate areas as either attainment or nonattainment based on whether the California Ambient Air Quality Standards (CAAQS) have been achieved. As all criteria pollutants can have human health effects at certain concentrations, the NAAQS and CAAQS define the maximum amount of an air pollutant that can be present in ambient air without harming public health. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as one hour, eight hours, 24 hours, or one year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas, standards established for the prevention of environmental and property damage are called secondary standards. The FCAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

Air quality standards have been established for the following six criteria pollutants: ozone (O_3), lead, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and particulate matter (PM), which consists of PM less than or equal to 10 microns in diameter (PM_{10}) and PM less than or equal to 2.5 microns in diameter ($PM_{2.5}$) (U.S. EPA 2019a). Criteria air pollutants are also categorized as primary and secondary pollutants. In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere. Of the six criteria pollutants, CO, SO_2, PM_{10}, and $PM_{2.5}$ are primary pollutants, while O_3 and NO_2 are secondary pollutants. The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern.

Ozone (O_3)

O_3, which is the main ingredient in urban smog, is not emitted directly into the air, but is created by chemical reactions between hydrocarbons (HC) and nitrogen oxides (NO_X) (both by-products of the internal combustion engine) in the presence of sunlight. Reactive organic gasses (ROG) are defined by CARB and include all HC except those exempted by CARB that contribute to smog formation, while volatile organic compounds (VOCs) are defined by the U.S. EPA and include all hydrocarbons except those exempted by the U.S. EPA. Generally speaking, ROGs and VOCs are similar but not identical, and their terms are used interchangeably. For purposes of this analysis, the term ROG is used. There are no separate ambient air quality standards for ROGs. Carcinogenic forms of ROG are toxic air contaminants (TACs), which are described below. An example is benzene.

ROG are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols.

The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in O_3 formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

O_3 poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoor. Exposure to O_3 at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term O_3 exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O_3 may increase the risk of respiratory-related deaths (U.S. EPA 2019b). The concentration of O_3at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum O_3 concentration reaches 80 parts per billion (U.S. EPA 2019c).

In addition to human health effect, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Nitrogen Dioxide (NO_2)

NO_2 is a reddish-brown gas with a bleach-like odor. As discussed previously, both NO and NO_2 are the two major forms of NOx. NO_2 is formed when NO reacts rapidly with the oxygen in air. NO_2 is responsible for the brownish tinge of polluted air. In the presence of sunlight, atmospheric NO_2 reacts and splits to form an NO molecule and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons.

Population-based studies suggest that an increase in acute respiratory illness—including infections and respiratory symptoms in children (not infants)—is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than ambient NO_2 levels found in Southern California homes that generally have fewer or no stoves. In healthy people, increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 (SCAQMD 2017a). Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms and emergency room asthma visits.

Carbon Monoxide (CO)

CO is a colorless, odorless, relatively inert gas. It is a trace constituent in the unpolluted troposphere, and is produced by both natural processes and human activities. In remote areas far from human habitation, CO occurs in the atmosphere at an average background concentration of 0.04 parts per million (ppm), primarily as a result of natural processes such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include those with diseases involving heart and blood vessels, fetuses (unborn babies), and people with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain (CARB 2019a).

Particulate Matter (PM)

PM consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized—respirable course particles with an aerodynamic diameter of 10 micrometers or less, or PM_{10}, and respirable fine particles with an aerodynamic diameter of 2.5 micrometers or less, or $PM_{2.5}$. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. PM is considered both a local and a regional pollutant.

Particulate pollution can be transported over long distances and may adversely affect the human, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Depending on its composition, both PM_{10} and $PM_{2.5}$ can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. EPA 2019d).

Sulfur Dioxide (SO_2)

SO_2 is a colorless, irritating gas with a “rotten egg” smell primarily formed from the combustion of fossil fuels containing sulfur. SO_2 is considered a local pollutant because it tends to accumulate in the air locally. High concentrations of SO_2 can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic

individuals to elevated SO_2 levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with longer-term exposures to high concentrations of SO_2, in conjunction with high levels of PM, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. SO_2 also is a major precursor to $PM_{2.5}$, which is a significant health concern and a main contributor to poor visibility (see also the discussion of health effects of particulate matter).

Lead (Pb)

Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric Pb over the past three decades. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death. There is no evidence to suggest that there are direct effects of Pb on the respiratory system.

Toxic Air Contaminants (TAC)

TACs are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. Air toxics are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Air toxics are emitted by a variety of industrial processes that include petroleum refining, electric utility and chrome plating operations, commercial operations, such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). To date, CARB has identified 21 TACs and adopted EPA's list of hazardous air pollutants as TACs. In August 1998, CARB identified diesel particulate matter (DPM) emissions as a TAC (CARB 1998). In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan was to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020 (CARB 2000).

TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources. Based on SCAQMD's Multiple Air Toxics Exposure Study (MATES) program that evaluates health risks from regional air toxics in the Basin, the majority of the estimated health risks from air toxics can be attributed to relatively few compounds, with the key driver being DPM. In the MATES IV Study that was conducted in 2012-2013, it was found that DPM accounted for 68 percent of the total estimated air toxics risk in the Basin (SCAQMD 2017b). DPM differs from other air toxics in that it is a complex mixture of hundreds of substances rather than a single substance (CARB 2009). DPM is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and

polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine PM is of the greatest health concern and may be composed of elemental carbon with adsorbed compounds such as organic compounds, SO_X, nitrates, metals and other trace elements. DPM is emitted from a broad range of diesel engines; the on-road diesel engines of trucks, buses and cars and the off-road diesel engines that include locomotives, marine vessels and heavy-duty equipment. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, and some neurological effects, such as lightheadedness. Acute exposure may also elicit a cough or nausea, as well as exacerbate asthma. Chronic exposure to DPM in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that DPM is a likely carcinogen. Human epidemiological studies have demonstrated an association between DPM exposure and increased lung cancer rates in occupational settings.

Ambient Air Quality

CARB collects ambient air quality data from a network of air monitoring stations throughout the state. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether the ambient air quality meets the NAAQS and CAAQS. The closest monitoring station is the Reseda – Gault Street station (ARB 70074), which is approximately nine miles west of the Project Site. This station currently monitors only ambient concentrations of ozone, NO_2, CO, and $PM_{2.5,}$ but does not monitor PM_{10}. The next closest monitoring station that monitors PM_{10} is the Los Angles – North Main Street monitoring station (ARB 70087), which is approximately 14 miles southeast of the Project Site. As such, the aforementioned air pollutant data from these two monitor stations are used to summarize the ambient air quality conditions near the Project Site.

Table 2.1-1 summarizes the concentrations of these pollutants, applicable regulatory standards, and the number of days per year applicable standards were exceeded for the last 3 years from which complete data are available (2015–2017). As discussed above, the CAAQS and NAAQS define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. The nearby stations have experienced frequent violations of the 8-hour ozone and 24-hour PM10 CAAQS over the period of record. Existing violations of the ozone and PM10 ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 2.1-1: Summary of Ambient Air Quality Monitoring Data[a]

Pollutant Standards	2015	2016	2017
1-hour Ozone (O_3)			
Maximum Concentration (ppm)	0.119	0.122	0.140
Number of Days Standard Exceeded			
CAAQS 1-hour standard (0.09 ppm)	0	0	4
8-Hour Ozone (O_3)			
State Maximum Concentration (ppm)	0.095	0.099	0.115
National Maximum Concentration (ppm)	0.094	0.098	0.114
National Fourth-highest Concentration (ppm)	0.087	0.086	0.095
Number of Days Standard Exceeded			
CAAQS 8-hour standard (0.070 ppm)	34	23	67
NAAQS 8-hour standard (0.070 ppm)	32	23	64
Carbon Monoxide (CO)			
Maximum Concentration 1-hour Period (ppm)	3	2.4	3
Maximum Concentration 8-hour Period (ppm)	2.5	1.9	2.5
Number of Days Standard Exceeded			
NAAQS 8-hour standard (9 ppm)	0	0	0
CAAQS 8-hour standard (9.0 ppm)	0	0	0
NAAQS 1-hour standard (35 ppm)	0	0	0
CAAQS 1-hour standard (20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour Concentration (ppm)	0.0725	0.0555	0.0625
Annual Average Concentration (ppm)	0.013	0.012	0.012
Number of Days Standard Exceeded			
CAAQS 1-hour standard (0.18 ppm)	0	0	0
NAAQS 1-hour standard (0.100 ppm)	0	0	0
Suspended Particulates (PM_{10})			
State Maximum 24-hour Concentration (µg/m^3)	88.5	74.6	96.2
National Maximum 24-hour Concentration (µg/m^3)	73.0	64.0	64.6
State Annual Average Concentration (CAAQS = 20 µg/m^3)	27.0	*	*
Number of Days Standard Exceeded			
CAAQS 24-hour standard (50 µg/m^3)	30	21	40
NAAQS 24-hour standard (150 µg/m^3)	0	0	0
Suspended Particulates ($PM_{2.5}$)			
National Maximum 24-hour Concentration (µg/m^3)	36.8	30.0	35.2
24-hour Standard 98th Percentile (µg/m^3)	28.4	24.5	20.7
National Annual Average Concentration (µg/m^3)	8.8	9.1	9.7
State Annual Average Concentration (µg/m^3)	*	16.9	16.8
Number of Days Standard Exceeded			
NAAQS 24-hour standard (35 µg/m^3)	1	0	0

Sources: CARB 2019b; U.S. EPA 2018. Data compiled by ICF.

ppm = parts per million; µg/m^3 = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter; CAAQS = California Ambient Air Quality Standards; NAAQS = National Ambient Air Quality Standards

* = insufficient data available to determine value

[a] Data available at: https://www.arb.ca.gov/adam/topfour/topfour1.php.

The FCAA requires the U.S. EPA to designate areas within the country as either attainment or nonattainment for each criteria pollutant based on whether the NAAQS have been achieved. Similarly, the CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. If a pollutant concentration is lower than the state or federal standard, the area is classified as being in attainment for that pollutant. If a pollutant violates the standard, the area is considered a nonattainment area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated unclassified. Additionally, where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard that area is designated a maintenance area. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data show that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment.

Table 2.1-2 summarizes the attainment status for the Los Angeles County portion of the Basin with respect to the NAAQS and CAAQS. The CAAQS and NAAQS represent concentration limits of criteria air pollutants needed to adequately protect human health and the environment. Existing violations of the O_3 and PM_{10} ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of acute and chronic cardiovascular and respiratory ailments.

Table 2.1-2: Federal and State Attainment Status for the Los Angeles County Portion of the South Coast Air Basin

Criteria Pollutant	Federal Designation	State Designation
Ozone (O_3) (1-hour standard)	—	Nonattainment
Ozone (O_3) (8-hour standard)	Nonattainment – Extreme (P)	Nonattainment
Carbon Monoxide (CO)	Maintenance – Serious (P)	Attainment
Particulate Matter (PM_{10})	Maintenance – Serious (P)	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment – Serious (P)	Nonattainment
Nitrogen Dioxide (NO_2)	Maintenance (P)	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	Nonattainment (P)	Attainment

Sources: U.S. EPA 2019e; CARB 2018a; CARB 2019e.
(P) = designation applies to a portion of the county

2.2 Regulatory Framework

Federal

Federal Clean Air Act

The FCAA was first enacted in 1963 and has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The FCAA establishes the NAAQS and specifies future dates for achieving compliance. The FCAA also mandates that each state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. Because the Project Site is within the Los Angeles County portion of the Basin, it is in an area designated as nonattainment for certain pollutants that are regulated under the FCAA.

The 1990 amendments to the FCAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the FCAA that would most substantially affect the development of the Project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 2.2-1 shows the NAAQS currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for O_3 and adopt a standard for $PM_{2.5}$. The $PM_{2.5}$ NAAQS was most recently amended in 2012 and the 8-hour O_3 NAAQS was further amended in October 2015.

Table 2.2-1: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	CAAQS	NAAQS[1]
Ozone (O_3)	1-hour	0.09 ppm	-
	8-hour	0.070 ppm	0.070 ppm
Respirable Particulate Matter (PM_{10})	Annual mean	20 µg/m^3	-
	24- hour	50 µg/m^3	150 µg/m^3
Fine Particulate Matter ($PM_{2.5}$)	Annual mean	12 µg/m^3	12 µg/m^3
	24- hour	No Standard	35 µg/m^3
Carbon Monoxide (CO)	1- hour	20 ppm	35 ppm
	8- hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO_2)	Annual mean	0.030 ppm	0.053 ppm
	1- hour	0.18 ppm	100 ppb
Sulfur Dioxide (SO_2)	Annual mean	-	0.03 ppm
	24- hour	0.04 ppm	0.14 ppm
	3- hour	-	-
	1- hour	0.25 ppm	75 ppb
Lead (Pb)	30-day Average	1.5 µg/m^3	-
	Calendar Quarter	-	1.5 µg/m^3
	Rolling 3-Month Average	-	0.15 µg/m^3
Sulfates	24- hour	25 µg/m^3	No Federal Standard
Hydrogen Sulfide	1- hour	0.03 ppm (42 µg/m^3)	No Federal Standard
Vinyl Chloride	24- hour	0.01 ppm (26 µg/m^3)	No Federal Standard
Visibility-Reducing Particle Matter	8- hour	-	No Federal Standard

Source: CARB 2016a.

ppb= parts per billion; ppm= parts per million; µg/m^3 = micrograms per cubic meter.

[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment. Only Primary standards are shown here.

Emission Standards for Non-Road Diesel Engines

To reduce emissions from non-road diesel equipment, the U.S. EPA established a series of increasingly strict emission standards for new non-road diesel engines. Tier 1 standards were phased in on newly manufactured equipment from 1996 through 2000 (year of manufacture), depending on the engine horsepower (hp) category. Tier 2 standards were phased in on newly manufactured equipment from 2001 through 2006. Tier 3 standards were phased in on newly manufactured equipment from 2006 through 2008. Tier 4 standards, which require advanced emission control technology, were phased in from 2008 through 2015.

On-Road Diesel Fuel Rule

In December 2000, the U.S. EPA signed the Heavy-Duty Highway Rule, which reduces emissions from on-road, heavy-duty diesel trucks by establishing a series of increasingly strict emission standards for new engines. Manufacturers were required to produce new diesel vehicles that meet PM and NO_X emission standards beginning with model year 2007 with the phase-in period being between 2007 and 2010. The phase-in was based on a percent-of-sales basis: 50 percent from 2007 to 2009 and 100 percent in 2010 (U.S. EPA 2001).

Emission Standards for Heavy-Duty Vehicles

U.S. EPA has established a series of increasingly strict emission standards for new heavy-duty bus and truck engines. Emissions from heavy-duty trucks are managed by regulations and emission limits implemented at the federal, state, and local levels. In December 2000, EPA signed the Heavy-Duty Highway Rule, which reduces emissions from on-road, heavy-duty diesel trucks by establishing a series of increasingly strict emission standards for new engines. Manufacturers were required to produce new diesel vehicles that meet particulate matter and NOx emission standards beginning with model year 2007, with the phase-in period being between 2007 and 2010. The phase-in was based on a percentage-of-sales basis: 50 percent from 2007 to 2009 and 100 percent in 2010. Requirements apply to engines installed in all vehicles with Gross Vehicle Weight Rating above 14,000 pounds, and to some engines installed in vehicles with Gross Vehicle Weight Rating between 8,500 and 14,000 pounds (U.S. EPA 2019f).

State

California Clean Air Act

The CCAA, signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with these standards. Table 2.2-1 shows the CAAQS currently in effect for each criteria pollutant.

The CARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that would be incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures.

The CCAA also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

Toxic Air Contaminants Regulations

California regulates TACs primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Toxic Air Contaminant Identification and Control Act (AB 1807) created California's program to reduce exposure to air toxics. The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks. In August 1998, CARB identified particulate emissions from diesel-fueled engines as TACs. In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate.

In 2017, Governor Jerry Brown signed AB 617 into law to develop a new community focused program to more effectively reduce exposure to air pollution and preserve public health. CARB and local air quality districts are directed to take measures to protect communities disproportionally impacted by air pollution through local, community-specific strategies that are focused on the individual needs and issues particular to each community. Tasked to prepare a statewide strategy to reduce emissions in communities affected by high exposure to air pollution, CARB has established the Community Air Protection Program (CAPP) to identify and prioritize communities on an annual basis where reduction from pollution exposure is needed based on environmental, health, and socioeconomic information. This statewide effort to reduce exposure in communities most impacted by air pollution will require community air monitoring, community emission reduction plans, and incentive funding to deploy the cleanest technologies in the most impacted areas. While CARB ultimately selects the communities to be included in the CAPP and establishes the program requirements, AB 617 places the responsibility for the development and implementation of community emissions reduction programs primarily on the local air quality districts. Specifically, once communities are selected for action by CARB, the local air quality districts are tasked to: (1) form a community steering committee and begin development of community emission reduction programs; 2) develop expedited schedules for implementing best available retrofit control technology (BARCT) requirements; (3) deploy monitoring in communities selected for community air monitoring systems; and (4) adopt programs to reduce emissions in the selected communities (CARB 2019c).

Regional

South Coast Air Quality Management District

The Project Site lies within the Los Angeles County portion of the Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County;

Los Angeles County, except for the Antelope Valley; the non-desert portion of western San Bernardino County; and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of SCAQMD's jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system that allows no net increase in emissions from any new or modified (i.e., previously permitted) emissions sources, and transportation control measures. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards and healthful air.

The 2016 AQMP 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 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approach attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date.

SCAQMD published the *CEQA Air Quality Handbook* in November 1993[1] to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses as part of California Environmental Quality Act (CEQA) documents prepared within SCAQMD's jurisdiction. In addition, SCAQMD has published two guidance documents: *Localized Significance Threshold Methodology for CEQA Evaluations* (2003, revised 2008) and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (2006). These publications provide guidance for evaluating localized effects from mass emissions during construction. Both were used in the preparation of this analysis.

The Project is also required to comply with all applicable SCAQMD Rules and Regulations pertaining to construction activities, including, but not limited to:

Rule 401– Visible Emissions. This rule prohibits the discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any 1 hour that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

[1] Section updates provided on the SCAQMD website: http://www.aqmd.gov/ceqa/hdbk.html

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. Odors are regulated under this rule.

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, 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 pre-watering and re-watering 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 an SCAQMD-certified dust control supervisor.

Rule 1108 – Cutback Asphalt. This rule specifies VOC content limits for cutback asphalt.

Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. This rule specifies requirements for stationary diesel engines, including emergency standby generators. It requires owners or operators of emergency standby generators to keep monthly logs of usage, limits maintenance and testing to 20 hours per year, and requires emission rates to not exceed 0.40 gram per brake-horsepower hour.

Rule 1113 – Architectural Coatings. This rule limits the VOC content in architectural coatings used in the SCAQMD jurisdiction. These limits are application-specific and are updated as availability of low-VOC products expands.

Southern California Association of Governments

The 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, and is the federally designated metropolitan planning organization for a majority of the region and the largest metropolitan planning organization 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. SCAG data are used in the preparation of air quality forecasts and the conformity analysis included in the AQMP.

SCAG's 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) aims to reduce air pollution by adding density in proximity to transit stations, and encouraging mixed-use development and active transportation. SCAG's RTP/SCS establishes general goals for land use planning and seeks improved access and mobility by placing

"destinations closer together, thereby decreasing the time and cost of traveling between them."[2] The 2016 RTP/SCS seeks to implement "strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing), and expanded housing and transportation choices."[3]

City of Los Angeles General Plan Air Quality Element

The City's general plan Air Quality Element (1992) addresses citywide goals, objectives, and policies designed to promote cleaner air and improved public health. The principal objective of the Air Quality Element of the general plan is to aid the region in attaining the state and federal ambient air quality standards while continuing economic growth and improvement in the quality of life afforded to City residents. The Air Quality Element also documents how the City will implement local programs contained in the general plan through recognition of the interrelationships between transportation and land use planning. The Air Quality Element establishes six City-wide criteria for meeting its mobility and air quality goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation, and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

In accordance with CEQA requirements, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The City uses the SCAQMD's *CEQA Air Quality Handbook* and SCAQMD's supplemental online guidance/information for the environmental review of plans and development proposals within its jurisdiction.

[2] Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2016), page 16. Available at: http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

[3] Southern California Association of Governments, 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy, (2016), page 14.

2.3 Air Quality Impacts and Mitigation Measures

Methodology

Air pollutant emissions would occur from both construction and operation of the new mixed-use development at the Project Site. The Project's construction activities would generate temporary air pollutant emissions from the use of off-road mobile equipment and combustion-powered tools at the Project Site as well as construction-related worker, vendor truck, and haul truck trips traveling to and from the Project Site. Once constructed, air pollutant emissions would result from operations of the new mixed-use development, which includes mobile- and area-source emissions. The change in air pollutant emissions generated by the Project relative to baseline conditions has been estimated and compared with the applicable air quality thresholds of significance recommended by SCAQMD.

Short-term Construction-Generated Emissions

Construction of the Project would generate emissions of ROG, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ that could result in short-term air quality effects during the construction period. Emissions would originate from off-road equipment exhaust, employee and haul truck vehicle exhaust (on-road vehicles), and fugitive dust from site grading and earth movement.

The Project's short-term construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2016.3.2, developed by the California Air Pollution Control Officers Association and recommended by SCAQMD. The modeling was conducted based on Project-specific construction data (e.g., schedule, equipment, truck volumes) provided by the Project applicant, where available. Where Project-specific information was not available, reasonable assumptions based on similar projects and default model settings were used to estimate criteria air pollutant and ozone precursor emissions. Because it is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for fugitive dust control, the reduction of fugitive PM_{10} and $PM_{2.5}$ emissions from implementation of Rule 403 was accounted for in the modeling. Specific Rule 403 control requirements include, but are not limited to, applying water to exposed soils, particularly during grading and site preparation activities; washing equipment and vehicles or using another other method for removing material (e.g., washed gravel pad, wheel shaker, wheel spreading device) prior to leaving the work site; covering haul loads prior to haul vehicles leaving the work site; and removing any accumulated dirt/mud from roadways adjacent to the work site.[4] The resulting pollutant emissions estimated from CalEEMod were then assessed against SCAQMD's regional significance thresholds, which are shown in Table 2.3-1, to determine the Project's impacts on regional air quality. The modeling output files are provided in Appendix A of this report.

In conducting the localized air quality analysis for the Project, which focuses only on on-site emissions, the Project's peak on-site construction emissions generated from combustion sources (e.g., off-road construction equipment) and fugitive sources (e.g., grading and demolition dust)

[4] See https://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4, last accessed August 2019.

were extracted from the CalEEMod model run outputs. Additionally, to account for combustion emissions associated with vehicles traveling within the Project Site during construction, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions from worker vehicle and vendor and haul truck trips would occur within the Project Site. Overall, the daily total on-site combustion, mobile, and fugitive dust emissions associated with the Project's construction activities were evaluated against SCAQMD's localized significance thresholds (LSTs) for a 4.6-acre site, which are shown in Table 2.3-2.

Long-term Operational Emissions

Operation of the Project would generate emissions of ROG, NOx, CO, SOx, PM_{10}, and $PM_{2.5}$ that could result in long-term impacts on ambient air quality. The Project's emissions of these air pollutants and precursors, including mobile-, energy-, and area-source emissions, during operations were quantified using CalEEMod. Area-source emissions, which are widely distributed and composed of many small emissions sources (e.g., fireplaces, landscaping equipment, consumer products, painting operations, etc.), and energy-source emissions, which are generated from activities in buildings where natural gas is used (e.g., heating or cooking), were modeled according to the size and type of land use proposed at the Project Site. Modeling of mass mobile-source emissions was based on the number of daily vehicle trips that would result from the Project's new multi-family residential, restaurant, and commercial uses. Project trip generation rates for these proposed land uses were obtained from the Transportation Impact Study (TIS) prepared for the Project by Gibson Transportation Consulting.[5] The vehicle trips modeled in CalEEMod take into account trip reductions from internal capture from co-locating different land uses on the Project Site and from nearby access to public transportation. The resulting long-term operational emissions that would be generated by the Project were then assessed against the applicable SCAQMD thresholds (refer to Table 2.3-1) to determine the Project's impacts on regional air quality.

Aside from regional air quality impacts, the Project's localized air quality impacts during operations were analyzed by extracting the Project's on-site operational emissions from the CalEEMod model run. To account for mobile-source emissions associated with vehicles traveling within the two-level parking structure at the Project Site by Project residents and patrons of the new restaurant and commercial uses, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions generated during Project operations would occur within the Project Site. The Project's total on-site operational emissions were then evaluated against SCAQMD's applicable operational LSTs (refer to Table 2.3-1).

It should be noted that, currently, the Project Site is used as a construction yard and is occupied by a single-story office and a single-story commercial building along with associated uses. According to the TIA for the Project, the existing uses at the Project Site generate approximately 40 daily vehicle trips.[6] With development of the Project, the operational emissions generated by the existing uses would cease and be replaced by those for the Project. However, for the purpose

[5] Gibson Transportation Consulting, Inc. September 2019. Draft Transportation Impact Study for the 7940 Lankershim Boulevard Mixed-Use Project, Los Angeles, California.
[6] Ibid.

of conducting a conservative analysis, the Project's operational emissions were assessed in this analysis without taking any emissions credit from the existing uses that currently occupy the Project Site. Thus, the actual operational emissions that would result from Project implementation would be lower than the emissions reported in this analysis.

Operational Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. The potential for the Project to result in localized CO impacts occurring from the addition of Project-associated traffic volumes at intersections is assessed based on SCAQMD's suggested criteria, which recommends performing a localized CO impact analysis for intersections that change from level of service (LOS) C to D as a result of a project and for all intersections rated D or worse where the project increases the volume-to-capacity (V/C) ratio by 2 percent or more. Additionally, as part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a detailed CO hot spots analysis was conducted at four heavily congested intersections in the Basin that were likely to experience the highest CO concentrations. The results of the CO hot spots analysis did not predict a violation of CO standards at any of these four intersections. As such, the highest daily traffic volumes that would occur among the study intersections analyzed in the Project's TIS are also compared against the highest traffic volumes at the busiest intersection evaluated in the 2003 AQMP in this analysis to evaluate the potential for the Project to result in any localized CO impacts.

Thresholds of Significance

Appendix G of the CEQA Guidelines provides a set of topics that addresses impacts with regard to air quality. The questions are as follows:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a nonattainment area with respect to the applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; and
- Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

Supplemental Thresholds

Regional Thresholds

The City has not developed specific air quality thresholds for air quality impacts. Instead, it relies on the SCAQMD's *CEQA Air Quality Handbook* when acting as lead agency for CEQA purposes. Appendix G, Section III, of the CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts. Given SCAQMD's regulatory

role in the Basin, the significance thresholds and analysis methodologies established by SCAQMD are relied upon by the City in the context of the questions from Appendix G of the CEQA Guidelines to make determinations regarding air quality impacts. The SCAQMD significance thresholds and analysis methodologies are relied on here with respect to this analysis of the Project's potential air quality impacts.

The SCAQMD has established air quality significance thresholds that are applicable to both construction and operational emissions generated by CEQA projects within its jurisdiction. These significance thresholds were derived using regional emissions modeling to determine maximum allowable mass quantities of pollutant emissions that could be generated by individual projects without adversely affecting air quality and creating public health concerns based on existing pollution levels. These regional pollutant emission thresholds are shown in Table 2.3-1.

Table 2.3-1: SCAQMD Regional Air Quality Significance Thresholds

	Mass Daily Thresholds (lbs./day)	
Pollutant	**Construction**	**Operation**
Nitrogen Oxides (NO_X)	100	55
Volatile Organic Compounds (VOC)[a]	75	55
Suspended Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55
Sulfur Oxides (SO_X)	150	150
Carbon Monoxide (CO	550	550
Lead (Pb)[b]	3	3

Source: SCAQMD 2019.

[a] The terms VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

[b] The Project would result in no lead emissions sources during the construction period or operations. As such, lead emissions are not evaluated herein.

Localized Thresholds

Aside from regional air quality impacts, projects in the Basin are also required to analyze local air quality impacts. The SCAQMD has developed LSTs that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts. LSTs are developed based on the ambient concentrations of that pollutant for each of the 38 source receptor areas (SRAs) in the Basin. The localized thresholds, which are found in the mass rate look-up tables in SCAQMD's *Final Localized Significance Threshold Methodology* document, were developed for the analysis of projects that are less than or equal to five acres in size and applicable only to the following criteria pollutants: NOx, CO, PM_{10}, and $PM_{2.5}$. The analysis of localized air quality impacts focuses only on the on-site activities of a project and does not include emissions that are generated off-site, such as on-road haul or delivery truck trips (SCAQMD 2003).

The mass rate look-up tables developed by SCAQMD present LST values in the form of allowable emissions (in pounds per day) as a function of receptor distance from a project's site boundary.

These LST values were developed by SCAQMD for 1-acre, 2-acre, and 5-acre sites. The LSTs established for each of the aforementioned site acreages represent the level of pollutant emissions that would not exceed the most stringent applicable federal or state ambient air quality standards. For project acreages that fall between the acreages presented in the mass rate look-up tables, SCAQMD recommends using either the LSTs for acreage that is smaller than that of the project or developing LSTs from a ratio of the known LSTs for smaller and larger acreages using a linear regression calculation. Because the Project Site is approximately 4.6 acres, the LST values for a 4.6-acre site were approximated through linear regression from the 2- and 5-acre LST values in the mass rate look-up tables. The construction and operational LSTs for a 4.6-acre site in SRA 7 (East San Fernando Valley), which is where the Project Site is located, are shown in Table 2.3-2.

Table 2.3-2: SCAQMD LSTs

Pollutant Monitored within SRA 7 East San Fernando Valley	4.6-Acre Site[a] Allowable Emissions (pounds/day) as a Function of Receptor Distance (feet) from Site Boundary 82 feet (25 meters)[b]
Construction Screening Thresholds	
Nitrogen Oxides (NO_x)[c]	164.3
Carbon Monoxide (CO)	1,347.6
Respirable Particulate Matter (PM_{10})	13.1
Fine Particulate Matter ($PM_{2.5}$)	7.4
Operational Screening Thresholds	
Nitrogen Oxides (NO_x)[b]	164.3
Carbon Monoxide (CO)	1,347.6
Respirable Particulate Matter (PM_{10})	3.7
Fine Particulate Matter ($PM_{2.5}$)	1.8

Source: SCAQMD 2003 (revised 2008).

[a] The LSTs for a 4.6 acre site in SRA 7 were estimated from the corresponding LSTs for a 1-, 2-, and 5-acre site in SRA 1 (obtained from Appendix C [Localized Significance Threshold Screening Tables] of SCAQMD's *Final Localized Significance Threshold Methodology* document), using the linear regression calculation recommended by SCAQMD.

[b] While SCAQMD's mass rate look-up tables present LST values for receptor distances of 82, 164, 328, 656, and 1,640 feet from a project's site boundary, for the purpose of this analysis only the LST values at a receptor distance of 82 feet is provided since LSTs at this distance are the most conservative and best meet the distances at which the nearest off-site sensitive receptors are from the Project Site among the distances in SCAQMD's LST lookup tables. According to SCAQMD's LST methodology, it is recommended that projects with boundaries closer than 82 feet (25 meters) from the nearest receptor use the LSTs for receptors located at 82 feet.

[c] The localized thresholds listed for NO_X in this table take into consideration the gradual conversion of NO to NO_2.The analysis of localized air quality impacts associated with NO_X emissions focuses on NO_2 levels because of their association with adverse health effects.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's decision in *Sierra Club v. County of Fresno*, 6 Cal. 5th 502 (2018) (hereafter referred to as the Friant Ranch Decision), reviewed the long-term, regional air quality analysis contained in the environmental impact report (EIR) for the proposed *Community Plan Update* and *Friant Ranch Specific Plan* (Friant Ranch Project). The Friant Ranch Project is a 942-

acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment under the NAAQS and CAAQS for ozone and $PM_{2.5}$. The Friant Ranch Project was determined to result in significant and unavoidable air quality impacts with respect to PM10, ROG, and NOx. Despite the disclosure of these impacts, the court found that the EIR was flawed insofar as it did not attempt to draw any connection between the significant and unavoidable exceedances of criteria pollutant thresholds and any particular human health impacts. On this basis, the court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision clarifies that when significant and unavoidable exceedances of criteria pollutant thresholds occur, environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

As indicated herein, the Project does not require an EIR because the Project would not have significant and unavoidable air quality impacts and would not result in exceedances of the established SCAQMD-derived criteria pollutant thresholds used here. Accordingly, the Project's air quality impacts would be less than significant, and no analysis of human health impacts is required, per the Friant Ranch Decision. Nevertheless, because the Project would result in increased emissions of criteria pollutants compared with the baseline condition, the following discussion is presented for informational purposes.

As discussed in Section 2.1, *Existing Setting*, all criteria pollutants that would be generated by the Project are associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, and SO_2 are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern generated by the Project are ozone precursors (ROG and NO_X), CO, SOx, and PM because SCAQMD has developed numerical thresholds for these pollutants.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional PM)

Adverse health effects induced by regional criteria pollutant emissions generated by the Project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO_X) contribute to the formation of ground-borne ozone on a regional scale. Emissions of ROG and NOx generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutant may be transported over long-distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. While there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutant emissions to the locations where specific health effects could occur or determining the resultant number of additional days of nonattainment cannot be estimated with any degree of accuracy with currently available tools.

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, both of which provided amici curiae briefs for the Friant Ranch legal proceedings that the court lent significant credence to in its ruling but could not consider in the context of its review of the Friant Ranch Project EIR.[7] In its brief, SJVAPCD (2015) acknowledges that while health risk assessments for localized air toxics, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task." SJVAPCD further notes that emissions solely from the Friant Ranch Project (which equate to less than one-tenth of one percent of the total NOx and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD (2015) presents similar information in their brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels".[8]

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is generally a cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. The Project's incremental contribution to cumulative photochemical reactions that lead to the formation of tropospheric ozone and secondary PM cannot be traced to specific health outcomes on a regional scale, and therefore, a quantitative correlation of Project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis.

Localized Project-Generated Criteria Pollutants (NO_2, CO, and PM)

Localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual

[7] The amici curiae briefs for Friant Ranch are available at: https://www.courts.ca.gov/41312.htm

[8] For example, SCAQMD's analysis of their 2012 Air Quality Attainment Plan showed that modeled NOx and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD's Rule 1315 showed that emissions of NOx and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absence (SCAQMD 2015).

projects can result in direct and material health impacts to adjacent sensitive receptors. Models and thresholds are readily available to quantify these potential health effects and evaluate their significance. As discussed above, the SCAQMD has developed LSTs for NOx, CO, PM_{10}, and $PM_{2.5}$ that represent the maximum emissions from a project's on-site activities that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts related to public health.[9] The applicable LSTs for assessing the potential local air quality impacts that could be generated by the Project's on-site emissions during construction and operations are presented in Table 2.3-2.

Carbon Monoxide Hot-Spots

Heavy traffic congestion can contribute to high levels of CO. Individuals exposed to these CO "hot-spots" may have a greater likelihood of developing adverse health effects (as described in Section 2.1., *Existing Setting*). The potential for the Project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed against the health-based CAAQS and NAAQS for CO. SCAQMD states that a project impact is significant if it causes or contributes to an exceedance of the following attainment standards:

- 1-hour standards of 20 ppm (state) and 35 ppm (federal), and
- 8-hour standards of 9.0 ppm (state) and 9 ppm (federal).

Cumulative Impacts

Potential cumulative air quality impacts would result when other projects' pollutant emissions combine to degrade air quality conditions below acceptable levels. This could occur on a local level (e.g., increased vehicle emissions at congested intersections or concurrent construction activities at sensitive receptor locations) or a regional level (e.g., potential O_3 impacts from multiple past, present, and reasonably foreseeable projects within the Basin). Given that both localized and regional pollution is regulated at the air basin level, the Basin is the resource study area for the purposes of air quality.

The Basin experiences chronic exceedances of the NAAQS and CAAQS, and is currently in nonattainment status for O_3 (federal and state standards), PM_{10} (state standards only), and $PM_{2.5}$ (federal and state standards). Consequently, cumulative development in the Basin as a whole could violate an air quality standard or contribute to an existing or projected air quality violation. Based on SCAQMD's cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. Conversely, if a project's emissions do not exceed the recommended daily thresholds for project-specific

[9] As noted previously, the SCAQMD's LSTs apply only to the on-site activities associated with a project and does not include emissions that are generated off-site, such as on-road haul or delivery truck trips.

impacts, its impacts would not be cumulatively considerable and would not contribute to nonattainment of applicable air quality standards in the Basin.

Project Design Features

The following project design feature (PDF) would be implemented as part of the Project:

PDF-AQ-1: The following measures will be employed by the Project to minimize construction-related emissions:

- All off-road diesel-powered equipment shall be required to meet Tier 4 final off-road emissions standards during all phases of Project construction. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Exceptions to these requirements are identified in 13 California Code of Regulations (CCR) Section 2485(d).
- Provide notification to trucks and vehicles in loading or unloading queues that their engines shall be turned off when not in use for more than 5 minutes.
- Electric equipment shall be used to the extent feasible in lieu of diesel or gasoline-powered equipment.
- All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.
- On-site construction activities shall utilize existing electric power sources to the extent feasible to minimize the use of higher polluting gas or diesel generators.
- Construction activities shall limit the hours of operation of heavy-duty equipment and/or the quantity of equipment in use to the extent feasible.
- During the application of architectural coatings for the new residential, restaurant, and commercial spaces, the Project shall use paints with a VOC content of 10 grams per liter (g/L) or less, which exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113.
- Sufficient dampening of the construction area shall be conducted as necessary to control dust caused by grading, hauling, and wind.
- Construction personnel shall secure loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Construction personnel shall clean all trucks and loads at the export site to prevent the blowing of dirt and spilling of loose earth.

- A sign shall be posted at the Project Site at a readily visible location that identifies the construction manager and a telephone number for any inquiries or complaints from residents regarding construction activities.

Project Impacts

Impact AQ-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

2016 AQMP

The 2016 AQMP was adopted by the SCAQMD as a program to lead the Basin into compliance with criteria pollutant standards and other federal requirements for which the Basin is not in compliance. The AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by the SCAG 2016 RTP/SCS (SCAQMD 2017c). SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies" (SCAQMD 2017c). Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and to not obstruct its implementation. The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess: (1) whether the project would directly obstruct implementation of the plan through an increase in the frequency or severity of existing air quality violations, or cause or contribute to, new violations, or delay timely attainment of air quality standards, and (2) whether it is consistent with the demographic and economic assumptions (typically land use related, such as resultant employment or residential units) upon which the plan is based (SCAQMD 1993).

Criterion No. 1

As discussed below under Impact AQ-2, the Project would not obstruct implementation of the AQMP because emissions resulting from its construction (with implementation of PDF AQ-1) and operation would not exceed SCAQMD's regional mass emissions thresholds and LSTs (refer to Tables 2.3-5, 2.3-6, 2.3-8, and 2.3-9). The Project's emissions would therefore not increase concentrations of criteria pollutants or their precursors in a manner that could obstruct SCAQMD's efforts to achieve attainment of ambient air quality standards for any criteria pollutant for which it is currently not in attainment, or jeopardize the current attainment status of the Basin for other criteria pollutants.

Criterion No. 2

The Project is also consistent with the AQMP in that the Project has incorporated control strategies set forth in the AQMP for achieving Basin-wide emission reduction goals and the Project is consistent with the demographic and economic assumptions upon which the plan is based. The following sections provide a discussion of the Project's incorporation of emission control measures and the Project's consistency with demographic and economic assumptions used in development of the AQMP.

Emission Control Measures

During the construction period, the Project would require contractors to adhere to CARB's on-road vehicle and off-road equipment requirements, which would limit the level of construction emissions caused by the Project. Project design features that limit the level of construction emissions are identified above in PDF-AQ-1. In addition, the Project would be required pursuant to state law to use contractors that are in compliance with the CARB Air Toxic Control Measure that limits heavy duty diesel motor vehicle idling to no more than 5 minutes at any given location.[10] The Project contractor(s) would also be required by state regulations to comply with the fleet on-road heavy duty vehicle emissions standards consistent with Measure MOB-08 from the 2016 AQMP (SCAQMD 2017c:4-25). These control strategies are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment, and are implemented by accelerating the replacement of older engines that produce higher pollutant emissions with newer engines that produce lower pollutant. The Project would comply with regulatory requirements to minimize short-term emissions from on-road and off-road diesel vehicles and equipment and SCAQMD's rules for controlling fugitive dust and other construction emissions, as identified in PDF-AQ-1. Compliance with these measures and requirements is consistent with the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities.

The AQMP includes transportation control measures that are intended to reduce regional mobile source emissions. Although much of the planned improvements in air quality identified in the AQMP are implemented at scales greater than at the project level (i.e., vehicle emissions standards), the Project's location, design, and land use would support a reduction in vehicle trips by increasing residential density on a major thoroughfare in an urbanized area near public transit.

The Project would require a zone change on a portion of the site, from the current C2-EZ1VL-CUGU (commercial) to RAS4-EZ1-CUGU (residential/accessory). The zone change is necessary to ensure that zoning for the Project Site is consistent with state law. Portions of the Project Site's current zoning are inconsistent with its Neighborhood Commercial General Plan designation. Therefore, the Project's zone change achieves the state law requirement to ensure that zoning is always consistent with the general plan. Moreover, the new zoning designations permit uniform development of multi-family residential uses; both the C2 and RAS4 zoning designation allow for R4 [multi-dwelling] uses under the City's zoning regulations. The new zoning designation would also permit the development of limited ground floor commercial uses, which allows for mixed-uses at the Project Site. Because the introduction of mixed-uses is a key principle in efforts to promote smart growth, the Project is consistent with the AQMP's mobile-source emission reduction strategies. The Project proposes increased density on an urban infill site by locating residential, and commercial uses in an identified Transit Priority Area (TPA) that is in close proximity to multiple bus stops with high frequency transit service, including Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within

[10] The Air Toxic Control Measure (13 CCR Section 2485) specifies measures to reduce public exposure to diesel particulate matter and other air contaminants by establishing idling restrictions, emission standards, and other requirements for heavy-duty diesel engines and alternative idle-reduction technologies to limit the idling of diesel-fueled commercial motor vehicles. The Air Toxic Control Measure is incorporated as PDF-AQ-1.

one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. By providing prewiring for EV charging spaces at the Project Site, the Project would also support the AQMP's emission reduction strategy of accelerating the deployment of zero and near-zero-emissions technologies.

The Project would also provide 30 short-term and 194 long-term bicycle parking consistent with Los Angeles Municipal Code (LAMC) Section 12.21.A.16(a)(1), which would encourage non-motorized transportation trips. Furthermore, as a mixed-use development that is located within walking distance of a variety of land uses in the area (including residential, office, commercial, industrial, school, and service uses), and multiple transit options, the Project would also encourage pedestrian travel and reduce vehicle trips and corresponding vehicle emissions. Thus, because Project's location, design, and land use would reduce vehicle trips, VMT, and associated emissions, the Project would be consistent with the mobile emission reduction goals of the AQMP.

Furthermore, the AQMP also promotes and encourages the use of solar energy systems to reduce criteria pollutant emissions over time. Control measure ECC-02 seeks criteria pollutant co-benefits from the implementation of required energy efficiency mandates such as California's Title 24 program. The Project would be prewired for rooftop solar use in accordance with the CALGreen Code, and would include solar panels on 15 percent of the rooftop space of the mixed-use building. Thus, the Project would be consistent with the energy emission reduction goals of the AQMP.

Demographic and Economic Projections

The Project would generate short-term construction jobs, but these workers are expected to be drawn from a regional pool of construction workers who travel among construction sites as individual projects are completed. Moreover, these jobs would be relatively small in number and temporary in nature. Therefore, the Project's construction jobs would not conflict with the long-term employment projections upon which the AQMP is based because such jobs would be relatively small in number and primarily drawn from the existing regional employment pool. Long-term operation of the Project would involve the employment of approximately 60 workers for the new commercial uses at the Project Site; these workers are expected to be drawn from the regional labor pool and result in, at most, only minimal population growth with respect to SCAG employment projections.[11] Thus, employment associated with Project operation would not conflict with the long-term employment projections used in the preparation of the AQMP due to the small number of employees that would be required for Project operation.

[11] SCAG projects employment in Los Angeles County alone would rise from 4.2 million in 2012 to 5.2 million in 2040 (SCAG 2016).

The Project is anticipated to be operational in 2023. The Project-related resident population growth is estimated to be approximately 1,050.[12] According to SCAG, the total population for the City of Los Angeles in 2018 is 4,059,665 persons (SCAG 2019). In 2023, the projected occupancy year of the Project, the City of Los Angeles is anticipated to have a population of approximately 4,184,605 persons,[13] a growth of 124,940 persons. The Project's estimated 1,050 residents would represent approximately 0.8 percent of the population growth forecasted by SCAG in the City of Los Angeles between 2018 and 2023. The Project's growth is consistent with the 2016 RTP/SCS goals and objectives under Senate Bill (SB) 375 to implement "smart growth" and state efforts to meet goals in the reduction of GHG. The 2016 RTP/SCS seeks improved "mobility and accessibility… to reach desired destinations with relative ease and within a reasonable time, using reasonably available transportation choices" (SCAG 2016). The 2016 RTP/SCS seeks to implement "strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing), and expanded housing and transportation choices" (SCAG 2016). The Project's proximity to public transit allows the Project's projected growth to be accommodated by existing and future transit options. Additionally, the Project is located in an urban infill location that is within walking distance to a variety of land uses that include office, commercial, school, and business service uses. As such, the Project's location and land use would reduce reliance on automobiles.

The population and employment growth resulting from the Project would be consistent with SCAG's regional forecast projections and, in turn, consistent with the growth projections accounted for in SCAQMD's AQMP. Therefore, the Project would not conflict with, or obstruct implementation of, the AQMP. This impact would be less than significant.

City's General Plan Air Quality Element

In addition to the Project's consistency with the 2016 AQMP, the Project's consistency with the applicable goals, objectives, and policies of the City's General Plan Air Quality Element is also evaluated and shown in Table 2.3-3 below.

[12] The Project population assumes an average household size of 2.43 based on the Citywide Person per Household factor for multifamily units provided by the Department of City Planning Demographics Unit and as published in the 2016 American Community Survey.

[13] Based on a linear interpolation of SCAG data prepared for the 2016 RTP/SCS.

Table 2.3-3: Consistency of Project with Applicable Goals, Policies, and Objectives of the City's General Plan Air Quality Element

Goal/Objective/Policy	Project Consistency Assessment
Goal 1: Good air quality and mobility in an environment of continued population growth and healthy economic structure.	**Consistent.** The Project would be consistent with SCAG RTP/SCS goals and objectives under SB 375 to implement "smart growth." The Project would provide residential uses and employment opportunities in proximity to job centers in Los Angeles where people can live and work and have access to convenient modes of transportation that provides options for reducing reliance on automobiles and minimizing associated air pollutant emissions. The Project would meet the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code. The Project would also reduce VMT as a result of its urban infill location in a TPA that is in proximity of public transportation, including multiple bus stops with high frequency transit service such as the Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Project would add new infill residential units, with convenient access to public transit, which would allow people to live near work and recreational amenities. As a result, the Project would provide people with convenient mobility options and a wide range of economic/employment opportunities.
Objective 1.1: It is the objective of the City of Los Angeles to reduce air pollutants consistent with the Regional Air Quality Management Plan, increase traffic mobility, and sustain economic growth citywide.	**Consistent.** As reflected above, the Project would be consistent with the SCAG growth projections that are used in preparing the AQMP. The Project would occupy a location that is highly accessible by regional and local bus lines and the Metrolink rail system. As such, the Project would be supportive of the Transportation Control Measures in the AQMP related to reducing vehicle trips for employees, visitors and residents. The Project would provide infill residential and commercial uses, which would allow people to live near work and recreational amenities.
Objective 1.3: It is the objective of the City of Los Angeles to reduce particulate air pollutants emanating from unpaved areas, parking lots, and construction sites.	**Consistent.** The Project would eliminate a large surface parking lot, two older buildings, and unpaved areas on the Project Site and replace them with a modern, energy-efficient building. The Project would also incorporate measures that would reduce particulate air pollutants from unpaved areas, parking lots, and construction sites. The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403. The Project would also comply with

Goal/Objective/Policy	Project Consistency Assessment
	the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks reducing exhaust DPM emissions. The Project contractor(s) would also be required by state regulations to comply with the fleet on-road heavy duty vehicle emissions standards consistent with Measure MOB-08 from the AQMP. These control strategies are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment, and are implemented by accelerating the replacement of older engines that produce higher pollutant emissions with newer engines that produce lower pollutant.
Policy 1.3.1: Minimize particulate emissions from construction sites.	**Consistent.** The Project would incorporate measures that would reduce particulate air pollutants from construction activity as described above under Objective 1.3.
Policy 1.3.2: Minimize particulate emissions from unpaved roads and parking lots associated with vehicular traffic.	**Consistent.** The Project would implement required control measures for construction-related fugitive dust pursuant to SCAQMD Rule 403, which would minimize particulate emissions from unpaved roads and parking lots associated with construction-related vehicular traffic. The Project would also reduce unpaved, unlandscaped areas on the Project Site.
Goal 2: Less reliance on single-occupant vehicles with fewer commute and non-work trips.	**Consistent.** The Project's land use characteristics would reduce trips and VMT due to its urban infill location in a TPA that includes nearby housing, employment, office, commercial, and service uses with nearby access to multiple nearby public transportation routes.
Objective 2.1: It is the objective of the City of Los Angeles to reduce work trips as a step towards attaining trip reduction objectives necessary to achieve regional air quality goals.	**Consistent.** The Project is near existing public transportation, including existing regional and local Metro bus lines and a Metrolink station. The Project would locate infill residential and commercial land uses in an area with access to multiple other destinations, including job centers and other commercial uses. These features would reduce trips and encourage residents to utilize alternative modes of transportation. In addition, the Project would implement a Transportation Demand Management (TDM) program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Strategies that would be implemented as part of the TDM program include educational programs, a transportation information center/kiosk, bicycle amenities, a contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements, promotion and support of carpools and rideshare, incentives for using alternative travel modes, and parking incentives and administrative support for formation of carpools/vanpools, and mobility hub support.
Policy 2.1.1: Utilize compressed work weeks and flextime, telecommuting, carpooling, vanpooling, public transit, and improve	**Consistent.** The Project would be near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and

Goal/Objective/Policy	Project Consistency Assessment
walking/bicycling related facilities in order to reduce vehicle trips and/or VMT as an employer and encourage the private sector to do the same to reduce work trips and traffic congestion.	pedestrian infrastructure to incentivize increased biking and walking. The Project includes 224 bicycle parking spaces for the residential and commercial uses of the Project in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating this development on a site located within walking distance of businesses in the area, as well as within close proximity to multiple transit options. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. In addition, Transportation System Management (TSM) improvements, including signal controllers and closed-circuit television (CCTV), would be installed at key intersections in the Project vicinity, which would reduce traffic congestion. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
Objective 2.2: It is the objective of the City of Los Angeles to increase vehicle occupancy for non-work trips by creating disincentives for single passenger vehicles, and incentives for high occupancy vehicles.	**Consistent.** The Project would install pre-wiring for EV charging spaces for 20 percent of the parking capacity at the Project Site. In addition, of the 20 percent of parking spaces prewired for electric charging, 5 percent would include installed chargers for immediate use by EVs. Furthermore, the Project's location would encourage non-automotive transportation to and from the Project Site. The Project would be located within proximity of existing public transportation and would provide on-site bicycle parking for building residents, employees, and visitors. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
Policy 2.2.1: Discourage single-occupant vehicle use through a variety of measures such as market incentive strategies, mode-shift incentives, trip reduction plans and ridesharing subsidies.	**Consistent.** The Project is near public transportation, including existing regional and local Metro bus lines and Metrolink rail, and would provide 224 bicycle parking spaces for residents, employees, and visitors. These features would encourage non-automotive transportation to and from the Project Site. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of

Goal/Objective/Policy	Project Consistency Assessment
	the TDM program are discussed above.
Policy 2.2.2: Encourage multi-occupant vehicle travel and discourage single-occupant vehicle travel by instituting parking management practices.	**Consistent.** The Project would include 224 bicycle parking spaces in accordance with LAMC requirements, which would encourage non-automotive travel. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
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.	**Consistent.** The Project would locate a mixed-use development in a TPA within walking distance of existing bus lines and a Metrolink station. The Project would also provide long-term and short-term bicycle parking which would help people have more opportunities to bicycle, walk and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that are easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people as they would have greater opportunities for pedestrian and bicycling activity and to reduce their reliance on automobiles.
Policy 4.2.2: Improve accessibility for the City's residents to places of employment, shopping centers and other establishments.	**Consistent.** The Project would provide a new mixed-use development that would include residential and commercial (including restaurant) land uses in an infill location within proximity to public transportation. The Project is located an urban area surrounded by commercial, residential, restaurant, office, and service uses.
Policy 4.2.3: Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	**Consistent.** The Project would be located within proximity of multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project includes 224 bicycle parking spaces for the residential and commercial uses of the Project in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating this development on a site located within walking distance of businesses in the area, as well as within close proximity to multiple transit options. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enliven the pedestrian experience. These features would reduce work trips and encourage employees to utilize alternative modes of transportation including public transportation, walking, and bicycling. Additionally, the Project would install pre-wiring for EV charging spaces for 20 percent of the parking capacity at

Goal/Objective/Policy	Project Consistency Assessment
	the Project Site. In addition, of the 20 percent of parking spaces prewired for electric charging, 5 percent would include installed chargers for immediate use by EVs.
Policy 4.2.5: Emphasize trip reduction, alternative transit and congestion management measures for discretionary projects.	**Consistent.** The Project's mixed-use nature and its location near multiple transportation routes along with the provision of 224 bicycle parking spaces would help reduce vehicular trips and encourage use of alternative transit. In addition, TSM improvements, including signal controllers and CCTV, would be installed at key intersections in the Project vicinity, which would reduce traffic congestion. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.
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.	**Consistent.** The Project would be required to comply with California Title 24 Building Standards Code and CALGreen Code. Energy saving and sustainable design would be incorporated throughout the Project. The Project would emphasize energy conservation, which would be achieved through the use of energy efficient Heating Ventilation and Air Conditioning (HVAC) and lighting systems. In addition, of the 20 percent of the parking spaces that would be prewired for charging, 5 percent would have chargers installed for immediate use by EVs. The Project would include also include solar panels on 15 percent of the mixed-used building's rooftop. As part of the Project, the existing 35 non-native and non-protected trees at the Project Site would be removed and replaced with a total 117 trees, resulting in a net increase of 89 trees. Of the 115 trees that would be planted, 15 would be street trees.
Objective 5.1: It is the objective of the City of Los Angeles to increase energy efficiency of City facilities and private developments.	**Consistent.** The Project would be required to comply with California Title 24 Building Standards Code and CALGreen Code. Energy saving and sustainable design would be incorporated throughout the Project. The Project would emphasize energy conservation, which would be achieved through the use of energy efficient HVAC and lighting systems. The Project would be prewired for EV charging and rooftop solar uses in accordance with the CALGreen Code. The Project would include also include solar panels on 15 percent of the mixed-used building's rooftop.

Goal/Objective/Policy	Project Consistency Assessment
Policy 5.1.2: Effect a reduction in energy consumption and shift to non-polluting sources of energy in its buildings and operations.	**Consistent.** As noted previously, the Project would incorporate energy saving and sustainable design throughout the Project in accordance with the Title 24 Building Standards Code and CALGreen Code. The Project would install pre-wiring for EV charging spaces for 20 percent of the parking capacity at the Project Site. In addition, of the 20 percent of parking spaces prewired for electric charging, 5 percent would include installed chargers for immediate use by EVs. Additionally, solar panels would be installed on 15 percent of the mixed-used building's rooftop.
Policy 5.1.4: Reduce energy consumption and associated air emissions by encouraging waste reduction and recycling.	**Consistent.** The Project would implement a construction waste management plan to divert all mixed construction and demolition debris to City certified construction and demolition waste processors, consistent with the Los Angeles City Council approved Council File 09-3029. During operations, the Project would be served by a solid waste collection and recycling service under the City's "recycLA" program, which offers recycling and organic waste recycling to businesses and large multi-family customers.
Policy 5.3.1: Support the development and use of equipment powered by electric or low-emitting fuels.	**Consistent.** As noted previously, the Project would incorporate energy saving and sustainable design throughout the Project in accordance with the Title 24 Building Standards Code and CALGreen Code. The Project would install pre-wiring for EV charging spaces for 20 percent of the parking capacity at the Project Site. In addition, of the 20 percent of parking spaces prewired for electric charging, 5 percent would include installed chargers for immediate use by EVs. Additionally, solar panels would be installed on 15 percent of the mixed-used building's rooftop.

Source: ICF, 2019.

As discussed in Table 2.3-3, the construction and operation of the Project would not conflict with or be inconsistent with applicable air quality policies of the General Plan. Thus, implementation of the Project would result in a less-than-significant impact.

Impact AQ-2: Would the Project result in a cumulatively considerable net increase in any criteria pollutant for which the Project region is a nonattainment area with respect to the applicable federal or state ambient air quality standard?

Short-term Construction Emissions

Construction associated with the Project would generate criteria pollutant emissions from the following activities: (1) demolition; (2) site preparation; (3) grading and excavation; (4) construction workers traveling to and from Project Site; (5) delivering construction supplies to, and hauling debris from, the Project Site; (6) fuel combustion by on-site construction equipment;

and (7) building construction, the application of architectural coatings, and paving activities. These construction activities have the potential to temporarily create emissions of dust, fumes, equipment exhaust, and other air contaminants. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. To provide the most conservative analysis, maximum daily emissions estimates, which are used to assess Project impacts, are based on the day with the greatest intensity of construction activities.

For purposes of this air quality analysis, construction of Project is anticipated to commence in October 2019 and continue over an approximately 39-month period before ending in August 2023. Construction activities are expected to occur six days per week, from Monday through Saturday, and last eight hours per day. Table 2.3-4 presents the construction phases and estimated durations assumed for purposes of this analysis. Actual construction timing may vary depending on market conditions at the time of construction.

Table 2.3-4: Anticipated Project Construction Schedule

Phases	Start (month/date/year)	Finish (month/date/year)	Duration (work days)
Demolition	10/1/2019	11/15/2019	40
Site Preparation	5/1/2020	6/2/2020	28
Grading/Excavation	6/3/2020	7/18/2020	40
Building Construction	7/19/2020	5/18/2023	886
Asphalt Paving	5/19/2023	6/1/2023	12
Architectural Coatings	5/19/2023	6/8/2023	18

Construction would require demolition of the existing one-story office and commercial structures at the Project Site followed by removal of the demolition debris. The removal of this debris is estimated to require approximately seven haul truck trips per day during the demolition phase. Additionally, during the site preparation phase it is estimated that up to 33 haul truck trips per day would occur to remove materials from the Project Site. During the grading phase, an estimated 89,000 cubic yards of material would require export from the Project Site, requiring approximately 139 haul truck round trips per day. Aside from haul truck trips, daily vendor/delivery truck trips would also occur during each of the construction phases for the Project. All of the aforementioned truck trips for Project construction activities would be round trips.

As discussed previously, the Project would implement PDF-AQ-1 during construction to minimize construction-related emissions. Measures under PDF-AQ-1 that would reduce pollutant emissions include the use of off-road diesel-powered equipment that meets Tier 4 final off-road emissions standards during all phases of Project construction, limiting the time equipment engines are running when not in use, limiting idling times by trucks and vehicles in loading and unloading queues, use of existing electric power sources to the extent feasible to minimize use of higher polluting gas or diesel generators, and using low-VOC paint that exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113 during the application of architectural coatings. The modeled peak daily emissions of criteria air pollutants and ozone precursors associated with

construction of the Project without and with PDF-AQ-1 are presented in Tables 2.3-5 and 2.3-6, respectively.[14]

Table 2.3-5: Regional Criteria Pollutant Construction Emissions Without PDF-AQ-1[a]

	Total Regional Pollutant Emissions (pounds per day)					
Construction Phase	**ROG[b]**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2019						
Demolition						
On-Site Emissions	3.3	34	18.9	< 0.1	2.4	1.7
Off-Site Emissions	0.2	2.6	1.1	< 0.1	0.3	< 0.1
Total Phase Emissions	**3.5**	**36.6**	**20.0**	**< 0.1**	**2.7**	**1.8**
2020						
Site Preparation						
On-Site Emissions	2.1	23.1	11.8	< 0.1	2.6	1.6
Off-Site Emissions	0.4	11.5	3.2	< 0.1	0.8	0.3
Total Phase Emissions	**2.5**	**34.6**	**15.0**	**0.1**	**3.4**	**1.8**
Grading						
On-Site Emissions	2.8	30.0	16.5	< 0.1	4.1	2.5
Off-Site Emissions	2.8	86.9	21.1	0.2	5.7	1.8
Total Phase Emissions	**5.6**	**116.9**	**37.6**	**0.3**	**9.7**	**4.3**
Building Construction						
On-Site Emissions	1.3	12.3	9.4	< 0.1	0.6	0.6
Off-Site Emissions	0.6	4.1	4.6	< 0.1	2.0	0.5
Total Phase Emissions	**1.9**	**16.4**	**14.0**	**< 0.1**	**2.7**	**1.1**
2021						
Building Construction						
On-Site Emissions	1.2	11.1	9.2	< 0.1	0.6	0.5
Off-Site Emissions	0.5	3.8	4.3	< 0.1	1.5	0.4
Total Phase Emissions	**1.7**	**15.0**	**13.4**	**< 0.1**	**2.0**	**0.9**

[14] The modeled construction emissions for the Project without PDF-AQ-1 are presented for information purposes only.

Construction Phase	Total Regional Pollutant Emissions (pounds per day)					
	ROG[b]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2022						
Building Construction						
On-Site Emissions	1.1	9.9	9.0	< 0.1	0.5	0.5
Off-Site Emissions	0.5	3.6	4.0	< 0.1	1.5	0.4
Total Phase Emissions	**1.6**	**13.5**	**13.0**	**< 0.1**	**2.0**	**0.9**
2023						
Building Construction						
On-Site Emissions	1.0	9.2	8.9	< 0.1	0.4	0.4
Off-Site Emissions	0.4	2.4	3.7	< 0.1	2.2	0.6
Total Phase Emissions	**1.4**	**11.6**	**12.6**	**< 0.1**	**2.6**	**1.0**
Paving and Architectural Coatings						
On-Site Emissions - Paving	0.6	6.1	8.6	< 0.1	0.3	0.3
Off-Site Emissions - Paving	0.1	0.4	0.5	0.0	0.2	< 0.1
On-Site Emissions – Architectural Coatings	159.4	1.7	2.4	0.0	0.1	0.1
Off-Site Emissions – Architectural Coatings	< 0.1	0.3	0.3	0.0	0.1	< 0.1
Total Phase Emissions[c]	**160.2**	**8.5**	**11.7**	**< 0.1**	**0.6**	**0.4**
Maximum Daily Regional Emissions During Project Construction	**160.2**	**116.9**	**37.6**	**0.3**	**9.7**	**4.3**

Source: CalEEMod modeling output provided in Appendix A.

Note: Totals may not add exactly due to rounding.

[a] The Project's regional construction emissions without PDF-AQ-1 are presented for information purposes only and thus are not compared to SCAQMD's regional pollutant thresholds.

[b] VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

[c] As the paving and architectural coatings phases would overlap during Project construction, the daily emissions from both of these phases are combined and presented.

ROG = reactive organic gases
NO_X = nitrogen oxides
CO = carbon monoxide
SO_X = sulfur oxides
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

Table 2.3-6: Regional Criteria Pollutant Construction Emissions With PDF-AQ-1

	Total Regional Pollutant Emissions (pounds per day)					
Construction Phase	**ROG [a]**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
2019						
Demolition						
On-Site Emissions	0.4	1.8	19.9	< 0.1	0.8	0.2
Off-Site Emissions	0.2	2.6	1.1	< 0.1	0.3	0.1
Total Phase Emissions	**0.6**	**4.4**	**21.0**	**< 0.1**	**1.1**	**0.3**
2020						
Site Preparation						
On-Site Emissions	0.4	1.5	13.6	< 0.1	1.6	0.7
Off-Site Emissions	0.4	11.5	3.2	< 0.1	0.8	0.3
Total Phase Emissions	**0.8**	**13.0**	**16.8**	**0.1**	**2.5**	**1.0**
Grading						
On-Site Emissions	0.5	2.0	19.0	< 0.1	2.8	1.4
Off-Site Emissions	2.8	86.9	21.1	0.2	5.7	1.8
Total Phase Emissions	**3.2**	**88.9**	**40.1**	**0.3**	**8.5**	**3.2**
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.6	4.1	4.6	< 0.1	2.0	0.5
Total Phase Emissions	**0.8**	**5.6**	**14.6**	**< 0.1**	**2.1**	**0.6**
2021						
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.5	3.8	4.3	< 0.1	1.5	0.4
Total Phase Emissions	**0.7**	**5.3**	**14.2**	**< 0.1**	**1.5**	**0.4**
2022						
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.5	3.6	4.0	< 0.1	1.5	0.4
Total Phase Emissions	**0.7**	**5.1**	**14.0**	**< 0.1**	**1.5**	**0.4**
2023						
Building Construction						
On-Site Emissions	0.2	1.5	10.0	< 0.1	< 0.1	< 0.1
Off-Site Emissions	0.4	2.4	3.7	< 0.1	2.2	0.6
Total Phase Emissions	**0.6**	**3.9**	**13.6**	**< 0.1**	**2.3**	**0.6**
Paving and Architectural Coatings						
On-Site Emissions - Paving	0.2	1.0	9.9	< 0.1	< 0.1	< 0.1
Off-Site Emissions - Paving	0.1	0.4	0.5	0.0	0.2	< 0.1
On-Site Emissions – Architectural Coatings	34.6	0.2	2.4	0.0	< 0.1	< 0.1
Off-Site Emissions – Architectural Coatings	< 0.1	0.3	0.3	0.0	0.1	< 0.1
Total Phase Emissions[b]	**34.8**	**1.8**	**13.0**	**< 0.1**	**0.3**	**0.1**

Construction Phase	Total Regional Pollutant Emissions (pounds per day)					
	ROG [a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Maximum Daily Regional Emissions During Project Construction	**34.8**	**88.9**	**40.1**	**0.3**	**8.5**	**3.2**
Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

Note: Totals may not add exactly due to rounding.

[a] VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

[b] As the paving and architectural coatings phases would overlap during Project construction, the daily emissions from both of these phases are combined and presented.

As shown in Table 2.3-6, the maximum level of daily construction emissions generated by the Project with implementation of PDF-AQ-1 would not exceed SCAQMD's daily significance thresholds for any criteria pollutants during any of the construction phases.

Long-term Operational Emissions

Implementation of the Project would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with energy sources (natural gas consumption,) area sources (landscaping activities, re-applications of architectural coatings, and use of consumer products), and mobile sources. According to the TIS prepared for the Project, development of the Project would result in a total net increase of 3,473 daily vehicle trips over existing baseline conditions (Gibson 2019). This vehicle trip estimate takes into account trip reductions from Project land use characteristics, including internal capture from co-locating residential and commercial land uses on the Project Site, and location of the Project Site in an urbanized area that is also in proximity of transit options.

Table 2.3-7 presents the daily operational emissions generated by the Project. As noted previously, for the purpose of conducting a conservative analysis the operational emissions presented for the Project does not take any credit for the operational emissions generated by the existing uses at the Project Site that would be displaced by the Project. Thus, the actual operational emissions that would result from Project implementation would be lower than the estimated emissions presented in Table 2.3-7. As shown, the Project would result in long-term regional emissions of criteria air pollutants and ozone precursors that would be below SCAQMD's applicable thresholds.

Table 2.3-7: Proposed Project Criteria Pollutant Operational Emissions

	Pollutant Emissions (pounds per day)					
Source	**ROG [a]**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Project						
Area Sources	10.9	0.5	35.7	< 0.1	0.2	0.2
Energy Sources	0.2	1.7	0.9	< 0.1	0.1	0.1
Mobile Sources	5.2	21.3	63.4	0.2	19.5	5.3
Total Operational Emissions	**16.3**	**23.5**	**100.1**	**0.2**	**19.9**	**5.7**
Regional Significance Thresholds	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.
Note: Totals may not add exactly due to rounding.
[a] VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

As discussed previously, SCAQMD's cumulative air quality impact methodology indicates that if an individual project results in air emissions of criteria pollutants that exceed the SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Because the Project's construction and operational pollutant emissions (refer to Tables 2.3-6 and 2.3-7) would not exceed the applicable SCAQMD's regional significance thresholds, the Project's emissions would not be cumulatively considerable.

Additionally, recognizing that SCAQMD's regional significance thresholds were established to achieve attainment of the NAAQS and CAAQS, which in turn define the maximum amount of an air pollutant that can be present in ambient air without harming public health, the Project's contribution of pollutant emissions is not expected to result in measurable human health impacts on a regional scale.

Impact AQ-3: Would the Project expose sensitive receptors to substantial pollutant concentrations?

The term *sensitive receptors* refers to uses associated with people who are considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirmed are more susceptible to respiratory distress and other air quality-related health problems on average than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Localized Pollutant Emissions

Construction

To assess the potential localized air quality impacts resulting from the Project on nearby sensitive receptors during construction, the daily on-site construction emissions generated at the Project Site were evaluated against SCAQMD's applicable construction LSTs for a 4.6-acre site. The nearest sensitive receptors to the Project Site include:

- The single-family residences located approximately 85 feet to the north, across West Strathern Street;
- The single-family residences located directly adjacent to the east of the Project Site boundary, to the north and south of Blythe Street; and
- The single-family residences located directly adjacent to the south of the Project Site boundary.

Because the mass rate look-up tables provided by SCAQMD provide only LSTs at receptor distances of 82, 164, 328, 656, and 1,640 feet, the LSTs for a receptor distance of 82 feet were used to evaluate the potential localized air quality impacts associated with the Project's peak-day construction emissions.[15] This distance most closely corresponds to the distance from the Project Site to nearby sensitive receptors in the SCAQMD LST lookup tables.

As discussed previously, the Project would implement PDF-AQ-1 during construction to minimize construction-related emissions. The localized on-site emissions that are estimated to occur during peak construction days for each year of the Project's construction schedule without and with PDF-AQ-1 are presented in Tables 2.3-8 and 2.3-9, respectively.[16]

Table 2.3-8: Localized Criteria Pollutant Construction Emissions Without PDF-AQ-1[a]

	Estimated Maximum Daily On-site Emissions (pounds per day)[b]			
Construction Year	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2019	34.1	18.9	2.4	1.7
2020	34.4	17.5	4.3	2.6
2021	11.3	9.4	0.6	0.5
2022	10.1	11.0	0.5	0.5
2023	9.3	10.9	0.5	0.4

Source: CalEEMod modeling output provided in Appendix A.

[a] The Project's localized construction emissions without PDF-AQ-1 are presented for information purposes only and thus are not compared against SCAQMD's LSTs.

[b] To account for combustion emissions associated with vehicles traveling within the Project Site during construction, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions from worker vehicle and vendor and haul truck trips would occur within the Project Site.

[15] According to SCAQMD's LST methodology, it is recommended that projects with boundaries closer than 82 feet (25 meters) from the nearest receptor use the LSTs for receptors located at 82 feet.

[16] The modeled localized construction emissions for the Project without PDF-AQ-1 are presented for information purposes only.

Table 2.3-9: Localized Criteria Pollutant Construction Emissions With PDF-AQ-1

	Estimated Maximum Daily On-site Emissions (pounds per day)[a]			
Construction Year	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2019	2.0	19.9	0.8	0.2
2020	6.4	20.0	3.1	1.5
2021	1.7	10.2	0.1	0.1
2022	1.7	10.2	0.1	0.1
2023	1.6	12.3	0.1	0.1
Applicable LSTs[b]	*164.3*	*1,347.6*	*13.1*	*7.4*
Threshold Exceeded?	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

[a] To account for combustion emissions associated with vehicles traveling within the Project Site during construction, it was conservatively assumed that 5 percent of the total daily off-site mobile emissions from worker vehicle and vendor and haul truck trips would occur within the Project Site.

[b] Construction LSTs for a 4.6-acre site in SRA 7 (East San Fernando Valley) at a 82-feet (25-meter) distance for sensitive receptors.

As shown in Table 2.3-9, with incorporation of PDF-AQ-1 the daily emissions generated on-site by construction of the Project would not exceed any of the applicable SCAQMD LSTs for a 4.6-acre site in SRA 7 over the course of the entire construction schedule.

Operations

Similar to the analysis of construction emissions, the daily amount of localized pollutant emissions generated on-site by the Project during operations was also assessed for its potential localized air quality impacts on nearby sensitive receptors. The operational emissions that would result from the Project were assessed against SCAQMD's applicable operational LSTs for a 4.6-acre site, as explained above. Table 2.3-10 presents the on-site operational emissions that would result from the Project. As shown, the Project's operations-related emissions generated on-site would not exceed SCAQMD's applicable operational LSTs.

For the purpose of conducting a conservative analysis, the on-site operational emissions presented for the Project does not take any credit for the on-site operational emissions generated by the existing uses at the Project Site that would be displaced by the Project. Thus, the actual operational emissions that would result from Project implementation would be lower than the estimated emissions presented in Table 2.3-10.

Table 2.3-10: Localized Criteria Pollutant Operational Emissions

	Estimated Maximum Daily On-site Emissions (pounds per day)[a]			
Emissions Source	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Area	0.5	35.7	0.2	0.2
Energy	1.7	0.9	0.1	0.1
Mobile	1.1	3.2	1.0	0.3
Total Emissions	**3.3**	**39.8**	**1.3**	**0.6**
Applicable LSTs[b]	164.3	1,347.6	3.7	1.8
Threshold Exceeded?	No	No	No	No

Source: CalEEMod modeling output provided in Appendix A.

Note: Totals may not add exactly due to rounding.

[a] Localized operational emissions estimates assume all of the Area Sources and Energy Sources of emissions occur on-site and 5 percent of emissions from Mobile Sources occur on-site.

[b] Operational LSTs for a 4.6-acre site in SRA 7 (East San Fernando Valley) at a 82-feet (25-meter) distance for sensitive receptors.

In summary, the estimated localized construction and operational emissions associated with the Project would not exceed any of SCAQMD's applicable LSTs for criteria pollutants. The LSTs represent the maximum emissions from a project that would not be expected to cause or contribute to a violation of any short-term NAAQS or CAAQS, and have been developed by the SCAQMD for each of the SRAs in the Basin. As noted previously, the NAAQS and CAAQS are health-protective standards that define the maximum amount of ambient pollution that can be present without harming public health. Consequently, projects with emissions below the applicable LSTs would not be in violation of the NAAQS or CAAQS and, thus, EPA and CARB health protective standards. Because the Project's localized construction and operational emissions would not exceed the LSTs, the Project would not cause or contribute to a violation of any health-protective CAAQS and NAAQS.

Toxic Air Contaminants

Construction

Construction of the Project would result in sensitive receptor exposure to temporary TAC emissions associated with DPM emissions from heavy construction equipment. As discussed above, the nearest sensitive receptors are the single-family residences located to the north, across Strathern Street, directly adjacent to the east, and directly adjacent to the south of the Project Site.

The use of diesel trucks and construction equipment during the Project construction period would result in emissions of TACs, particularly DPM. However, while construction activities are expected to occur over 39-month period, the activities generating the most DPM emissions, which would be during the site preparation and grading phases that require the use of heavy-duty diesel equipment for earthmoving, would only occur over an 11-week period. The majority of the Project's construction period would consist of the building phase, which would use smaller-scale equipment with lower horsepower that generates lower levels of DPM emissions. As shown in Table 2.3-6 above, the highest daily PM_{10} emissions generated during the Project's building phase would be

nearly four times lower than those generated during the Project's grading phase. Overall, the exposure of receptors to the Project's DPM emissions would be short-term in nature and much shorter than the assumed 70-year exposure period used to estimate lifetime cancer risks. Once construction activities have ceased, so too will the source emissions. Given the limited duration by which receptors would be exposed to DPM emissions, the risk of adverse health effects during the Project's construction period would be minor. Additionally, as discussed above under Impact AQ-1, the Project would not conflict with applicable AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. The Project would be required pursuant to state law to use contractors that are in compliance with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location, and Measure MOB-08 from the 2016 AQMP that requires the accelerated replacement of older on-road heavy-duty vehicles that produce higher pollutant emissions with newer engines that produce lower pollutant emissions. Compliance with these measures would minimize emissions of TACs during construction. Overall, emissions from construction equipment associated with the Project are expected to result in less than significant health risk impacts. SCAQMD's air quality handbook and website resources do not currently require the preparation of a quantitative health risk assessment (HRA) for construction-period TACs. Because of the limited exposure time for receptors during construction and the Project's incorporation of emissions controls through implementation of PDF-AQ-1, and because SCAQMD does not require construction HRAs to be prepared, no quantitative HRA is included in this analysis.

Operations

Typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes, automotive repair facilities, and dry cleaning facilities. As the Project consists of residential, retail, and restaurant uses, the Project would not include sources of substantive TAC emissions identified by the SCAQMD or CARB. Project operation would generate minimal amounts of TACs from the use of consumer products, periodic use of fuel-powered landscaping equipment, and from other activities associated with residential and commercial uses such as cleaning and reapplication of architectural coatings. However, these emissions are expected to be occasional and result in minimal exposure to off-site sensitive receptors. The Project's restaurant operations would be subject to SCAQMD Rule 1138-Control of Emissions from Restaurant Operations. The Project would comply with this rule by installing a control device, such as a catalytic oxidizer, on all char broilers in order to reduce PM and VOC emissions. Thus, operation of the Project would result in less than significant health risk impacts.

Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. CO hot spots at roadway intersections are typically found in areas with significant traffic congestion. CO is a public health concern because at high enough concentrations, it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. However, it should be noted that ambient concentrations of CO have declined dramatically in California because of existing controls and programs.

Most areas of the state, including the region in which the Project is located in, meet the state and federal CO standards (CARB 2004). As part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a revision to the Federal Attainment Plan for Carbon Monoxide (CO Plan) that was originally approved in 1992 was provided that included a CO hot spots analysis at four specified heavily traveled intersections in Los Angeles at the peak morning and afternoon time periods. These four intersection locations selected for CO modeling are considered to be worst-case intersections that would likely experience the highest CO concentrations. The CO hot spots analysis in the 2003 AQMP did not predict a violation of CO standards at the four intersections. Of these four intersections, the busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which was described as the most heavily congested intersection in Los Angeles County with an average daily traffic volume of approximately 100,000 vehicles per day. Based on the CO modeling, the 2003 AQMP estimated that the 1-hour and 8-hour concentrations at this intersection was 4.6 ppm and 3.5 ppm, respectively, which would not exceed the most stringent 1-hour CO standard of 20.0 ppm and 8-hour CO standards of 9 ppm. In reviewing the Project's TIS, it was determined that at buildout (2023) the highest daily traffic volumes generated at an intersection within the vicinity of the Project would be a cumulative total of 91,460 vehicles per day at the intersection of Lankershim Boulevard and Roscoe Boulevard/Tuxford Street. Because the daily amount of vehicles at this study intersection would not exceed 100,000 vehicles per day, it can be concluded that the Project would not exceed the most stringent 1-hour and 8-hour CO standards and no detailed CO hot spots analysis for the Project would be required. Therefore, the Project would not result in impacts related to CO hot spots, and would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded.

Impact AQ-4: Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment facilities, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The Project, which is a mixed-use development that consist of multi-family residential and commercial uses, includes none of these land uses. Thus, operation of the Project is not expected to result in objectionable odors for the neighboring uses and would not adversely affect a substantial number of people.

During construction of the Project, exhaust from equipment, activities associated with the application of architectural coatings and other interior and exterior finishes, and paving activities may produce discernible odors typical of most construction sites. Such odors would be, at worst, a temporary source of nuisance to adjacent uses, if at all, and would not affect a substantial number of people. As part of PDF-AQ-1, the Project would use low-VOC architectural coatings that exceed the requirements of SCAQMD Rule 1113, which would limit the odors associated with offgassing from those coatings. Odors associated with asphalt paving would only occur for a limited time period for the Project (12 work days), and the locations of paving activities would be distributed at the Project Site. Additionally, material deliveries and heavy-duty haul truck trips could create an occasional "whiff" of diesel exhaust for nearby receptors. These odors would not affect a substantial number of people because construction would be temporary, and

construction-generated emissions dissipate rapidly with increasing distance from the source. Overall, odors associated with Project construction would be temporary and intermittent in nature, and would not create a significant level of objectionable odors affecting a substantial number of people.

Chapter 3
Greenhouse Gases and Climate Change

3.1 Existing Setting

Global Climate Change

The phenomenon known as the greenhouse effect keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (IPCC 2007). Rising atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures—a phenomenon commonly referred to as global warming. Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (IPCC 2018). Large-scale changes to Earth's system are collectively referred to as climate change.

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterwards (IPCC 2018). Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

Principal Greenhouse Gases

The principle anthropogenic (human-made) GHGs listed by the IPCC that contribute to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources. California law and the CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 CCR Section 15364.5).

The primary GHGs of concern associated with the Project are CO_2, CH_4, and N_2O. Principal characteristics of these pollutants are discussed below.

- **Carbon dioxide** enters the atmosphere through fossil fuels (oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or *sequestered*) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (CO_2 has a global warming potential of 1 by definition). The GWP values used in this report are based on the IPCC Fourth Assessment Report (AR4) and United Nations Framework Convention on Climate Change reporting guidelines (IPCC 2007). The AR4 GWP values are consistent with those used in CARB's most recent GHG inventory and the 2017 Scoping Plan Update.

Table 3.1-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.1-1: Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime(years)[a]
CO_2	1	50–200
CH_4	25	9–15
N_2O	298	121

Source: CARB 2018b.

[a] Defined as the half-life of the gas.

CH_4 = methane
CO_2 = carbon dioxide
N_2O = nitrous oxide

GHGs are global pollutants, unlike criteria air pollutants and TACs. Criteria air pollutants and TACs occur locally or regionally, and local concentrations respond to locally implemented control measures. However, the long atmospheric lifetimes of GHGs allow them to be transported great distances from sources and become well mixed, unlike criteria air pollutants, which typically exhibit strong concentration gradients away from point sources. GHGs and global climate change represent cumulative impacts; that is, GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.

Statewide Greenhouse Gas Emissions Trends

A GHG inventory is a quantification of all GHG emissions and sinks[17] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

CARB has prepared a statewide emissions inventory covering 2000 to 2016, which demonstrates that GHG emissions have decreased by approximately 11 percent over that period (CARB 2018c). The largest reductions in GHG emissions have come from the electricity sector, which continues to decrease as a result of the state's climate policies that has led to a growth in wind generation and solar power. Emissions in 2016 from the transportation sector, which represents California's largest source of GHG emissions and contributed 39 percent of total annual emissions, increased by two percent from 2015. The main driver of this increase in GHG emissions is from the use of on-road gasoline vehicles, and is likely due to a combination of factors such as population growth, lower fuel prices, improved economic conditions, and higher overall employment (CARB 2018c). Table 3.1-2 shows statewide GHG emission estimates from 2006 to 2016 in California. Note that the 2020 target (1990 levels) is 426.6 million metric tons of CO_2e ($MMTCO_2e$) while the 2030 target (40 percent below 1990 levels) is currently set at 260 $MMTCO_2e$.

Table 3.1-2: California Greenhouse Gas Emissions Inventory 2006–2016

	Annual CO_2e Emissions (million metric tons)										
Sector	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**
Transportation	189	189	178	170	165	162	161	161	162	166	169
Industrial	93	90	91	88	92	91	91	94	94	92	90
Electric Power	105	114	120	101	90	88	95	90	88	84	69
Commercial/Residential	43	43	44	44	45	46	43	44	37	38	39
Agriculture	35	36	36	34	34	35	36	35	36	34	34
High Global Warming Potential	10	11	12	12	14	15	16	17	18	19	20
Recycling and Waste	8	8	8	8	8	8	8	9	9	9	9
Emissions Total	**483**	**490**	**487**	**457**	**448**	**444**	**450**	**448**	**444**	**441**	**429**

Source: CARB 2018c.

Totals may not add exactly due to rounding.

[17] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

3.2 Regulatory Framework

Federal

There is currently no federal overarching law specifically related to the reduction of GHG emissions. Under the Obama Administration, the U.S. EPA had been developing regulations under the FCAA pursuant to EPA's authority under the act. There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating units and refineries, as well as the EPA's issuance of an "Endangerment Finding" and a "Cause or Contribute Finding." The EPA has also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO_2 emissions from new and existing coal-fired power plants. However, on February 9, 2016 the Supreme Court issued a stay of these regulations pending litigation. Former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan in October 2017. The fate of the proposed regulations is uncertain given the change in federal administrations and the pending deliberations in federal courts. Therefore, no federal regulations specifically related to GHG emissions have been factored into the Project's impact analysis.

State

California has adopted statewide legislation addressing various aspects of climate change, GHG mitigation, and energy efficiency. Much of this establishes a broad framework for the state's long-term GHG and energy reduction goals and climate change adaptation program. The former and current governor(s) of California have also issued several EOs related to the state's evolving climate change policy. Summaries of key policies, executive orders (EOs), regulations, and legislation at the state level that are relevant to the Project are provided below in chronological order.

Assembly Bill 1493—Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation's first GHG standards for automobiles. AB 1493 required CARB to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (referred to previously as *Pavley II* and now referred to as the *Advanced Clean Cars* [ACC] measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 mpg in 2025.

Senate Bills 1078/107/X 1-2—Renewables Portfolio Standard and Renewable Energy Resources Act (2002, 2006, 2011)

SBs 1078 and 107, California's Renewables Portfolio Standard (RPS), obligated investor-owned utilities, energy service providers, and Community Choice Aggregations to procure an additional 1percent of retail sales per year from eligible renewable sources until 20 percent is reached by

2010. The California Public Utilities Commission and California Energy Commission (CEC) are jointly responsible for implementing the program. SB X 1-2, called the California Renewable Energy Resources Act, obligates all California electricity providers to obtain at least 33 percent of their energy from renewable resources by 2020. As noted below, SB 350 increased the RPS to 50 percent for 2030, and SB100 increased the RPS to 100 percent by 2045.

Executive Order S-03-05 (2005)

EO S-03-05 is designed to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80 percent below 1990 levels by 2050. EO S-3-05 also calls for the California Environmental Protection Agency to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. As a result of the scientific analysis presented in these biennial reports, a comprehensive Climate Adaptation Strategy was released in December 2009 following extensive interagency coordination and stakeholder input. The latest of these reports, Climate Action Team Biennial Report, was published in December 2010.

Assembly Bill 32—California Global Warming Solutions Act (2006)

AB 32 codified the state's GHG emissions target by requiring California's global warming emissions to be reduced to 1990 levels by 2020. Since being adopted, CARB, CEC, the California Public Utilities Commission, and the California Building Standards Commission have been developing regulations that will help the state meet the goals of AB 32 and EO S-03-05. The scoping plan for AB 32 identifies specific measures to reduce GHG emissions to 1990 levels by 2020 and requires CARB and other state agencies to develop and enforce regulations and other initiatives to reduce GHG emissions. The AB 32 Scoping Plan, first adopted in 2008, comprises the state's roadmap for meeting AB 32's reduction target. Specifically, the scoping plan articulates a key role for local governments by recommending that they establish GHG emissions-reduction goals for both their municipal operations and the community that are consistent with those of the state (i.e., approximately 15 percent below current levels) (CARB 2008).

CARB re-evaluated its emissions forecast in light of the economic downturn and updated the projected 2020 emissions to 545 $MMTCO_2e$. Two reduction measures (Pavley I and RPS [12–20 percent]) that were not previously included in the 2008 scoping plan baseline were incorporated into the updated baseline, further reducing the 2020 statewide emissions projection to 507 $MMTCO_2e$. The updated forecast of 507 $MMTCO_2e$ is referred to as the AB 32 2020 baseline. An estimated reduction of 80 $MMTCO_2e$ is necessary to lower statewide emissions to the AB 32 target of 427 million $MTCO_2e$ by 2020 (CARB 2014).

CARB approved the *First Update to the Scoping Plan* on May 22, 2014 (CARB 2014). The first update includes both a 2020 element and a post-2020 element. The 2020 element focuses on the state, regional, and local initiatives that are being implemented now to help the state meet the 2020 goal.

On December 14, 2017, CARB approved the *2017 Climate Change Scoping Plan Update* (referred to as 2017 Scoping Plan herein), which is the proposed strategy for achieving California's 2030

GHG emissions target. In addition to building on established programs, such as cap-and-trade regulation, and the low-carbon fuel standard (LCFS), the update addresses, for the first time, GHG emissions related to agriculture and forestry in California (CARB 2017).

Executive Order S-01-07—Low Carbon Fuel Standard (2007)

EO S-01-07, the Low-Carbon Fuel Standard (LCFS), mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, with a reduction in the carbon content of fuel by a quarter of a percent starting in 2011, and (2) that a low carbon fuel standard for transportation fuels be established in California. The EO initiates a research and regulatory process at CARB. In September 2018, the LCFS regulation was amended to increase the statewide goal to a 20-percent reduction in carbon intensity of California's transportation fuels by at least by 2030. Note that the majority of the emissions benefits due to the LCFS come from the production cycle (upstream emissions) of the fuel rather than the combustion cycle (tailpipe). As a result, LCFS-related reductions are not included in this analysis of combustion-related emissions of CO_2.

Senate Bill 375 (2008)

SB 375, signed into law by Governor Schwarzenegger on September 30, 2008, became effective January 1, 2009. This law requires the state's 18 Metropolitan Planning Organizations to develop the sustainable communities strategies (SCS) as part of their RTPs through integrated land use and transportation planning, and to demonstrate an ability to attain the GHG emissions reduction targets that the CARB established for the region by 2020 and 2035. This would be accomplished through either the financially constrained SCS as part of the RTP or an unconstrained alternative planning strategy. If regions develop integrated land use, housing, and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain CEQA review requirements.

Assembly Bill 341 (2011)

In 2011, AB 341 modified the California Integrated Waste Management Act and directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate 4 cubic yards or more of commercial solid waste per week or is a multifamily residential dwelling of 5 units or more must arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent by 2020.

Cap-and-Trade (2011, 2017)

CARB adopted the cap-and-trade program in October 2011. The California Cap-and-Trade program is a market-based system with an overall emissions limit for affected emission sources. Affected sources include in-state electricity generators, hydrogen production, petroleum refining, and other large-scale manufacturers and fuel suppliers and distributors. The original Cap-and-Trade program set a compliance schedule through 2020. AB 398 extends the program

through 2030 and requires CARB to make refinements, including establishing a price ceiling. Revenue generated from the Cap-and-Trade program is used to fund various programs. AB 398 established post-2020 funding priorities, to include (1) Air Toxics and Criteria Pollutants, (2) Low and Zero Carbon Transportation, (3) Sustainable Agricultural Practices, (4) Healthy Forests and Urban Greening, (5) Short-lived Climate Pollutants, (6) Climate Adaptation and Resiliency, and (7) Climate and Clean Energy Research.

Senate Bill 1383 (2013)

SB 1383, adopted in 2013, requires CARB to develop and implement a Short-Lived Climate Pollutant (SLCP) Strategy with the following 2030 goals: 40 percent reduction in methane; 40 percent reduction in hydrofluorocarbon (HFC) gases; and 50 percent reduction in anthropogenic black carbon. Per its directive, CARB adopted the SLCP Strategy, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and methane recovery to reducing natural gas leaks and consumption. The SLCP strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

Executive Order B-30-15 (2015)

Governor Jerry Brown signed EO B-30-15 on April 29, 2015. EO B-30-15 established a medium-term goal for 2030 of reducing GHG emissions by 40 percent below 1990 levels and requires the CARB to update its current AB 32 Scoping Plan to identify measures to meet the 2030 target. The EO B-30-15 supports EO S-3-05 but is only binding on state agencies.

Senate Bill 350 (2015)

SB 350 (De León, also known as the "Clean Energy and Pollution Reduction Act of 2015") was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions are to require the following by 2030: (1) an RPS of 50 percent and (2) a doubling of efficiency for existing buildings.

Senate Bill 32, California Global Warming Solutions Act of 2006: Emissions Limit, and Assembly Bill 197, State Air Resources Board, Greenhouse Gases, Regulations (2016)

SB 32 (Pavley) bill requires CARB to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. The bill specifies that SB 32 shall become operative only if AB 197 (Garcia) is enacted and becomes effective on or before January 1, 2017. AB 197 creates requirements to form the Joint Legislative Committee on Climate Change Policies; requires CARB to prioritize direct emission reductions from stationary sources, mobile sources, and other sources and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit; requires CARB to prepare reports on sources of GHGs, criteria air pollutants, and toxic air contaminants;

establishes 6-year terms for voting members of CARB; and adds two legislators as non-voting members of CARB. Both bills were signed by Governor Brown in September 2016.

CARB approved the 2017 Scoping Plan Update in December 2017, which builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan Update proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases), further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the cap-and-trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target. The Scoping Plan Update also recommends that local governments aim to achieve community-wide efficiency of 6 $MTCO_2e$ per capita by 2030 and 2 $MTCO_2e$ per capita by 2050 to be used in local climate action planning. These efficiency targets would replace the "15 percent from 2008 levels by 2020" approach recommended in the initial Scoping Plan, which would allow for local governments to grow in a sustainable manner (CARB 2016b).

Senate Bill 100 (2018)

SB 100 (De León, also known as the "California Renewables Portfolio Standard Program: emissions of greenhouse gases") was approved by the California legislature and signed by Governor Brown in September 2018. The bill increases RPS in 2030 from 50 percent to 60 percent and establishes a goal of 100 percent RPS by 2045. SB 100 is a legislative action that was signed into law after the 2017 Scoping Plan was adopted. The Scoping Plan modeling is based on the SB 350 target of 50 percent renewables by 2030. However, the new SB 100 target of 60 percent renewables by 2030 and 100 percent renewables by 2045 supersede the goals of SB 350 and will be included in future Scoping Plan updates.

Executive Order B-55-18 (2018)

EO B-55-18 was approved by the California legislature and signed by Governor Brown in September 2018. EO B-55-18 acknowledges the environmental, community, and public health risks posed by future climate change. It further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. While the United States was not party to the agreement, California is committed to meeting the Paris Agreement goals and going beyond them wherever possible. Based on the worldwide scientific agreement that carbon neutrality must be achieved by midcentury, EO B-55-18 establishes a new state goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. The EO charges the CARB with developing a framework for implementing and tracking progress towards these goals. This EO extends EO S-3-05, but is only binding on state agencies. However, given this directive, it is likely that the carbon neutral goal by 2045 will make its way into future updates to the Scoping Plan, which must be updated every five years.

Green Building Code and Title 24 Updates

The California Green Building Standards (CALGreen) Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 CCR). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of CEC requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2016 and took effect on January 1, 2017. The standards are to be updated periodically, with the next update planned for 2019.

Regional

South Coast Air Quality Management District

As discussed previously in Chapter 2.2 of this report, the SCAQMD has primary responsibility for development and implementation of rules and regulations to attain the NAAQS and CAAQS as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations within the Basin. CARB's Scoping Plans do not provide an explicit role for local air districts with respect to implementing the reduction goals of SB 32 and AB 32, but CARB does state that they will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting but also through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

On December 5, 2008, SCAQMD Governing Board considered draft GHG guidance, and adopted a staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial permitting projects where SCAQMD is the lead agency. The board letter, resolution, interim GHG significance threshold, draft guidance document, and attachments can be found under Board Agenda Item 31 of the December 5, 2008, Governing Board Meeting Agenda[18]. In its draft guidance document, SCAQMD included evidence and rationale for developing thresholds, specifically citing CEQA Guidelines Section 15064.7(a) *("each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects"*) and Subsection (b) (*"Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence"*). SCAQMD developed thresholds for both stationary sources as well as for land use development projects. SCAQMD's recommended GHG significance threshold underwent a public review process as part of stakeholder working group meetings that were open to the public. The draft guidance document provides the supporting analysis and methodology for developing the GHG significance thresholds for both stationary sources as well as for land use development projects. After completion of the public process, the proposed interim thresholds for land use

[18] Board Agenda Item 31 data available at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds

development projects were brought to the SCAQMD's Governing Board but were not formally adopted, while the threshold involving industrial permitting projects where SCAQMD is lead agency was adopted.

For industrial process, the SCAQMD has formally adopted a 10,000 $MTCO_2e$ threshold for industrial (permitted) facilities where SCAQMD is the lead agency. This industrial source threshold is not appropriate for use on residential, commercial, or mixed-use projects such as the Project, since it is not associated with industrial processes.

SCAQMD noted that the proposed interim GHG significance thresholds for evaluation of land use development projects was only a recommendation for lead agencies and not a mandatory requirement. The GHG significance threshold may be used at the discretion of the local lead agency. The draft GHG guidance identified a tiered approach for determining the significance of GHG emissions, one of which included the use of numerical screening thresholds. With respect to numerical GHG significance thresholds, the SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions:

- Option #1 includes using separate numerical thresholds for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 MTCO2e/year), and mixed-use projects (3,000 MTCO2e/year).
- Option #2 is use of a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year. SCAQMD's most recent recommendation per its September 2010 meeting minutes is to use option #2.

However, these numerical thresholds have not been adopted by SCAQMD.

Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS)

SCAG is the Metropolitan Planning Organization (MPO) for the six-county region that includes Los Angeles, Orange, Riverside, Ventura, San Bernardino and Imperial counties. The 2016 RTP/SCS includes commitments to reduce emissions from transportation sources to comply with SB 375. Goals and policies included in the 2016 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling). SCAG promotes the following policies and actions related to active transportation to help the region confront congestion and mobility issues and consequently reduce emissions:

- Implement Transportation Demand Management (TDM) strategies including integrating bicycling through folding bikes on buses programs, triple racks on buses, and dedicated racks on light and heavy rail vehicles;
- Encourage and support local jurisdictions to develop "Active Transportation Plans" for their jurisdiction if they do not already have one;
- Expand Compass Blueprint program to support member cities in the development of bicycle plans;

- Expand the Toolbox Tuesday's program to encourage local jurisdictions to direct enforcement agencies to focus on bicycling and walking safety to reduce multimodal conflicts;
- Support local advocacy groups and bicycle-related businesses to provide bicycle-safety curricula to the general public;
- Encourage children, including those with disabilities, to walk and bicycle to school;
- Encourage local jurisdictions to adopt and implement the proposed SCAG Regional Bikeway Network; and
- Support local jurisdictions to connect all of the cities within the SCAG region via bicycle facilities.

SB 375 requires CARB to develop regional CO_2 emission reduction targets, compared to 2005 emissions, for cars and light trucks only for 2020 and 2035 for each MPO. SB 375 also requires that each MPO prepare an SCS as part of the RTP to reduce CO_2 by better aligning transportation, land use, and housing. For SCAG, the SCS targets through September 30, 2018 require SCAG to reduce per capita emissions eight percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035 (SCAG 2016). The 2016 RTP/SCS states that the region will meet or exceed the SB 375 per capita targets, lowering regional per capita GHG emissions (below 2005 levels) by eight percent by 2020 and 18 percent by 2035. The 2016 RTP/SCS also states that regional 2040 per capita emissions would be reduced by 22 percent, although CARB has not established a 2040 per capita emissions target. After September 30, 2018, SCAG's SCS targets increased and required SCAG to reduce per capita GHG emissions from passenger vehicles by approximately eight percent by 2020 and 19 percent by 2035 over base year 2005 (CARB 2019d).

Local

Sustainable City pLAn

Under Mayor Eric Garcetti the City of Los Angeles released its first-ever Sustainable City pLAn (pLAn) on April 8, 2015 (City of Los Angeles 2015). Recognizing the risks posed by climate change, the pLAn set time-bound outcomes on climate action, most notably to reduce GHG emissions by 45 percent by 2025, 60 percent by 2035, and 80 percent by 2050, all against a 1990 baseline. Through the completion and verification of the GHG inventory update, the City concluded that:

- The City accounted for approximately 36.2 $MMTCO_2e$ in 1990;
- The City's most recent inventory shows that emissions fell to 29 $MMTCO_2e$ in 2013; and
- Los Angeles' emissions are 20 percent below the 1990 baseline as of 2013, putting Los Angeles nearly halfway to the 2025 pLAn reduction target of 45 percent.

In addition, the 20 percent reduction exceeds the 15 percent statewide goal listed in the First Update to the AB 32 Scoping Plan.

On April 29, 2019, Mayor Garcetti released the Los Angeles' Green New Deal, which is the first four-year update to the 2015 pLAn (the Sustainable City pLAn, as updated by Los Angeles' Green New Deal, is referred to herein as the 2019 updates to the pLAn). This updated plan augments, expands, and elaborates in even more detail the City's vision for a sustainable future and assigns accelerated GHG emission reduction targets and new aggressive goals to place the City on the path to a zero carbon future by 2050. The 2019 updates to the pLAn accelerate the following targets (City of Los Angeles 2019):

- LADWP will supply 55 percent renewable energy by 2025; 80 percent by 2036; and 100 percent by 2045
- Sourcing 70 percent of the City's water locally by 2035, and capture 150,000 acre feet/year (AFY) of stormwater by 2035
- Reduce building energy use per square feet for all types of buildings 22 percent by 2025; 34 percent by 2035; and 44 percent by 2050
- Reduce vehicle miles traveled (VMT) per capita by at least 13 percent by 2025, 39 percent by 2035, and 45 percent by 2050
- Ensure 57 percent of new housing units are built within 1,500 feet of transit by 2025; and 75 percent by 2035
- Increase the percentage of zero emission vehicles in the City to 25 percent by 2025; 80 percent by 2035; and 100 percent by 2050
- Create 300,000 green jobs by 2035; and 400,000 by 2050
- Convert all City fleet vehicles to zero emission where technically feasible by 2028
- Reduce municipal GHG emissions 55 percent by 2025 and 65 percent by 2035 from 2008 baseline levels, reaching carbon neutral by 2045

Overall, the updated plan calls for reducing GHGs to 50 percent below 1990 levels by 2025; 73 percent below 1990 levels by 2035; and becoming carbon neutral by 2050. By following the 2019 updates to the Sustainable City pLAn, the City is expected to reduce an additional 30 percent in GHG emissions above and beyond the 2015 pLAn.

City of Los Angeles Green Building Code

In April 2008, the City of Los Angeles adopted the Green Building Program Ordinance to address the impact on climate change from new development. In 2011, 2014, and 2016, Chapter IX, Article 9, of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, was amended to incorporate various provisions of the CALGreen Code. The Los Angeles Green Building Code includes mandatory requirements and elective measures for three categories of buildings: (1) low-rise residential buildings; (2) non-residential and high-rise residential buildings; and (3) additions and alternations to residential and non-residential buildings.

3.3 Greenhouse Gases and Climate Change Impacts and Mitigation Measures

Methodology

Project related activities would result in short-term and long-term generation of GHG emissions during construction and operation. The GHG emissions from the Project were quantified using the same methods described above for estimating criteria pollutants.

Short-term Construction-Generated Emissions

During Project construction, GHG emissions would be generated by off-road, heavy-duty construction equipment at the Project Site and worker, vendor, and haul truck vehicle trips traveling to and from the Project Site. As was conducted for the criteria pollutant analysis, the Project's construction-related GHG emissions have been modeled using the most recent version of CalEEMod (Version 2016.3.2) and based on Project-specific construction data (e.g., schedule, equipment, truck volumes) provided by the Project applicant, where available. Where Project-specific information was not available, reasonable assumptions based on other similar projects and default model settings were used to estimate GHG emissions. The modeling output files are provided in Appendix A of this report.

Based on SCAQMD's 2008 *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* document, SCAQMD recommends that for construction GHG emissions the total emissions for a project be amortized over a 30-year period and added to its operational emission estimates (SCAQMD 2008). Thus, in accordance with SCAQMD's recommendation, the Project's construction GHG emissions have been amortized over a 30-year lifetime of the Project (i.e., total construction GHG emissions were divided by 30) and the resulting annual emissions were added to the Project's estimated annual operational GHG emissions.

Long-term Operational Emissions

The Project's operational GHG emissions, including GHGs generated by direct and indirect sources, are estimated according to the recommended methodologies from SCAQMD. Direct sources include emissions such as vehicle trips, natural gas consumption, and landscape maintenance. Indirect sources include off-site emissions occurring as a result of the Project's operations such as electricity and water consumption and solid waste disposal. As was conducted for the criteria pollutant analysis, the direct and indirect GHG emissions generated during the Project's operations have been estimated using CalEEMod. Modeling is based on Project-specific data (e.g., size and type of proposed uses), design features, and vehicle trip information provided by the TIS prepared for the Project.[19] While the proposed residential dwelling units do not include fireplaces, the Project's outdoor courtyard includes two fireplaces

[19] Gibson Transportation Consulting, Inc. September 2019. Draft Transportation Impact Study for the 7940 Lankershim Boulevard Mixed-Use Project, Los Angeles, California.

and two fire pits. As such, fireplace emissions from these outdoor amenities have been modeled in CalEEMod by assuming four residential units would be supplied with fireplaces.

The vehicle trips modeled in CalEEMod take into account trip reductions from internal capture from co-locating different land uses on the Project Site and from nearby access to public transportation. Additionally, as discussed above, because the Project qualifies as a transit priority project under SB 375 and thereby meets the eligibility criteria for CEQA streamlining under PRC 21159.28, the mobile GHG emissions generated by cars and light-duty truck trips associated with the Project would not need to be included in the environmental analysis. As such, the mobile GHG emissions estimated for the Project in this analysis excludes those emissions from passenger cars and light-duty trucks. The GHG emission calculations for the Project also include credits or reductions for GHG-reducing measures that are required by regulation, such as reductions in energy and water demand from the City's Green Building Code, which incorporates by reference the CALGreen Code. Additionally, because the proposed residential uses would be supplied with Energy Star appliances, the reduction in energy usage have also been accounted in CalEEMod based on the most recent data from the Energy Star program regarding energy efficiencies for clothes washers, dishwashers, refrigerators, and ceiling fans. The solid waste GHG emissions associated with the Project also accounts for the most recent solid waste diversion rate achieved by the City that has been reported, which was approximately 76 percent in 2012 (City of Los Angeles 2013).

Similar to the criteria air pollutant analysis, the GHG emissions that are generated by the existing construction yard currently operating at the Project Site have not been accounted for in this analysis. For the purpose of conducting a conservative analysis, the Project's operational GHG emissions were assessed in this analysis without taking any emissions credit from the existing uses that currently occupy the Project Site. Thus, the actual operational GHG emissions that would result from Project implementation would be lower than the emissions reported in this analysis.

Consistency with Greenhouse Gas Reduction Plan, Policies, and Actions

The Project's GHG emissions are also evaluated by assessing the Project's consistency with applicable GHG reduction strategies and local actions adopted by the City. As discussed further below, the City has established goals and actions to reduce the generation and emission of GHGs from both public and private activities in the Sustainable City pLAn.

In the 2010 CEQA Guidelines amendments, lead agencies were encouraged to tier from programmatic mitigation plans and programs when they perform individual project analyses. As indicated above, the City does not have a programmatic mitigation plan to tier from, such as a GHG reduction plan, as recommended in the relevant amendments to the CEQA Guidelines. However, the Mayor's office has released the Sustainable City pLAn, and the City has adopted the Los Angeles Green Building Code, which encourage and require applicable projects to implement energy efficiency measures. In addition, Project consistency with state and regional regulatory plans and policies to reduce GHG emissions are analyzed herein, including CARB's 2017 Scoping Plan and SCAG's 2016 RTP/SCS.

Thresholds of Significance

CEQA Guidelines

Appendix G of the CEQA Guidelines provides screening questions that are intended to assist lead agencies when assessing a project's potential impacts regarding GHG emissions, as follows::

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

With respect to GHG emissions, CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency shall make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency shall have the discretion to determine, in the context of a particular project, whether to: (1) quantify GHG emissions resulting from a project and/or (2) to rely on qualitative analysis or performance-based standards.

Pursuant to CEQA Guidelines Section 15064.4(a), the analysis presented herein quantifies GHG emissions resulting from the Project and provides a good-faith effort to describe, calculate, and estimate GHG emissions resulting from the Project and compares those emissions with the chosen threshold level.

CEQA Guidelines Section 15064.4(b) also provides that, when assessing the significance of impacts from GHG emissions, a lead agency should focus the analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change and consider a timeframe that is appropriate for the project. The lead agency's analysis should reasonably reflect evolving scientific knowledge and state regulatory schemes, and consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The analysis of the potential impacts from the Project's GHG emissions follows this approach.

Available Thresholds

The CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. Instead, they leave the determination of the significance of GHG emissions up to the lead agency and authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (CEQA Guidelines Sections 15064.7[b] and 15064.7[c]). Additionally, any

public agency may also use an environmental standard as a threshold of significance, as it would promote consistency in significance determination and integrates environmental review with other environmental program planning and regulations (CEQA Guidelines Section 15064.7[d]).

As discussed under Section 3.2, Regulatory Framework, AB 32 establishes the requirement for reducing statewide GHGs to 1990 emissions levels by 2020. A number of air quality management agencies throughout the state have drafted or adopted various threshold approaches and guidelines for analyzing 2020 operational GHG emissions in CEQA documents. The different thresholds include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs. The California Supreme Court's *Newhall Ranch* decision confirmed that, when an agency chooses to rely completely on a single quantitative method to justify a no-significance finding, "CEQA demands the agency research and document the quantitative parameters essential to that method" (*Center for Biological Diversity v. Department of Fish and Wildlife* [2015] Cal.App.4th). The *Golden Door* case reinforced the message from the Newhall Ranch decision that analyses need to provide substantial evidence to support significance thresholds selected for use in the CEQA analysis (*Golden Door Properties v. County of San Diego* [2018] Cal.App.4th.). Further, the appellate court ruling in City of *Long Beach v. City of Los Angeles* held that a qualitative analysis of consistency with state GHG reductions plans is adequate and projects that generate a significant amount of GHG emissions may still be consistent with state and local GHG reduction plans (*City of Long Beach v. City of Los Angeles* [2018] 19 Cal.App.5th 465). A qualitative analysis is also supported by the CEQA Guidelines and the SB 97 Final Statement of Reasons.[20]

The City has not adopted a threshold with supporting analysis setting forth approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. Additionally, although the City prepared the Sustainable City pLAn in 2015, followed by the update in 2019, these plans do not adopt thresholds of significance and otherwise do not meet the criteria established under CEQA Guidelines Section 15183.5(b) to be considered as qualified GHG reduction plans.

The SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) but did form a GHG significance threshold working group to further evaluate potential GHG significance thresholds.[21] In October 2008, SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds.[22] Within its October 2008 document, the SCAQMD proposed interim CEQA GHG indicators of

[20] See CEQA Guidelines Sections 15064.4; 15064.7; California Natural Resources Agency, Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Case Emissions Pursuant to SB 97, December 2009. Available: <http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf>. Accessed: September 4, 2019.

[21] South Coast Air Quality Management District. 2008. Greenhouse Gases CEQA Significance Thresholds. Available: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds. Accessed: September 4, 2019.

[22] South Coast Air Quality Management District. 2008. Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold. October. Available: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf?sfvrsn=2. Accessed: September 4, 2019.

significance using a tiered approach. Under Tier 1, projects that are exempt from CEQA would be less than significant. Under Tier 2, projects that are consistent with an adopted GHG reduction plan would be less than significant. Under Tier 3, all non-industrial land use projects, including mixed-use projects that emit 3,000 $MTCO_2e$ per year or less would be less than significant.[23] Tier 4 uses performance standards that require projects to demonstrate that they meet a percent emission reduction target below business as usual to determine significance for commercial/residential projects that emit more than 3,000 $MTCO_2e$ per year.[24]

In November 2009, the working group proposed an additional Tier 4 standard that uses performance standards, including a requirement for projects to demonstrate that they meet a service population metric to determine significance for commercial/residential projects that emit more than 3,000 $MTCO_2e$ per year.[25,26] The working group proposed a project-level target of 4.6 $MTCO_2e$ per service population, based on calculations performed by the Bay Area Air Quality Management District.[27] On December 5, 2008, the SCAQMD Governing Board adopted a staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ for stationary source/industrial projects when the SCAQMD is lead agency.[28] In the September 2010 presentation by the working group, the Tier 4 performance standard of a percent emission reduction target below business as usual referred to an approach used by the San Joaquin Valley Air Pollution Control District that uses a comparison of a development's GHG emissions to a business-as-usual scenario.[29,30]

The working group did not recommend a specific numeric reduction target in the September 2010 presentation.[31] In addition, in September 2010, the working group recalculated the target as 4.8 $MTCO_2e$ per service population by dividing the 2020 statewide GHG reduction target for the land use sector by the sum of total statewide population and land use sector employment, as explained in the September 28, 2010, minutes to Stakeholder Working Group #15 (the prior 4.6

[23] Ibid.

[24] Ibid.

[25] South Coast Air Quality Management District. 2009. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group #14. November 19. Available: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-14/ghg-meeting-14-main-presentation.pdf?sfvrsn=2. Accessed: September 4, 2019.

[26] The SCAQMD defines service population as including population and employment.

[27] Bay Area Air Quality Management District. 2009. Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en. Accessed: September 4, 2019.

[28] South Coast Air Quality Management District. 2008. Greenhouse Gases CEQA Significance Thresholds.

[29] South Coast Air Quality Management District. 2010. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15. September 28. Available: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-main-presentation.pdf?sfvrsn=2. Accessed: September 4, 2019.

[30] San Joaquin Valley Air Pollution Control District. 2009. Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA. December 17. Available: http://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf. Accessed: September 4, 2019.

[31] South Coast Air Quality Management District. n.d. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15.

$MTCO_2e$ per service population target was calculated by the Bay Area Air Quality Management District by dividing the 2020 statewide GHG reduction target for the land use sector by the sum of the total statewide population and total statewide employment).[32] The aforementioned working group has been inactive since 2011, and the SCAQMD has not formally adopted any GHG significance threshold for land use development projects. It should be noted that the SCAQMD interim thresholds were developed in conjunction with AB 32 and do not address post-2020 GHG reduction goals.

Threshold Approach

In the absence of quantitative GHG thresholds and/or a qualified GHG reduction plan for use by a project to tier or streamline its environmental analysis, CEQA provides that a lead agency could rely on regulatory compliance to show a less-than-significant GHG impact if the project complies with or exceeds those programs adopted by CARB or other state agencies. As discussed previously, the Project is expected to be in operation by 2023. Beyond 2020, the state has established a GHG emissions reduction target for 2030 that has been codified in law through SB 32 and the 2017 Scoping Plan was adopted to meet this goal. Therefore, 2030 marks the next statutory statewide milestone target applicable to the Project. The plan to achieve these statewide emission reduction goals is provided by the 2017 Scoping Plan (and future updates), and demonstrating consistency with the 2017 Scoping Plan will demonstrate that the Project is doing its fair share towards achieving statewide reduction targets.

Overall, of the threshold options discussed above, the approach used in this analysis is compliance with regulatory programs, which is appropriate in addressing the Project's post-2020 completion and operation. Under this threshold approach, the Project's GHG emissions are evaluated for each major emission sector (e.g., energy, water, waste, mobile, and stationary) addressed in the 2017 Scoping Plan to determine whether the Project's emissions would conflict with applicable sector-specific reduction targets and strategies identified in the 2017 Scoping Plan to meet the state's 2030 target under SB 32.

In the absence of any adopted quantitative threshold, and in accordance with case law and the CEQA Guidelines, the lead agency has determined that the Project would not have a significant effect on the environment if the Project is found to be consistent with applicable regulatory plans and policies to reduce GHG emissions, including the emissions reduction measures discussed within CARB's 2017 Scoping Plan, SCAG's 2016 RTP/SCS, and the City's Sustainable City pLAn and Green Building Code.

Note that GHGs and climate change are exclusively cumulative impacts; there are no non-cumulative GHG emissions impacts from a climate change perspective (California Air Pollution Control Officers Association 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of Project-related GHG emissions.

[32] South Coast Air Quality Management District. n.d. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15.

SB 375 CEQA Streamlining

Section 21159.28 of the Public Resources Code (PRC), which was added under SB 375 that was enacted in 2008, provides that residential and mixed-use projects that meet certain criteria are eligible for CEQA streamlining, provided that CARB has accepted the Metropolitan Planning Organization's determination that the project area's SCS achieves the GHG emission reduction targets established by CARB for the region. In cases where a project meets the criteria under Section 21159.28, the project would qualify for SB 375 CEQA Streamlining whereby no environmental analysis is required of: (1) project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network or (2) growth-inducing impacts.

As the Project has been determined to meet the criteria of Section 21159.28 for CEQA streamlining benefits, no analysis of GHG emission impacts resulting from passenger cars and light-duty trucks is required.

Project Design Features

The following GHG-reducing PDF measure, which lists specific baseline development features that would be implemented by the Project Applicant and agreed to by the City, would be incorporated into the Project:

PDF-GHG-1:

- The Project shall install energy efficient appliances.
- The Project shall install low-flow plumbing fixtures.
- The Project shall provide 19 short-term and 183 long-term bicycle parking spaces at the Project Site.
- The Project shall plant a total of 117 trees, 15 of which would be street trees, along with native and drought-tolerant vegetation such as shrubs and ground cover.
- The Project shall install solar panels on 15 percent of the rooftop space of the proposed mixed-use building.
- The Project shall install prewiring for electrical vehicle (EV) charging for 20 percent of the total parking spaces provided at the Project Site.
- The Project shall provide EV parking spaces that are installed with chargers and ready for immediate EV use for 5 percent of the total parking spaces provided at the Project Site.
- The Project shall not provide any indoor fireplaces for residential units.
- The Project shall install outdoor power outlets to facilitate the use of electric landscaping equipment for maintaining common areas.

- The Project shall enroll in the organic waste recycling services provided by the solid waste collection service provider and ensure that compostable receptacles will be provided for the multi-family uses to reduce landfilled waste.

Project Impacts

Impact GHG-1: Would the proposed Project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Short-term Construction

Construction of the Project would result in temporary generation of GHG emissions related to off-road equipment use and on-road vehicle operations. As mentioned previously, GHG emissions are measured exclusively as cumulative impacts; therefore, the Project's construction emissions are considered part of total GHG emissions for the Project lifecycle, which also include GHG emissions during operations. In accordance with SCAQMD guidance, the Project's construction emissions are amortized over a 30-year period and the resulting annual emissions are combined with the Project's annual operational GHG emissions.

Table 3.3-1 below shows GHG emissions related to construction of the Project. As shown, construction of the Project is estimated to generate a total of 2,142 $MTCO_2e$ over the construction period. When amortized over a 30-year period, the Project's construction GHG emissions would be approximately 71 $MTCO_2e$ per year. Because construction emission sources would cease once construction is complete, construction emissions are considered short term.

Table 3.3-1: Estimated Short-term Construction Related GHG Emissions

Construction Years	Estimated GHG Emissions ($MTCO_2e$)[a]
2019	79
2020	842
2021	514
2022	508
2023	200
Total Construction Emissions	**2,142**
Annual Construction Emissions (Amortized over 30 years)	*71*

Source: Emissions modeling by ICF using CalEEMod version 2016.3.2 (Appendix A).
[a] Totals may not add up due to rounding.

Long-term Operation

Area and indirect sources of GHG emissions associated with the Project would primarily result from electricity and natural gas consumption, water transport (the energy used to deliver water to and from the Project Site), and solid waste generation. GHG emissions from electricity consumed on the Project Site would be generated off-site by fuel combustion at the electricity

provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source. In addition, the new residential and retail uses at the Project Site would also generate mobile source emissions from motor vehicle trips generated by residents and patrons.

The estimated operational GHG emissions resulting from the Project are shown in Table 3.3-2. Additionally, in accordance with SCAQMD's recommendation, the Project's amortized construction-related GHG emissions from Table 3.3-1 are added to the operational emissions estimate in order to determine the Project's total annual GHG emissions.

Table 3.3-2: Estimated Annual Greenhouse Gas Emissions from Project Operation in 2021 (metric tons per year)

Emission Source	Estimated Annual GHG Emissions ($MTCO_2e$ per year)
Area	12
Energy	1,430
Mobile[b]	777
Waste	41
Water/Wastewater	197
Total Annual Operational Emissions [a]	**2,457**
Amortized Construction	71
Total Annual Project Emissions [a]	**2,527**

Source: ICF Emissions Modeling (Appendix A).

[a] Totals may not add up due to rounding.

[b] As the Project is a transit priority project that qualifies for SB 375 CEQA streamlining, the mobile-related GHG emissions presented in this table exclude those generated from passenger cars and light-duty trucks pursuant.

As shown in Table 3.3-2, the Project's total annual GHG emissions would be approximately 2,527 $MTCO_2e$ per year.

As discussed in the Methodology section, above, the Project's compliance with regulatory programs is used to analyze the significance of its potential impacts with respect to GHG emissions dating from its post-2020 completion and operation. Under this threshold approach, the Project's GHG emissions are evaluated for consistency with each major emission sector (e.g., energy, water, waste, mobile, and stationary) addressed in the 2017 Scoping Plan to determine whether the Project's emissions would conflict with applicable sector-specific reduction targets and strategies identified in the 2017 Scoping Plan to meet the state's 2030 target under SB 32. The following sections present the sector-by-sector analysis of the Project's potential GHG impacts.

Area Emissions

As shown in Table 3.3-2, emissions associated with area sources would be approximately 12 $MTCO_2e$ per year. The Project's area sources include gasoline-powered landscaping equipment (e.g., trimmers, mowers) and the outdoor courtyard fireplaces. Area source emissions associated with landscaping equipment are based on CalEEMod's default assumptions, which estimates

equipment usage based on square footage of new building space. The landscaping at the Project Site would include trees, shrubs, and ground cover vegetation as opposed to grassed lawn areas, thereby minimizing the routine use of mowers and other landscaping equipment. Additionally, the Project's landscaped areas would be comprised of native and drought tolerant vegetation. This type of landscaping typically requires minimal pruning and maintenance, which also serves to minimize the use of fuel-powered landscaping equipment. The Scoping Plan does not include specific measures or 2030 emissions reduction requirements for landscaping equipment. While the inevitable transition away from fossil fuel equipment would be needed to achieve carbon neutrality by 2045, the Scoping Plan did not assume all electric landscaping equipment in their 2030 reduction analysis. Thus, because the use of trees and shrubs instead of grass lawn areas by the Project would reduce landscaping emissions relative to buildings that largely incorporate grass, the Project would be consistent with the Scoping Plan's overall goal of reducing emissions from fossil-fueled landscaping equipment.

Area source emissions associated with the Project's four outdoor courtyard fireplaces (i.e., two fireplaces and two fire pits), which would be natural gas fired, were accounted for in CalEEMod by selecting the use of natural gas fireplaces at four of the 432 total residential units proposed at the Project Site. For the purpose of conducting a conservative analysis, it was assumed that these outdoor fireplaces would be used 30 percent of the year. However, none of the 432 residential dwelling units would be equipped with indoor fireplaces under the Project. Because the Project would not supply the residential units with indoor fireplaces and would be limited to only four outdoor fireplaces, the fireplace emissions from the Project would be reduced relative to a residential building that supplies indoor fireplaces to its dwelling units. Thus, by not supplying indoor fireplaces for the residential units, the Project would be consistent with the Scoping Plan's goal of reducing GHG emissions associated with natural gas usage.

Energy Emissions

GHGs are emitted directly from buildings through the combustion of any type of fuel (e.g., natural gas for cooking). GHGs can also be emitted indirectly from the generation of electricity. The Scoping Plan outlines strategies to reduce energy demand and fossil fuel use, while increasing energy efficiency and renewable energy generation. These strategies include transitioning to cleaner fuels, greater efficiency in existing buildings, and electrification of end uses in commercial sectors. As shown in Table 3.3-2, the Project's building energy emissions would be approximately 1,430 $MTCO_2e$ per year.

OPR's 2018 *CEQA and Climate Change Advisory* recommends that a land use development project that "achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation." While OPR recommends new building do not consume fossil fuels, the 2017 Scoping Plan does not assume all electric buildings in their 2030 reduction analysis. Rather, the 2017 Scoping Plan assumes new gas appliances will be high efficiency.

The Project would install energy-efficient HVAC and lighting systems, Energy Star appliances, and meet Cal Green and Title 24 Building Standards Code requirements. The Project would also

include solar panels on 15 percent of the proposed mixed-use building's rooftop space. Though the Project would allow for natural gas appliances and heating, all units would meet high efficiency standards, consistent with the assumptions and emissions reduction requirements of the 2017 Scoping Plan for 2030. Thus, the Project would be consistent with the 2017 Scoping Plan's overall goal of reducing building energy emissions to meet the state's 2030 GHG reduction target.

Mobile Source Emissions

GHG emissions associated with on-road mobile sources are generated from residents, workers, and visitors, and delivery vehicles traveling to and from the Project Site. As noted previously, because the Project is a transit priority project that qualifies for CEQA streamlining under SB 375, no environmental analysis is required for the Project's GHG emissions from passenger cars and light-duty trucks. As shown in Table 3.3-2, emissions from mobile sources (excluding passenger cars and light-duty trucks) would be approximately 777 $MTCO_2e$ per year. It should be noted that these emissions are for the opening year (2023) of the Project, and that future annual emissions from mobile sources associated with the Project would continue to decline as the state's transportation sector transitions to zero-emission and lower-emission vehicles.

As discussed above, CARB acknowledges that reductions in VMT are required to meet the state's long-term climate change goals. The Project's urban infill location, with nearby access to public transportation in proximity to the Project Site, is consistent with state and local VMT reduction policies. The Project Site is in close proximity to multiple bus stops with high frequency transit service, including Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. Additionally, designated "Tier 2" bike lanes under the City's Mobility Plan 2035, which are bicycle lanes with striped separation on arterial roadways, are provided near the Project Site along Lankershim Boulevard north of Burbank Boulevard, along Laurel Canyon south of Strathern Street, and along Strathern Street west of Laurel Canyon, which would serve to reduce VMT. As a mixed-use development that is located within walking distance of businesses in the area and multiple transit options, the Project would also encourage pedestrian travel.

The Project would provide a total of 224 bicycle parking spaces at the Project Site, satisfying LAMC requirements to support bicycling by its residents and visitors. Thus, the Project's location, which is an urban infill site in a high-quality transit area (HQTA), as defined by SCAG, and a TPA, and mix of land uses would encourage the use of transit, walking and bicycling. As such the Project would reduce VMT from automobiles and minimize GHG emissions associated with mobile emissions. Furthermore, in accordance with the CALGreen code the Project would install pre-wiring for EV charging spaces for 20 percent of its total parking capacity for future use, with 5 percent of the parking spaces having chargers installed for immediate use by EVs. The provision of EV spaces at the Project Site would further reduce mobile GHG emissions. Overall, the Project would be consistent with the state's goal of reducing VMT.

Land Use Emissions

The existing landscaping on the Project Site is limited and consists of 35 non-native and non-protected trees. As part of the Project, these existing trees would be removed and replaced with 117 trees, including 15 street trees, for a net increase of 89 trees. Additionally, the Project Site would also plant other native and drought-tolerant vegetation such as shrubs and ground cover. The increase in trees and vegetation at the Project Site would increase carbon sequestration over existing conditions. While there are no relevant measures in the Scoping Plan or explicit regulatory requirements related to tree or vegetation planting, the Scoping Plan does discuss the importance of maintaining natural and working lands, which also encompasses green spaces in urban and built environments, to serve as a carbon sink. Additionally, the Scoping Plan notes that the creation and management of parks and other green space in urban areas, including expansion of the existing urban tree canopy, would help to reduce GHG emissions. Thus, the additional trees and native and drought-tolerant vegetation by the Project would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration.

Waste Emissions

Solid waste may be disposed in landfills or diverted for recycling, composting, or reuse. GHG emissions from landfills are generated through anaerobic breakdown of material. The Scoping Plan aims to reduce waste emissions by diverting waste away from landfills through waste reduction, re-use, composting, and material recovery. In addition, AB 341 requires mandatory recycling for certain commercial businesses, including a multi-family residential dwelling of five units or more.

As shown in Table 3.3-2, emissions associated with waste would be approximately 41 $MTCO_2e$ per year. As of February 1, 2018, a new waste and recycling system for all businesses and large apartment complexes in the City referred to as "recycLA" was implemented by the LA Sanitation, which is responsible in overseeing the collection and recycling of waste generated by residential, commercial and industrial uses in the City and surrounding communities. Under the recycLA program, the City is divided into 11 different service zones and waste collection contracts are awarded to seven different companies to collect trash at businesses, apartment buildings, and condos in those areas. Part of the services that recycLA will offer to businesses and large multi-family customers include blue bins for recycling and organics recycling. The implementation of this program aims to reduce landfill disposal by one million tons per year by 2025 and reduce waste by 65 percent in all 11 of the City's service zones, with the goal of achieving zero waste by 2050. Thus, upon its completion and operation in 2023, the Project would be served by this solid waste collection and recycling service, which is consistent with the Scoping Plan's overall goal of reducing waste emissions and its specific strategy to avoid landfill methane emissions by reducing the disposal of landfilled waste and organics through programs such as edible food recovery programs. In addition, these features would support and comply with AB 341's mandatory recycling requirement and support the state's recycling goal.

Water and Wastewater Emissions

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute

water depends on the volume of water as well as the sources of water. The Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation (e.g., SB X7-7) through building and landscaping efficiency (e.g., Title 24).

As shown in Table 3.3-2, the annual emissions associated with water use would be approximately 197 $MTCO_2e$ during the Project's opening year. The Project would incorporate water efficiency measures in compliance with the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code, which incorporates by reference the CALGreen Code. The Project's design would utilize low-flow plumbing fixtures that as a minimum comply with the flush volumes and gallons per minute water rates in the CALGreen Code and City requirements that decreases indoor water use. Outdoor water conservation measures include the installation of water-efficient irrigation systems and the planting of water-efficient landscaping consisting of native and drought-tolerant vegetation to minimize irrigation requirements. Thus, the indoor and outdoor water conservation measures of the Project serve to support ongoing regulatory programs (e.g., SB X7-7, Title 24) that aim to reduce GHG emissions associated with conveying water and distributing water to ultimately achieve climate neutrality.

Conclusion

As discussed above, the Project's sustainability measures are consistent with applicable polices from the 2017 Scoping Plan and regulatory programs for the area, energy, water, waste, and land use sectors. The Project's consistency with other statutes and policies related to GHG reduction efforts identified in the 2017 Scoping Plan are identified in AB 32, SB 32, and the 2017 Scoping Plan section under Impact GHG-2. The Project would also result in a net increase in trees at the Project Site along with other native and drought-tolerant vegetation over existing conditions, and therefore would be consistent with Scoping Plan's overall goal of avoiding losses in carbon sequestration. The location of the Project in an urban infill site in proximity to multiple transit options along with its mixed-use development of residential and commercial uses would also result in a reduction in VMT that is consistent with the Scoping Plan's long-term climate change goals. Overall, GHG emissions from construction and operation of the Project would have a less than significant impact on the environment.

Impact GHG-2: Would the proposed Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

SCAG 2016 RTP/SCS

The 2016 RTP/SCS is a long-range planning document that balances future mobility and housing needs with economic, environmental, and public health goals in the SCAG region. One of the key strategies of the plan is to integrate land use, housing, and transportation planning to ensure sustainable regional growth. Goals and policies included in the 2016 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development and encouraging active transportation (i.e., non-motorized transportation such as bicycling). SCAG's 2016 RTP/SCS complies with SB 375, which requires an SCS to be prepared as part of the RTP by

each MPO that outlines policies to reduce per capita GHG emissions from automobiles and light trucks. The SCS policies include a mix of strategies that encourage compact growth patterns, mixed-use design, alternative transportation, transit, mobility and access, network expansion, and transportation investment. Table 3.3-3 shows the Project's consistency with the 2016–2040 RTP/SCS goals and guiding policies.

Table 3.3-3: Consistency of Project with SCAG 2016–2040 RTP/SCS

Applicable Targets	Project Consistency Assessment
2016 RTP/SCS Goals	
1. Align the plan investments and policies with improving regional economic development and competitiveness.	**Not applicable.** SCAG and its member agencies are responsible for aligning RTP/SCS investments and polices with improving regional economic development and competitiveness. The Project would not conflict with this goal.
2. Maximize mobility and accessibility for all people and goods in the region.	**Consistent.** The Project would be near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project would include 224 bicycle parking spaces for the residential and commercial uses of the Project, in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating them on a site that would be within walking distance to businesses in the area and near multiple transit options.
3. Ensure travel safety and reliability for all people and goods in the region.	**Not applicable.** The Project would involve the construction and operation of a mixed-use development. Although people and goods would travel to and from the Project Site by personal vehicle, transit modes, biking, or walking, the Project would have negligible bearing on regional travel safety and reliability. The Project would not conflict with this goal, and would support its implementation by providing off-site street and right of way improvements as part of the development of the Project.
4. Preserve and ensure a sustainable regional transportation system.	**Consistent.** The Project is a mixed-use development that would be located near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. The Project would include 224 bicycle parking spaces for the residential and commercial uses of the Project, in accordance with LAMC requirements. The Project would encourage pedestrian travel by incorporating new residential and commercial uses in its mixed-use development and locating them on a site that would be within walking distance to businesses in the area and near

Applicable Targets	Project Consistency Assessment
	multiple transit options. The Project would also implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Strategies that would be implemented as part of the TDM program include educational programs, a transportation information center/kiosk, bicycle amenities, a contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements, promotion and support of carpools and rideshare, incentives for using alternative travel modes, and parking incentives and administrative support for formation of carpools/vanpools, and mobility hub support.
5. Maximize the productivity of our transportation system.	**Consistent.** The Project is a mixed-use development that would be located near multiple transportation routes, place housing near jobs and transit, and provide ample bicycle parking and pedestrian infrastructure to incentivize increased biking and walking. By placing housing near jobs and transit, the Project would be consistent with the tenets of smart growth that maximize the productivity of the transportation system.
6. Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	**Consistent.** The Project would locate a mixed-use development in a TPA that would be within walking distance to existing bus lines and a Metrolink station. The Project would also provide long-term and short-term bicycle parking, which would give people have more opportunities to bicycle, walk, and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that would be easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people because they would have greater opportunities for pedestrian and bicycling activity and reduce their reliance on automobiles.
7. Actively encourage and create incentives for energy efficiency, where possible.	**Consistent.** The Project would comply with the California Title 24 Building Standards Code and CALGreen Code. Energy savings and a sustainable design would be incorporated throughout the Project. The Project would emphasize energy conservation, which would be achieved through the use of energy-efficient HVAC and lighting systems. In addition, of the 20% of parking spaces that would be prewired for charging, 5% would have chargers installed for immediate use by EVs. The Project would include solar panels on 15% of the mixed-used building's rooftop.

Applicable Targets	Project Consistency Assessment
8. Encourage land use and growth patterns that facilitate transit and active transportation.	**Consistent.** The Project would involve construction and operation of a high-density, mixed-use development near bus and rail transit options; it would incentivize bicycle and pedestrian trips through the provision of supporting infrastructure.
9. Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	**Consistent.** TSM improvements, including signal controllers and CCTV, would be installed at key intersections in the Project vicinity, which would contribute to improved monitoring of the transportation system.
2016 RTP/SCS Guiding Policies	
1. Transportation investments shall be based on SCAG's adopted regional Performance Indicators.	**Not applicable.** SCAG and its member agencies are responsible for transportation investments and the use of performance indicators. The Project would not conflict with this policy.
2. Ensuring safety, adequate maintenance and efficiency of operations on the existing multimodal transportation system should be the highest RTP/ SCS priorities for any incremental funding in the region.	**Not applicable.** SCAG and its member agencies are responsible for the safety, maintenance, and operational efficiency of the transportation system. The Project would not conflict with this policy, and would support its implementation by providing off-site street and right of way improvements as part of the development of the Project.
3. RTP/SCS land use and growth strategies in the RTP/SCS will respect local input and advance smart growth initiatives.	**Consistent.** The Project would locate a mixed-use development in a TPA within walking distance of existing bus lines and a Metrolink station. The Project would also provide long-term and short-term bicycle parking which would help people have more opportunities to bicycle, walk and pursue other active alternatives to driving. The Project's location in an urban infill area would provide residents and visitors with shopping and dining options that are easily accessible on foot or by bicycle. The Project's design and location would help to improve air quality and the well-being of people as they would have greater opportunities for pedestrian and bicycling activity and to reduce their reliance on automobiles.
4. Transportation demand management (TDM) and active transportation will be focus areas, subject to Policy 1.	**Consistent.** The Project would involve the construction and operation of a high-density, mixed-use development near bus and rail transit options, and would also incentivize bicycle and pedestrian trips through the provision of supporting infrastructure. The Project would implement a TDM program to promote non-auto travel and reduce single-occupant vehicle trips, as identified in the TIS prepared for the proposed Project. Specific strategies that would be implemented as part of the TDM program are discussed above.

Applicable Targets	Project Consistency Assessment
5. HOV gap closures that significantly increase transit and rideshare usage will be supported and encouraged, subject to Policy 1.	**Not applicable.** The Project is unrelated to HOV gap closures. The Project would not conflict with this policy.
6. The RTP/SCS will support investments and strategies to reduce non-recurrent congestion and demand for single occupancy vehicle use, by leveraging advanced technologies.	**Not applicable.** SCAG and its member agencies are responsible for transportation investments and the use of advanced technologies to reduce congestion and demand for single occupancy vehicles. The Project would not conflict with this policy.
7. The RTP/SCS will encourage transportation investments that result in cleaner air, a better environment, a more efficient transportation system and sustainable outcomes in the long run.	**Not applicable.** SCAG and its member agencies are responsible for transportation investments that improve air quality, the environment, transportation efficiency, and sustainability. The Project would not conflict with this policy.
8. Monitoring progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies, will be an important and integral component of the Plan.	**Not applicable.** SCAG and its member agencies are responsible for monitor progress on all aspects of the RTP/SCS. The Project would not conflict with this policy.

Source: ICF, 2019.

Implementation of the SCS is intended to improve the efficiency of the transportation system and achieve a variety of land use types throughout the SCAG region that meet market demands in a balanced and sustainable manner. Some of the primary land use strategies discussed in the 2016 RTP/SCS include focusing new growth around transit (especially within the region's HQTAs), growth around "Livable Corridors," and providing more options for short trips,. The 2016 RTP/SCS identifies HQTAs as a cornerstone of land use planning best practice in the SCAG region, and assumes that 46 percent of new housing and 55 percent of new employment locations developed between 2012 and 2040 will be located within HQTAs. Focusing growth in HQTAs would provide households with expanded transportation choices other than vehicle driving, including walking, biking, use of public transit (e.g., buses, light rail, commuter rail, subway), and shared mobility options, as well as more direct and easier access to jobs, schools, shopping, healthcare, and entertainment. The Livable Corridor strategy discussed in the 2016 RTP/SCS refers to the use of integrated transportation and land use planning to revitalize commercial strips to increase economic activity and improve mobility options. This strategy includes promoting the development of mixed-use retail centers at key nodes along the corridors, increasing neighborhood-oriented retail at more intersections, and increasing zoning that allows for the replacement of under-performing auto-oriented strip retail between nodes with higher density residential and employment. Recognizing that 38 percent of all trips in the SCAG region are less than three miles, the 2016 RTP/SCS also includes land use strategies to encourage the use of alternative modes of transportation for short trips. One strategy to accomplish this is to shift retail growth from large centralized retail strip malls to smaller distributed centers throughout neighborhood mobility areas (NMAs), which are defined as neighborhood areas that have a high intersection density, low to moderate traffic speeds, and robust residential retail connections, to reduce distances residents would have to travel for retail goods. Another strategy involves the development of "Complete Communities," which are defined as mixed-use districts that have housing, employment, and a mix of retail and services located in close proximity to each other. These complete communities would allow for most daily needs of residents to be met

within a short distance, which in turn would encourage short trips made by walking and cycling as opposed to automobile travel. All of these land use strategies promoted in the 2016 RTP/SCS would reduce VMT and GHG emissions.

The Project would be consistent with the land use strategies of the 2016 RTP/SCS and the goals of SB 375, including the reduction of VMT and the corresponding mobile GHG emissions. As a transit priority project under SB 375 that is located in a HQTA, the Project locates a mixed-use development consisting of residential, retail, and restaurant uses near public transit, including frequent Metro bus lines and the Metrolink Sun Valley Station. The urban infill location of the Project Site is also surrounded by a diverse mixture of land uses including residential, office, commercial, industrial, school, and service uses. The diversity of land uses in proximity to the Project Site and the mix of uses associated with the Project would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation, which would result in corresponding reductions in mobile GHG emissions. Thus, implementation of the Project would help accommodate forecasted growth within the SCAG region while also supporting the reduction of per capital GHG emissions from passenger vehicles consistent with the 2016 RTP/SCS. The Project would also incorporate energy and water conservation features to meet the CALGreen Code. Overall, the Project would be consistent with the goals of SB 375 and 2016 RTP/SCS.

AB 32, SB 32, and 2017 Scoping Plan

AB 32 and SB 32 outline the state's GHG emissions reduction targets for 2020 and 2030, respectively. In 2008 and 2014, CARB adopted the Scoping Plan and First Update, respectively, as a framework for achieving AB 32. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures to reduce statewide GHG emissions. CARB adopted the 2017 Scoping Plan in November 2017 as a framework to achieve the 2030 GHG reduction goal described in SB 32. There is no state plan for addressing GHG reductions beyond 2030. As discussed previously, because the Project is expected to be in operation by 2023, the statewide GHG emissions reduction target for 2030 is the statutory statewide milestone target that is applicable to the Project.

Based on CARB's 2017 Scoping Plan, many of the reductions needed to meet the 2030 target will come from state regulations, including cap-and-trade, the requirement for increased renewable energy sources in California's energy supply, updates to Title 24, and increased emission reduction requirements for mobile sources. The 2017 Scoping Plan indicates that reductions would need to come in the form of changes pertaining to vehicle emissions and mileage standards, changes pertaining to sources of electricity and increased energy efficiency at existing facilities, and state and local plans, policies, or regulations that will lower GHG emissions relative to business-as-usual conditions. The 2017 Scoping Plan carries forward GHG reduction measures from the First Update, as well as new potential measures to help achieve the state's 2030 target across all sectors of the California economy, including transportation, energy, and industry.

As discussed above under Impact GHG-1, the Project would be consistent with the applicable polices from the 2017 Scoping Plan and regulatory programs for the area, energy, water, waste, and land use sectors. The Project would be designed to meet the CALGreen Code, and would emphasize energy and water conservation through the use of energy efficient HVAC and lighting

systems, energy star appliances, and low flow plumbing fixtures. Solar panels would be installed on 15 percent of the Project's rooftop space and 20 percent of the provided parking spaces would be prewired for EV charging, with 5 percent of the parking spaces having chargers installed for immediate use by EVs. The Project would be consistent with the Scoping Plan's overall goal of avoiding losses in carbon sequestration by planting a net increase of 89 trees at the Project Site over existing conditions along with other native and drought-tolerant vegetation. By locating its mixed-use residential, restaurant, and retail commercial development on a Project Site that is located within a HQTA and TPA near frequent bus lines, the Metrolink Sun Valley Station, bike lanes, and a pedestrian network, the Project would reduce VMT by encouraging the use of transit, walking, and bicycling as compared to similar stand-alone residential uses that are not located in close proximity to transit. Thus, the GHG emission reductions resulting from the Project's features, design, and location would be consistent with the goals of the 2017 Scoping Plan and would assist the state with meeting its GHG reduction goals. Table 3.3-4 shows the Project's consistency with statutes and programs identified in the state's 2017 Scoping Plan that aim to reduce GHG emissions.

Table 3.3-4: Consistency of Project with 2017 Scoping Plan

Applicable Policies and Objectives	Project Consistency Assessment
SB 350: Reduce GHG emissions in the electricity sector through the implementation of the 50 percent RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, as part of the Project's sustainability goals identified in PDF-GHG-1, the Project would install energy-efficient appliances, low-flow plumbing fixtures, and solar panels on 15% of the rooftop space, all of which would reduce emissions in the energy sector.
Low-Carbon Fuel Standard: Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, the Project would reduce mobile-source GHG emissions by including short- and long-term bike parking, prewiring 20% of the total parking spaces for EV charging, and providing EV chargers at 5% of the total parking spaces.
Mobile Source Strategy (Cleaner Technology and Fuels [CTF] Scenario): Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.	**Consistent.** This policy is a state program that requires no action at the local or project level. Nonetheless, the Project would reduce mobile-source GHG emissions by including short- and long-term bike parking, prewiring 20% of the total parking spaces for EV charging, and providing EV chargers at 5% of the total parking spaces.
SB 1383: Approve and Implement Short-Lived Climate Pollutant strategy to reduce highly potent GHGs.	**Not applicable.** This policy is a state program that requires no action at the local or project level and is not applicable to the proposed Project. The Project would not conflict with this statute.
California Sustainable Freight Action Plan: Improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.	**Not applicable.** This policy is a state program that requires no action at the local or project level and is not applicable to the proposed Project. The Project would not conflict with this plan.

Applicable Policies and Objectives	Project Consistency Assessment
Post-2020 Cap-and-Trade Program: Reduce GHGs across largest GHG emissions sources.	**Not applicable.** This policy is a state program that requires no action at the local or project level. The Project would not conflict with this program.

Source: ICF, 2019.

City of Los Angeles – Sustainable City pLAn

The 2019 Los Angeles' Green New Deal is the first four-year update to the City's 2015 pLAn and expands in more detail the vision to achieve a sustainable future that entails a carbon-neutral economy by 2050. This updated plan accelerates targets from the 2015 pLAn for supplying renewable energy, increasing local water sourcing, reducing building energy, reducing VMT per capita, reducing municipal GHG emissions, increasing the percentage of zero emission passenger and City-fleet vehicles, building new housing near transit, and increasing the number of green jobs. Of the issue areas that are addressed in separate chapters in the 2019 updates to the pLAn, those that are relevant for the Project include: Renewable Energy, Local Water, Clean & Health Buildings, Housing & Development, Mobility & Public Transit, Zero Emission Vehicles, Water & Resource Recovery, and Urban Ecosystems & Resilience. The relevant targets established for each of these issue areas that are applicable to the Project are shown in Table 3.3-3. The Project-level analysis describes the consistency of the Project with these targets.

Table 3.3-5: Consistency of Project with Sustainable City pLAn (2019 Update)

Applicable Targets	Project Consistency Assessment
Renewable Energy	
• LADWP will supply 55% renewable energy by 2025; 80% by 2036; and 100% by 2045 • Increase cumulative MW by 2025; 2035; and 2050 of: o Local solar to 900-1,500 MW; 1,500-1,800 MW; and 1,950 MW o Energy storage capacity to 1,654-1,750 MW; 3,000 MW; and 4,000 MW o Demand response (DR) programs to 234 MW (2025) and 600 MW (2035)	**Consistent.** Although this reduction target is applicable to the City's renewable energy programs, the Project would support this target by including solar panels on 15% of the rooftop space of the mixed-use building.
Local Water	
• Reduce potable water use per capita by 22.5% by 2025; and 25% by 2035; and maintain or reduce 2035 per capita water use through 2050	**Consistent.** The Project would comply with the applicable requirements of the California Green Building Standards Code and the City of Los Angeles Green Building Code and incorporate water efficiency measures. The Project's design would utilize low-flow plumbing fixtures that as a minimum comply with the flush volumes and gallons per minute water rates in the CALGreen Code and City requirements to reduce indoor water use. The Project also incorporates outdoor water conservation measures including the installation of water-efficient irrigation systems and the planting

Applicable Targets	Project Consistency Assessment
	of water-efficient landscaping consisting of native and drought-tolerant vegetation to minimize irrigation requirements.
Clean & Healthy Buildings	
• Reduce building energy use per sq. ft. for all building types 22% by 2025; 34% by 2035; and 44% by 2050	**Consistent.** The Project would install energy efficient HVAC and lighting systems, Energy Star appliances, and meet Cal Green and Title 24 Building Standards Code requirements. The Project would also include solar panels on 15% of the proposed mixed-use building's rooftop space. Though the Project would allow for natural gas appliances and heating, all units would meet high efficiency standards.

Applicable Targets	Project Consistency Assessment
Housing & Development	
• Ensure 57% of new housing units are built within 1,500 ft. of transit by 2025; and 75% by 2035 • Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters	**Consistent.** The Project is located in an urban infill location that is in proximity of public transportation, including multiple bus stops with high frequency transit service such as the Metro Bus lines 224 and 353/152 that run along Lankershim Boulevard. Other transit bus service located within one mile of the Project Site is provided along Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. The Project is also 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels to and from downtown Los Angeles, with a final destination in the City of Lancaster. The Project also sets aside 11 percent of its total residential units (48 affordable units) for Extremely Low or Very Low Income Households.
Mobility & Public Transit	
• Increase the percentage of all trips made by walking, biking, micro-mobility / matched rides or transit to at least 35% by 2025; 50% by 2035; and maintain at least 50% by 2050 • Reduce VMT per capita by at least 13% by 2025; 39% by 2035; and 45% by 2050	**Consistent.** By locating its mixed-use residential, restaurant, and retail commercial development on a Project Site that is located within a HQTA and TPA near frequent bus lines, the Metrolink Sun Valley Station, bike lanes, and a pedestrian network, the Project would reduce VMT by encouraging the use of transit, walking, and bicycling as compared to similar stand-alone residential uses that are not located in close proximity to transit. Additionally, the urban infill location of the Project Site is also surrounded by a diverse mixture of land uses including residential, office, commercial, industrial, school, and service uses. The diversity of land uses in proximity to the Project Site and the mix of uses associated with the Project would reduce vehicle trips and VMT by encouraging walking and non-automotive forms of transportation.
Zero Emission Vehicles	
• Increase the percentage of electric and zero emission vehicles in the city to 25% by 2025; 80% by 2035; and 100% by 2050	**Consistent.** By providing prewiring for EV parking for 20 percent of its total parking spaces, with 5 percent of the parking spaces having chargers installed for immediate use by EVs, the Project supports this reduction target by the City.

Applicable Targets	Project Consistency Assessment
Waste & Resource Recovery	
• Increase landfill diversion rate to 90% by 2025; 95% by 2035; and 100% by 2050 • Eliminate organic waste going to landfill by 2028 • Increase proportion of waste products and recyclables productively reused and/or repurposed within L.A. County to at least 25% by 2025; and 50% by 2035	**Consistent.** The Project would be served by a solid waste collection and recycling service under the recycLA program that was recently implemented on February 1, 2018. Part of the services that recycLA will offer to businesses and large multi-family customers include blue bins for recycling and organics recycling. The implementation of this program is aimed to achieve the City's zero waste goal by 2050.
Urban Ecosystem & Resilience	
• Increase tree canopy in areas of greatest need by at least 50% by 2028	**Consistent.** The existing Project Site currently has 35 non-native and non-protected trees, with no street trees. As part of the Project, these existing 35 trees would be removed and replaced with a total 117 trees, resulting in a net increase of 89 trees. Of the 115 trees that would be planted, 15 would be street trees. As such, the Project would support the City's reduction target associated with increase the City's tree canopy.

Source: ICF, 2019.

As described in Table 3.3-3, the Project would be consistent with and support the applicable City targets of the 2019 updates to the pLAn for achieving a carbon neutral economy by 2050.

City of Los Angeles Green Building Code

The Project would be consistent with the Los Angeles Green Building Code, which would reduce GHG emissions by complying with Title 24 Building Energy Efficiency Standards, as amended by the City, and installing Energy Star appliances. The Project would reduce indoor water use through the installation of low-flow plumbing fixtures that, at a minimum, comply with the flush volumes and gallons-per-minute water rates in the CALGreen Code and City requirements to decrease indoor water use. Outdoor water conservation measures include the installation of water-efficient irrigation systems and the planting of water-efficient landscaping, consisting of native and drought-tolerant vegetation, to minimize irrigation requirements. The HVAC system would also be designed in compliance with the CALGreen Code to maximize energy efficiency with respect to heat loss and heat gain. Each of these Project elements would help minimize GHG emissions, and the Project would be consistent with the Los Angeles Green Building Code.

Conclusion

In summary, the GHG emission reductions resulting from the Project's features, design, and location would be consistent with the goals of the 2017 Scoping Plan, SB 375, the 2016 RTP/SCS, and Los Angeles' Sustainable City pLAn and Green Building Code. Accordingly, impacts related to conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would be less than significant.

Chapter 4
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Appendix A: Compiled Emissons Summary and CalEEMod Outputs

7940 Lankershim Boulevard
Compiled Emissions

CONSTRUCTION

Daily - Without PDFs

Phase		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
	On-Site	3.31	34.00	18.87	0.04	0.76	1.67	2.43	0.11	1.55	1.67
Demolition (2019)	Off-Site	0.15	2.57	1.13	0.01	0.28	0.01	0.29	0.07	0.01	0.09
	Total	3.46	36.57	20.00	0.04	1.03	1.69	2.72	0.19	1.56	1.75
	On-Site	2.05	23.13	11.79	0.03	1.59	0.96	2.55	0.69	0.88	1.57
Site Preparation (2020)	Off-Site	0.41	11.46	3.16	0.03	0.80	0.04	0.84	0.22	0.04	0.26
	Total	2.46	34.59	14.95	0.06	2.39	1.00	3.38	0.91	0.92	1.83
	On-Site	2.81	30.01	16.49	0.04	2.76	1.31	4.06	1.34	1.20	2.54
Grading (2020)	Off-Site	2.76	86.91	21.09	0.24	5.37	0.29	5.66	1.48	0.28	1.75
	Total	5.57	116.91	37.58	0.27	8.13	1.60	9.72	2.82	1.48	4.29
	On-Site	1.33	12.26	9.38	0.02	0.00	0.64	0.64	0.00	0.61	0.61
Building Construction (2020)	Off-Site	0.55	4.12	4.57	0.02	2.01	0.02	2.03	0.52	0.02	0.54
	Total	1.88	16.38	13.95	0.04	2.01	0.66	2.67	0.52	0.63	1.14
	On-Site	1.19	11.14	9.17	0.02	0.00	0.55	0.55	0.00	0.52	0.52
Building Construction (2021)	Off-Site	0.52	3.83	4.25	0.02	1.47	0.02	1.49	0.39	0.02	0.40
	Total	1.71	14.96	13.43	0.04	1.47	0.57	2.04	0.39	0.54	0.93
	On-Site	1.08	9.94	9.02	0.02	0.00	0.47	0.47	0.00	0.45	0.45
Building Construction (2022)	Off-Site	0.49	3.55	3.98	0.02	1.47	0.02	1.49	0.39	0.02	0.40
	Total	1.57	13.50	13.00	0.04	1.47	0.49	1.96	0.39	0.46	0.85
	On-Site	1.00	9.17	8.93	0.02	0.00	0.42	0.42	0.00	0.39	0.39
Building Construction (2023)	Off-Site	0.43	2.42	3.66	0.02	2.21	0.01	2.22	0.57	0.01	0.58
	Total	1.43	11.60	12.59	0.04	2.21	0.43	2.64	0.57	0.41	0.97
Paving (2023)	On-Site	0.63	6.12	8.56	0.01	0.00	0.30	0.30	0.00	0.28	0.28
	Off-Site	0.06	0.43	0.48	0.00	0.15	0.00	0.15	0.04	0.00	0.04
Architectural Coatings (2023)	On-Site	159.44	1.74	2.41	0.00	0.00	0.09	0.09	0.00	0.09	0.09
	Off-Site	0.03	0.25	0.25	0.00	0.08	0.00	0.08	0.02	0.00	0.02
	Total	160.15	8.54	11.70	0.02	0.23	0.40	0.63	0.06	0.38	0.44
Maximum Daily Regional Emissions		**160.15**	**116.91**	**37.58**	**0.27**	**8.13**	**1.69**	**9.72**	**2.82**	**1.56**	**4.29**
Regional Significance Threshold		75	100	550	150			150			55
Exceeds Regional Threshold?		**Yes**	**Yes**	No	No			No			No
Maximum On-Site		160.07	34.35	18.93	0.05			4.35			2.63
Localized Significance Threshold (SRA 7, 5-acre, 25-m receptor distance)		N/A	164.3	1347.6	N/A			13.1			7.4
Exceeds LST?		N/A	No	No	N/A			No			No

Daily - With PDFs

Phase		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
	On-Site	0.42	1.84	19.88	0.04	0.76	0.06	0.81	0.11	0.06	0.17
Demolition (2019)	Off-Site	0.15	2.57	1.13	0.01	0.28	0.01	0.29	0.07	0.01	0.09
	Total	0.57	4.40	21.01	0.04	1.03	0.07	1.10	0.19	0.07	0.26
	On-Site	0.35	1.50	13.62	0.03	1.59	0.05	1.63	0.69	0.05	0.74
Site Preparation (2020)	Off-Site	0.41	11.46	3.16	0.03	0.80	0.04	0.84	0.22	0.04	0.26
	Total	0.76	12.95	16.77	0.06	2.39	0.09	2.47	0.91	0.08	0.99
	On-Site	0.47	2.04	18.97	0.04	2.76	0.06	2.82	1.34	0.06	1.40
Grading (2020)	Off-Site	2.76	86.91	21.09	0.24	5.37	0.29	5.66	1.48	0.28	1.75
	Total	3.23	88.94	40.05	0.27	8.13	0.35	8.48	2.82	0.34	3.15
	On-Site	0.21	1.50	9.98	0.02	0.00	0.03	0.03	0.00	0.03	0.03
Building Construction (2020)	Off-Site	0.55	4.12	4.57	0.02	2.01	0.02	2.03	0.52	0.02	0.54
	Total	0.76	5.62	14.55	0.04	2.01	0.05	2.06	0.52	0.04	0.56
	On-Site	0.21	1.50	9.98	0.02	0.00	0.03	0.03	0.00	0.03	0.03
Building Construction (2021)	Off-Site	0.52	3.83	4.25	0.02	1.47	0.02	1.49	0.39	0.02	0.40
	Total	0.72	5.33	14.23	0.04	1.47	0.04	1.51	0.39	0.04	0.43
	On-Site	0.21	1.50	9.98	0.02	0.00	0.03	0.03	0.00	0.03	0.03
Building Construction (2022)	Off-Site	0.49	3.55	3.98	0.02	1.47	0.02	1.49	0.39	0.02	0.40
	Total	0.69	5.05	13.96	0.04	1.47	0.04	1.51	0.39	0.04	0.43
	On-Site	0.21	1.50	9.98	0.02	0.00	0.03	0.03	0.00	0.03	0.03
Building Construction (2023)	Off-Site	0.43	2.42	3.66	0.02	2.21	0.01	2.22	0.57	0.01	0.58
	Total	0.63	3.92	13.63	0.04	2.21	0.04	2.25	0.57	0.04	0.60
Paving (2023)	On-Site	0.20	0.95	9.86	0.01	0.00	0.03	0.03	0.00	0.03	0.03
	Off-Site	0.06	0.43	0.48	0.00	0.15	0.00	0.15	0.04	0.00	0.04
Architectural Coatings (2023)	On-Site	34.55	0.17	2.44	0.00	0.00	0.01	0.01	0.00	0.01	0.01
	Off-Site	0.03	0.25	0.25	0.00	0.08	0.00	0.08	0.02	0.00	0.02
	Total	34.83	1.80	13.03	0.02	0.23	0.04	0.27	0.06	0.04	0.10
Maximum Daily Regional Emissions		**34.83**	**88.94**	**40.05**	**0.27**	**8.13**	**0.35**	**8.48**	**2.82**	**0.34**	**3.15**
Regional Significance Threshold		75	100	550	150			150			55
Exceeds Regional Threshold?		No	No	No	No			No			No
Maximum On-Site		34.76	6.38	20.02	0.05			3.10			1.49
Localized Significance Threshold (SRA 7, 5-acre, 25-m receptor distance)		N/A	164.3	1347.6	N/A			13.1			7.4
Exceeds LST?		N/A	No	No	N/A			No			No

Annual

Year	CO2e (MT/Yr)
2019	78.63
2020	841.58
2021	514.16
2022	507.77
2023	200.19
Total	2142.33

71.4 MT (amortized over 30 years)

OPERATION

Daily - without PDFs

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
	Area	10.9	0.5	35.7	0.00	0.0	0.2	0.2	0.0	0.2	0.2
	Energy	0.2	1.7	0.9	0.01	0.0	0.1	0.1	0.0	0.1	0.1
	Mobile	5.2	21.3	63.4	0.23	19.4	0.2	19.5	5.2	0.2	5.3
Maximum Daily Regional Emissions	Total	16.3	23.5	100.1	0.2	19.4	0.5	19.9	5.2	0.5	5.7
Regional Significance Threshold		55	55	550	150			150			55
Exceeds Regional Threshold?		No	No	No	No			No			No
Maximum On-Site		11.4	3.2	39.8	0.0	1.0	0.3	1.3	0.3	0.3	0.6
Localized Significance Threshold (SRA 7, 5-acre, 25-m receptor distance)		N/A	164.3	1347.6	N/A			3.7			1.8
Exceeds LST?		N/A	No	No	N/A			No			No

Daily - with PDFs

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	Total PM10	Fugitive PM2.5	Exhaust PM2.5	Total PM2.5
	Area	10.9	0.5	35.7	0.0	0.0	0.2	0.2	0.0	0.2	0.2
	Energy	0.2	1.7	0.9	0.0	0.0	0.1	0.1	0.0	0.1	0.1
	Mobile	5.2	21.3	63.4	0.2	19.4	0.2	19.5	5.2	0.2	5.3
Maximum Daily Regional Emissions	Total	16.3	23.5	100.1	0.2	19.4	0.5	19.9	5.2	0.5	5.7
Regional Significance Threshold		55	55	550	150			150			55
Exceeds Regional Threshold?		No	No	No	No			No			No
Maximum On-Site		11.4	3.2	39.8	0.0	1.0	0.3	1.3	0.3	0.3	0.6
Localized Significance Threshold (SRA 7, 5-acre, 25-m receptor distance)		N/A	164.3	1347.6	N/A			3.7			1.8
Exceeds LST?		N/A	No	No	N/A			No			No

Annual

	CO2e (MT/Yr)	
Area	12	
Energy	1430	
Mobile	777	(*Emissions from passenger cars and light-duty trucks excluded)
Waste	41	
Water	197	
Const. (amortized)	71	
Total	**2527**	Total (with amortized construction emissions)

7940 Lankershim Boulevard - without PDFs

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	14.00	1000sqft	0.00	14,000.00	0
Enclosed Parking with Elevator	541.00	Space	0.00	216,400.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.00	8,000.00	0
Apartments Mid Rise	432.00	Dwelling Unit	4.69	432,000.00	1236

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	669	**CH4 Intensity (lb/MWhr)**	0.026	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Accounts for RPS for LADWP

Land Use - 4.69-acre site; 541 parking spaces associated with proposed project parking structure

Construction Phase - Construction to occur 6 days/week

Off-road Equipment - Architectural coating equip

Off-road Equipment - Building equip

Off-road Equipment - Demolition equip

Off-road Equipment - Grading equip

Off-road Equipment - Paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Anticipated construction vehicle trips

Demolition - Based on 7 daily haul truck trips over 40 days, and assuming building debris density is 1,620 lbs/cyd

Grading - 89,000 cy of soil export

Architectural Coating - construction coatings

Vehicle Trips - Accounts for less trips from walk-in/transit reduction, internal apture, and pass-by reductions

Woodstoves - Accounts for outdoor courtyard fireplaces (2) and firepits (2); Assumes these outdoor amenites would be used 30% of the year.

Area Coating - Coatings

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Energy Mitigation - Use of Energy Star appliances

Water Mitigation - CALGreen

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	40.00
tblApplianceMitigation	PercentImprovement	15.00	9.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstructionPhase	NumDays	230.00	886.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	8.00	40.00
tblConstructionPhase	NumDays	18.00	12.00
tblConstructionPhase	NumDays	5.00	28.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	110.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	367.20	4.00
tblFireplaces	NumberNoFireplace	43.20	428.00
tblFireplaces	NumberWood	21.60	0.00
tblGrading	MaterialExported	0.00	89,000.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	4.87	0.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	11.37	4.69
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	1227.89	669
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	359.00	280.00
tblTripsAndVMT	HaulingTripNumber	0.00	924.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,632.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00

tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	55.00
tblTripsAndVMT	VendorTripNumber	85.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	410.00	85.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	82.00	5.00
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	158.37	76.75
tblVehicleTrips	ST_TR	96.91	56.00
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	131.84	76.75
tblVehicleTrips	SU_TR	96.91	56.00
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	127.15	76.75
tblVehicleTrips	WD_TR	96.91	56.00
tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2019	3.4528	36.5366	19.9983	0.0432	2.2177	1.6848	3.9025	0.3687	1.5642	1.9328	0.0000	4,318.8972	4,318.8972	1.0452	0.0000	4,345.0262
2020	5.4984	115.8738	36.3588	0.2739	12.4406	1.5913	14.0319	4.9101	1.4744	6.3844	0.0000	29,202.7731	29,202.7731	2.9188	0.0000	29,275.7423
2021	1.6658	14.8964	13.4261	0.0367	1.4696	0.5710	2.0406	0.3863	0.5402	0.9265	0.0000	3,659.7003	3,659.7003	0.4604	0.0000	3,671.2090
2022	1.5230	13.4379	13.0022	0.0363	1.4696	0.4909	1.9605	0.3863	0.4646	0.8509	0.0000	3,613.3498	3,613.3498	0.4533	0.0000	3,624.6812
2023	160.1456	11.5606	12.5906	0.0355	2.2118	0.4282	2.6400	0.5685	0.4051	0.9736	0.0000	3,535.0628	3,535.0628	0.4473	0.0000	3,546.1203
Maximum	**160.1456**	**115.8738**	**36.3588**	**0.2739**	**12.4406**	**1.6848**	**14.0319**	**4.9101**	**1.5642**	**6.3844**	**0.0000**	**29,202.7731**	**29,202.7731**	**2.9188**	**0.0000**	**29,275.7423**

2.1 Overall Construction (Maximum Daily Emission)

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					
2019	3.4528	36.5366	19.9983	0.0432	1.0331	1.6848	2.7179	0.1893	1.5642	1.7535	0.0000	4,318.8972	4,318.8972	1.0452	0.0000	4,345.0262
2020	5.4984	115.8738	36.3588	0.2739	8.1284	1.5913	9.7197	2.8152	1.4744	4.2896	0.0000	29,202.7731	29,202.7731	2.9188	0.0000	29,275.7423
2021	1.6658	14.8964	13.4261	0.0367	1.4696	0.5710	2.0406	0.3863	0.5402	0.9265	0.0000	3,659.7003	3,659.7003	0.4604	0.0000	3,671.2090
2022	1.5230	13.4379	13.0022	0.0363	1.4696	0.4909	1.9605	0.3863	0.4646	0.8509	0.0000	3,613.3498	3,613.3498	0.4533	0.0000	3,624.6812
2023	160.1456	11.5606	12.5906	0.0355	2.2118	0.4282	2.6400	0.5685	0.4051	0.9736	0.0000	3,535.0628	3,535.0628	0.4473	0.0000	3,546.1203
Maximum	**160.1456**	**115.8738**	**36.3588**	**0.2739**	**8.1284**	**1.6848**	**9.7197**	**2.8152**	**1.5642**	**4.2896**	**0.0000**	**29,202.7731**	**29,202.7731**	**2.9188**	**0.0000**	**29,275.7423**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**27.75**	**0.00**	**22.37**	**34.35**	**0.00**	**20.55**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309
Total	**16.2989**	**23.0729**	**100.0628**	**0.2471**	**19.3757**	**0.5106**	**19.8863**	**5.1851**	**0.4985**	**5.6835**	**0.0000**	**26,139.4703**	**26,139.4703**	**1.2655**	**0.0406**	**26,183.2127**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309
Total	**16.2989**	**23.0729**	**100.0628**	**0.2471**	**19.3757**	**0.5106**	**19.8863**	**5.1851**	**0.4985**	**5.6835**	**0.0000**	**26,139.4703**	**26,139.4703**	**1.2655**	**0.0406**	**26,183.2127**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10/1/2019	11/15/2019	6	40	
2	Site Preparation	Site Preparation	5/1/2020	6/2/2020	6	28	
3	Grading	Grading	6/3/2020	7/18/2020	6	40	
4	Building Construction	Building Construction	7/19/2020	5/18/2023	6	886	
5	Paving	Paving	5/19/2023	6/1/2023	6	12	
6	Architectural Coating	Architectural Coating	5/19/2023	6/8/2023	6	18	

Acres of Grading (Site Preparation Phase): 28

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 874,800; Residential Outdoor: 291,600; Non-Residential Indoor: 33,000; Non-Residential Outdoor: 11,000; Striped Parking Area: 12,984 (Architectural Coating – sqft)

OffRoad Equipment

7940 Lankershim Boulevard - without PDFs - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Off-Highway Trucks	1	2.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Scrapers	1	4.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	2	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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	6	12.00	3.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	10.00	17.00	924.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	14.00	55.00	11,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	85.00	3.00	10,632.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	1.00	24.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	1.00	18.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					1.9420	0.0000	1.9420	0.2940	0.0000	0.2940			0.0000			0.0000
Off-Road	3.3146	34.0014	18.8705	0.0354		1.6736	1.6736		1.5535	1.5535		3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**3.3146**	**34.0014**	**18.8705**	**0.0354**	**1.9420**	**1.6736**	**3.6155**	**0.2940**	**1.5535**	**1.8475**		**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0658	2.1440	0.4571	5.5900e-003	0.1224	7.8700e-003	0.1303	0.0336	7.5300e-003	0.0411		605.1582	605.1582	0.0417		606.2001
Vendor	0.0125	0.3472	0.0921	7.8000e-004	0.0192	2.2100e-003	0.0214	5.5300e-003	2.1200e-003	7.6500e-003		83.6444	83.6444	5.3600e-003		83.7784
Worker	0.0600	0.0441	0.5786	1.4600e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		145.5544	145.5544	5.0000e-003		145.6793
Total	**0.1382**	**2.5352**	**1.1278**	**7.8300e-003**	**0.2757**	**0.0112**	**0.2870**	**0.0747**	**0.0107**	**0.0854**		**834.3570**	**834.3570**	**0.0520**		**835.6579**

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					0.7574	0.0000	0.7574	0.1147	0.0000	0.1147			0.0000			0.0000
Off-Road	3.3146	34.0014	18.8705	0.0354		1.6736	1.6736		1.5535	1.5535	0.0000	3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**3.3146**	**34.0014**	**18.8705**	**0.0354**	**0.7574**	**1.6736**	**2.4309**	**0.1147**	**1.5535**	**1.6681**	**0.0000**	**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0658	2.1440	0.4571	5.5900e-003	0.1224	7.8700e-003	0.1303	0.0336	7.5300e-003	0.0411		605.1582	605.1582	0.0417		606.2001
Vendor	0.0125	0.3472	0.0921	7.8000e-004	0.0192	2.2100e-003	0.0214	5.5300e-003	2.1200e-003	7.6500e-003		83.6444	83.6444	5.3600e-003		83.7784
Worker	0.0600	0.0441	0.5786	1.4600e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		145.5544	145.5544	5.0000e-003		145.6793
Total	**0.1382**	**2.5352**	**1.1278**	**7.8300e-003**	**0.2757**	**0.0112**	**0.2870**	**0.0747**	**0.0107**	**0.0854**		**834.3570**	**834.3570**	**0.0520**		**835.6579**

3.3 Site Preparation - 2020

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					4.0715	0.0000	4.0715	1.7696	0.0000	1.7696			0.0000			0.0000
Off-Road	2.0531	23.1342	11.7943	0.0282		0.9572	0.9572		0.8806	0.8806		2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**2.0531**	**23.1342**	**11.7943**	**0.0282**	**4.0715**	**0.9572**	**5.0287**	**1.7696**	**0.8806**	**2.6502**		**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2883	9.4888	2.1026	0.0261	0.5770	0.0303	0.6073	0.1582	0.0290	0.1871		2,824.2450	2,824.2450	0.1922		2,829.0509
Vendor	0.0605	1.8083	0.4738	4.4100e-003	0.1088	8.5100e-003	0.1174	0.0313	8.1400e-003	0.0395		470.9420	470.9420	0.0287		471.6604
Worker	0.0460	0.0327	0.4378	1.1800e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		117.6113	117.6113	3.7100e-003		117.7040
Total	**0.3947**	**11.3299**	**3.0143**	**0.0317**	**0.7976**	**0.0397**	**0.8373**	**0.2191**	**0.0380**	**0.2571**		**3,412.7983**	**3,412.7983**	**0.2247**		**3,418.4153**

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					1.5879	0.0000	1.5879	0.6902	0.0000	0.6902			0.0000			0.0000
Off-Road	2.0531	23.1342	11.7943	0.0282		0.9572	0.9572		0.8806	0.8806	0.0000	2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**2.0531**	**23.1342**	**11.7943**	**0.0282**	**1.5879**	**0.9572**	**2.5451**	**0.6902**	**0.8806**	**1.5708**	**0.0000**	**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2883	9.4888	2.1026	0.0261	0.5770	0.0303	0.6073	0.1582	0.0290	0.1871		2,824.2450	2,824.2450	0.1922		2,829.0509
Vendor	0.0605	1.8083	0.4738	4.4100e-003	0.1088	8.5100e-003	0.1174	0.0313	8.1400e-003	0.0395		470.9420	470.9420	0.0287		471.6604
Worker	0.0460	0.0327	0.4378	1.1800e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		117.6113	117.6113	3.7100e-003		117.7040
Total	**0.3947**	**11.3299**	**3.0143**	**0.0317**	**0.7976**	**0.0397**	**0.8373**	**0.2191**	**0.0380**	**0.2571**		**3,412.7983**	**3,412.7983**	**0.2247**		**3,418.4153**

3.4 Grading - 2020

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					7.0691	0.0000	7.0691	3.4342	0.0000	3.4342			0.0000			0.0000
Off-Road	2.8090	30.0053	16.4918	0.0383		1.3072	1.3072		1.2026	1.2026		3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**2.8090**	**30.0053**	**16.4918**	**0.0383**	**7.0691**	**1.3072**	**8.3763**	**3.4342**	**1.2026**	**4.6368**		**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4294	79.9723	17.7211	0.2197	4.8629	0.2552	5.1181	1.3330	0.2442	1.5772		23,802.8224	23,802.8224	1.6202		23,843.3267
Vendor	0.1956	5.8505	1.5329	0.0143	0.3521	0.0275	0.3797	0.1014	0.0263	0.1277		1,523.6358	1,523.6358	0.0930		1,525.9603
Worker	0.0644	0.0458	0.6130	1.6500e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		164.6558	164.6558	5.1900e-003		164.7856
Total	**2.6895**	**85.8686**	**19.8670**	**0.2356**	**5.3715**	**0.2841**	**5.6556**	**1.4759**	**0.2717**	**1.7476**		**25,491.1140**	**25,491.1140**	**1.7183**		**25,534.0725**

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					2.7569	0.0000	2.7569	1.3393	0.0000	1.3393			0.0000			0.0000
Off-Road	2.8090	30.0053	16.4918	0.0383		1.3072	1.3072		1.2026	1.2026	0.0000	3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**2.8090**	**30.0053**	**16.4918**	**0.0383**	**2.7569**	**1.3072**	**4.0641**	**1.3393**	**1.2026**	**2.5420**	**0.0000**	**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4294	79.9723	17.7211	0.2197	4.8629	0.2552	5.1181	1.3330	0.2442	1.5772		23,802.8224	23,802.8224	1.6202		23,843.3267
Vendor	0.1956	5.8505	1.5329	0.0143	0.3521	0.0275	0.3797	0.1014	0.0263	0.1277		1,523.6358	1,523.6358	0.0930		1,525.9603
Worker	0.0644	0.0458	0.6130	1.6500e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		164.6558	164.6558	5.1900e-003		164.7856
Total	**2.6895**	**85.8686**	**19.8670**	**0.2356**	**5.3715**	**0.2841**	**5.6556**	**1.4759**	**0.2717**	**1.7476**		**25,491.1140**	**25,491.1140**	**1.7183**		**25,534.0725**

3.5 Building Construction - 2020

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	1.3268	12.2573	9.3847	0.0169		0.6402	0.6402		0.6060	0.6060		1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**1.3268**	**12.2573**	**9.3847**	**0.0169**		**0.6402**	**0.6402**		**0.6060**	**0.6060**		**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1048	3.4505	0.7646	9.4800e-003	1.0411	0.0110	1.0521	0.2616	0.0105	0.2721		1,026.9982	1,026.9982	0.0699		1,028.7458
Vendor	0.0107	0.3191	0.0836	7.8000e-004	0.0192	1.5000e-003	0.0207	5.5300e-003	1.4400e-003	6.9700e-003		83.1074	83.1074	5.0700e-003		83.2342
Worker	0.3912	0.2783	3.7217	0.0100	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		999.6959	999.6959	0.0315		1,000.4839
Total	**0.5067**	**4.0479**	**4.5699**	**0.0203**	**2.0104**	**0.0205**	**2.0308**	**0.5191**	**0.0193**	**0.5383**		**2,109.8015**	**2,109.8015**	**0.1065**		**2,112.4639**

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	1.3268	12.2573	9.3847	0.0169		0.6402	0.6402		0.6060	0.6060	0.0000	1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**1.3268**	**12.2573**	**9.3847**	**0.0169**		**0.6402**	**0.6402**		**0.6060**	**0.6060**	**0.0000**	**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1048	3.4505	0.7646	9.4800e-003	1.0411	0.0110	1.0521	0.2616	0.0105	0.2721		1,026.9982	1,026.9982	0.0699		1,028.7458
Vendor	0.0107	0.3191	0.0836	7.8000e-004	0.0192	1.5000e-003	0.0207	5.5300e-003	1.4400e-003	6.9700e-003		83.1074	83.1074	5.0700e-003		83.2342
Worker	0.3912	0.2783	3.7217	0.0100	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		999.6959	999.6959	0.0315		1,000.4839
Total	**0.5067**	**4.0479**	**4.5699**	**0.0203**	**2.0104**	**0.0205**	**2.0308**	**0.5191**	**0.0193**	**0.5383**		**2,109.8015**	**2,109.8015**	**0.1065**		**2,112.4639**

3.5 Building Construction - 2021

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	1.1922	11.1358	9.1716	0.0169		0.5528	0.5528		0.5231	0.5231		1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**1.1922**	**11.1358**	**9.1716**	**0.0169**		**0.5528**	**0.5528**		**0.5231**	**0.5231**		**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1001	3.2189	0.7548	9.3600e-003	0.5003	9.8800e-003	0.5102	0.1288	9.4500e-003	0.1383		1,015.7355	1,015.7355	0.0689		1,017.4588
Vendor	9.1200e-003	0.2913	0.0762	7.7000e-004	0.0192	6.0000e-004	0.0198	5.5300e-003	5.7000e-004	6.1000e-003		82.4642	82.4642	4.8600e-003		82.5856
Worker	0.3644	0.2504	3.4236	9.7200e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		967.9544	967.9544	0.0285		968.6674
Total	**0.4735**	**3.7606**	**4.2545**	**0.0199**	**1.4696**	**0.0182**	**1.4877**	**0.3863**	**0.0171**	**0.4034**		**2,066.1541**	**2,066.1541**	**0.1023**		**2,068.7118**

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	1.1922	11.1358	9.1716	0.0169		0.5528	0.5528		0.5231	0.5231	0.0000	1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**1.1922**	**11.1358**	**9.1716**	**0.0169**		**0.5528**	**0.5528**		**0.5231**	**0.5231**	**0.0000**	**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1001	3.2189	0.7548	9.3600e-003	0.5003	9.8800e-003	0.5102	0.1288	9.4500e-003	0.1383		1,015.7355	1,015.7355	0.0689		1,017.4588
Vendor	9.1200e-003	0.2913	0.0762	7.7000e-004	0.0192	6.0000e-004	0.0198	5.5300e-003	5.7000e-004	6.1000e-003		82.4642	82.4642	4.8600e-003		82.5856
Worker	0.3644	0.2504	3.4236	9.7200e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		967.9544	967.9544	0.0285		968.6674
Total	**0.4735**	**3.7606**	**4.2545**	**0.0199**	**1.4696**	**0.0182**	**1.4877**	**0.3863**	**0.0171**	**0.4034**		**2,066.1541**	**2,066.1541**	**0.1023**		**2,068.7118**

3.5 Building Construction - 2022

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	1.0779	9.9445	9.0244	0.0169		0.4744	0.4744		0.4491	0.4491		1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**1.0779**	**9.9445**	**9.0244**	**0.0169**		**0.4744**	**0.4744**		**0.4491**	**0.4491**		**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0952	2.9902	0.7471	9.2400e-003	0.5003	8.5800e-003	0.5089	0.1288	8.2100e-003	0.1370		1,003.7220	1,003.7220	0.0679		1,005.4194
Vendor	8.5600e-003	0.2770	0.0720	7.6000e-004	0.0192	5.2000e-004	0.0197	5.5300e-003	5.0000e-004	6.0300e-003		81.7458	81.7458	4.6900e-003		81.8630
Worker	0.3413	0.2262	3.1586	9.3700e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		933.9055	933.9055	0.0258		934.5499
Total	**0.4451**	**3.4935**	**3.9777**	**0.0194**	**1.4696**	**0.0165**	**1.4861**	**0.3863**	**0.0156**	**0.4019**		**2,019.3732**	**2,019.3732**	**0.0984**		**2,021.8323**

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	1.0779	9.9445	9.0244	0.0169		0.4744	0.4744		0.4491	0.4491	0.0000	1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**1.0779**	**9.9445**	**9.0244**	**0.0169**		**0.4744**	**0.4744**		**0.4491**	**0.4491**	**0.0000**	**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0952	2.9902	0.7471	9.2400e-003	0.5003	8.5800e-003	0.5089	0.1288	8.2100e-003	0.1370		1,003.7220	1,003.7220	0.0679		1,005.4194
Vendor	8.5600e-003	0.2770	0.0720	7.6000e-004	0.0192	5.2000e-004	0.0197	5.5300e-003	5.0000e-004	6.0300e-003		81.7458	81.7458	4.6900e-003		81.8630
Worker	0.3413	0.2262	3.1586	9.3700e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		933.9055	933.9055	0.0258		934.5499
Total	**0.4451**	**3.4935**	**3.9777**	**0.0194**	**1.4696**	**0.0165**	**1.4861**	**0.3863**	**0.0156**	**0.4019**		**2,019.3732**	**2,019.3732**	**0.0984**		**2,021.8323**

3.5 Building Construction - 2023

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	0.9999	9.1731	8.9348	0.0169		0.4172	0.4172		0.3948	0.3948		1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.9999**	**9.1731**	**8.9348**	**0.0169**		**0.4172**	**0.4172**		**0.3948**	**0.3948**		**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0625	1.9727	0.6820	8.8300e-003	1.2424	3.5700e-003	1.2460	0.3110	3.4200e-003	0.3144		961.8778	961.8778	0.0632		963.4576
Vendor	6.3500e-003	0.2102	0.0651	7.4000e-004	0.0192	2.4000e-004	0.0195	5.5300e-003	2.3000e-004	5.7600e-003		79.1722	79.1722	4.1600e-003		79.2762
Worker	0.3205	0.2047	2.9088	9.0300e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		899.7097	899.7097	0.0232		900.2907
Total	**0.3893**	**2.3875**	**3.6558**	**0.0186**	**2.2118**	**0.0110**	**2.2228**	**0.5685**	**0.0103**	**0.5788**		**1,940.7597**	**1,940.7597**	**0.0906**		**1,943.0245**

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	0.9999	9.1731	8.9348	0.0169		0.4172	0.4172		0.3948	0.3948	0.0000	1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.9999**	**9.1731**	**8.9348**	**0.0169**		**0.4172**	**0.4172**		**0.3948**	**0.3948**	**0.0000**	**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0625	1.9727	0.6820	8.8300e-003	1.2424	3.5700e-003	1.2460	0.3110	3.4200e-003	0.3144		961.8778	961.8778	0.0632		963.4576
Vendor	6.3500e-003	0.2102	0.0651	7.4000e-004	0.0192	2.4000e-004	0.0195	5.5300e-003	2.3000e-004	5.7600e-003		79.1722	79.1722	4.1600e-003		79.2762
Worker	0.3205	0.2047	2.9088	9.0300e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		899.7097	899.7097	0.0232		900.2907
Total	**0.3893**	**2.3875**	**3.6558**	**0.0186**	**2.2118**	**0.0110**	**2.2228**	**0.5685**	**0.0103**	**0.5788**		**1,940.7597**	**1,940.7597**	**0.0906**		**1,943.0245**

3.6 Paving - 2023

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	0.6313	6.1230	8.5577	0.0133		0.3032	0.3032		0.2798	0.2798		1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6313**	**6.1230**	**8.5577**	**0.0133**		**0.3032**	**0.3032**		**0.2798**	**0.2798**		**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0104	0.3288	0.1137	1.4700e-003	0.0350	6.0000e-004	0.0356	9.5900e-003	5.7000e-004	0.0102		160.3130	160.3130	0.0105		160.5763
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0377	0.0241	0.3422	1.0600e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		105.8482	105.8482	2.7300e-003		105.9166
Total	**0.0502**	**0.4229**	**0.4776**	**2.7800e-003**	**0.1532**	**1.5300e-003**	**0.1547**	**0.0411**	**1.4300e-003**	**0.0425**		**292.5519**	**292.5519**	**0.0147**		**292.9182**

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	0.6313	6.1230	8.5577	0.0133		0.3032	0.3032		0.2798	0.2798	0.0000	1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6313**	**6.1230**	**8.5577**	**0.0133**		**0.3032**	**0.3032**		**0.2798**	**0.2798**	**0.0000**	**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0104	0.3288	0.1137	1.4700e-003	0.0350	6.0000e-004	0.0356	9.5900e-003	5.7000e-004	0.0102		160.3130	160.3130	0.0105		160.5763
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0377	0.0241	0.3422	1.0600e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		105.8482	105.8482	2.7300e-003		105.9166
Total	**0.0502**	**0.4229**	**0.4776**	**2.7800e-003**	**0.1532**	**1.5300e-003**	**0.1547**	**0.0411**	**1.4300e-003**	**0.0425**		**292.5519**	**292.5519**	**0.0147**		**292.9182**

3.7 Architectural Coating - 2023

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					
Archit. Coating	159.1824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	**159.4379**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**		**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.2000e-003	0.1644	0.0568	7.4000e-004	0.0175	3.0000e-004	0.0178	4.7900e-003	2.8000e-004	5.0800e-003		80.1565	80.1565	5.2700e-003		80.2881
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0189	0.0120	0.1711	5.3000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		52.9241	52.9241	1.3700e-003		52.9583
Total	**0.0262**	**0.2465**	**0.2496**	**1.5200e-003**	**0.0798**	**8.1000e-004**	**0.0806**	**0.0215**	**7.5000e-004**	**0.0222**		**159.4713**	**159.4713**	**8.0300e-003**		**159.6718**

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					
Archit. Coating	159.1824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253
Total	**159.4379**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**	**0.0000**	**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.2000e-003	0.1644	0.0568	7.4000e-004	0.0175	3.0000e-004	0.0178	4.7900e-003	2.8000e-004	5.0800e-003		80.1565	80.1565	5.2700e-003		80.2881
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0189	0.0120	0.1711	5.3000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		52.9241	52.9241	1.3700e-003		52.9583
Total	**0.0262**	**0.2465**	**0.2496**	**1.5200e-003**	**0.0798**	**8.1000e-004**	**0.0806**	**0.0215**	**7.5000e-004**	**0.0222**		**159.4713**	**159.4713**	**8.0300e-003**		**159.6718**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309
Unmitigated	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,116.80	2,116.80	2116.80	7,233,427	7,233,427
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	614.00	614.00	614.00	836,778	836,778
Pharmacy/Drugstore with Drive Thru	784.00	784.00	784.00	1,041,658	1,041,658
Total	3,514.80	3,514.80	3,514.80	9,111,863	9,111,863

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Pharmacy/Drugstore with Drive	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Pharmacy/Drugstore with Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	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	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
NaturalGas Unmitigated	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239

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					
Apartments Mid Rise	12993.4	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	62.9041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	12.9934	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	0.0629041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Unmitigated	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

7940 Lankershim Boulevard - without PDFs

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	14.00	1000sqft	0.00	14,000.00	0
Enclosed Parking with Elevator	541.00	Space	0.00	216,400.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.00	8,000.00	0
Apartments Mid Rise	432.00	Dwelling Unit	4.69	432,000.00	1236

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	669	**CH4 Intensity (lb/MWhr)**	0.026	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Accounts for RPS for LADWP

Land Use - 4.69-acre site; 541 parking spaces associated with proposed project parking structure

Construction Phase - Construction to occur 6 days/week

Off-road Equipment - Architectural coating equip

Off-road Equipment - Building equip

Off-road Equipment - Demolition equip

Off-road Equipment - Grading equip

Off-road Equipment - Paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Anticipated construction vehicle trips

Demolition - Based on 7 daily haul truck trips over 40 days, and assuming building debris density is 1,620 lbs/cyd

Grading - 89,000 cy of soil export

Architectural Coating - construction coatings

Vehicle Trips - Accounts for less trips from walk-in/transit reduction, internal apture, and pass-by reductions

Woodstoves - Accounts for outdoor courtyard fireplaces (2) and firepits (2); Assumes these outdoor amenites would be used 30% of the year.

Area Coating - Coatings

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Energy Mitigation - Use of Energy Star appliances

Water Mitigation - CALGreen

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	40.00
tblApplianceMitigation	PercentImprovement	15.00	9.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstructionPhase	NumDays	230.00	886.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	8.00	40.00
tblConstructionPhase	NumDays	18.00	12.00
tblConstructionPhase	NumDays	5.00	28.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	110.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	367.20	4.00
tblFireplaces	NumberNoFireplace	43.20	428.00
tblFireplaces	NumberWood	21.60	0.00
tblGrading	MaterialExported	0.00	89,000.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	4.87	0.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	11.37	4.69
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	1227.89	669
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	359.00	280.00
tblTripsAndVMT	HaulingTripNumber	0.00	924.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,632.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00

tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	55.00
tblTripsAndVMT	VendorTripNumber	85.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	410.00	85.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	82.00	5.00
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	158.37	76.75
tblVehicleTrips	ST_TR	96.91	56.00
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	131.84	76.75
tblVehicleTrips	SU_TR	96.91	56.00
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	127.15	76.75
tblVehicleTrips	WD_TR	96.91	56.00
tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2019	3.4615	36.5704	19.9910	0.0430	2.2177	1.6850	3.9027	0.3687	1.5643	1.9330	0.0000	4,297.8739	4,297.8739	1.0468	0.0000	4,324.0444
2020	5.5734	116.9127	37.5772	0.2697	12.4406	1.5956	14.0362	4.9101	1.4785	6.3886	0.0000	28,741.5966	28,741.5966	2.9835	0.0000	28,816.1838
2021	1.7096	14.9620	13.1863	0.0360	1.4696	0.5711	2.0407	0.3863	0.5404	0.9267	0.0000	3,583.3030	3,583.3030	0.4614	0.0000	3,594.8379
2022	1.5651	13.4954	12.7777	0.0355	1.4696	0.4911	1.9606	0.3863	0.4648	0.8511	0.0000	3,539.0318	3,539.0318	0.4543	0.0000	3,550.3897
2023	160.1530	11.5953	12.3668	0.0348	2.2118	0.4283	2.6401	0.5685	0.4052	0.9737	0.0000	3,463.7038	3,463.7038	0.4477	0.0000	3,474.7766
Maximum	**160.1530**	**116.9127**	**37.5772**	**0.2697**	**12.4406**	**1.6850**	**14.0362**	**4.9101**	**1.5643**	**6.3886**	**0.0000**	**28,741.5966**	**28,741.5966**	**2.9835**	**0.0000**	**28,816.1838**

2.1 Overall Construction (Maximum Daily Emission)

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					
2019	3.4615	36.5704	19.9910	0.0430	1.0331	1.6850	2.7181	0.1893	1.5643	1.7537	0.0000	4,297.8739	4,297.8739	1.0468	0.0000	4,324.0444
2020	5.5734	116.9127	37.5772	0.2697	8.1284	1.5956	9.7240	2.8152	1.4785	4.2937	0.0000	28,741.5966	28,741.5966	2.9835	0.0000	28,816.1838
2021	1.7096	14.9620	13.1863	0.0360	1.4696	0.5711	2.0407	0.3863	0.5404	0.9267	0.0000	3,583.3030	3,583.3030	0.4614	0.0000	3,594.8379
2022	1.5651	13.4954	12.7777	0.0355	1.4696	0.4911	1.9606	0.3863	0.4648	0.8511	0.0000	3,539.0318	3,539.0318	0.4543	0.0000	3,550.3897
2023	160.1530	11.5953	12.3668	0.0348	2.2118	0.4283	2.6401	0.5685	0.4052	0.9737	0.0000	3,463.7038	3,463.7038	0.4477	0.0000	3,474.7766
Maximum	**160.1530**	**116.9127**	**37.5772**	**0.2697**	**8.1284**	**1.6850**	**9.7240**	**2.8152**	**1.5643**	**4.2937**	**0.0000**	**28,741.5966**	**28,741.5966**	**2.9835**	**0.0000**	**28,816.1838**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**27.75**	**0.00**	**22.36**	**34.35**	**0.00**	**20.54**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932
Total	**16.1325**	**23.4978**	**97.2699**	**0.2356**	**19.3757**	**0.5115**	**19.8872**	**5.1851**	**0.4994**	**5.6844**	**0.0000**	**24,979.4183**	**24,979.4183**	**1.2661**	**0.0406**	**25,023.1749**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932
Total	**16.1325**	**23.4978**	**97.2699**	**0.2356**	**19.3757**	**0.5115**	**19.8872**	**5.1851**	**0.4994**	**5.6844**	**0.0000**	**24,979.4183**	**24,979.4183**	**1.2661**	**0.0406**	**25,023.1749**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10/1/2019	11/15/2019	6	40	
2	Site Preparation	Site Preparation	5/1/2020	6/2/2020	6	28	
3	Grading	Grading	6/3/2020	7/18/2020	6	40	
4	Building Construction	Building Construction	7/19/2020	5/18/2023	6	886	
5	Paving	Paving	5/19/2023	6/1/2023	6	12	
6	Architectural Coating	Architectural Coating	5/19/2023	6/8/2023	6	18	

Acres of Grading (Site Preparation Phase): 28

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 874,800; Residential Outdoor: 291,600; Non-Residential Indoor: 33,000; Non-Residential Outdoor: 11,000; Striped Parking Area: 12,984 (Architectural Coating – sqft)

OffRoad Equipment

7940 Lankershim Boulevard - without PDFs - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Off-Highway Trucks	1	2.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Scrapers	1	4.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	2	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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	6	12.00	3.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	10.00	17.00	924.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	14.00	55.00	11,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	85.00	3.00	10,632.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	1.00	24.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	1.00	18.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					1.9420	0.0000	1.9420	0.2940	0.0000	0.2940			0.0000			0.0000
Off-Road	3.3146	34.0014	18.8705	0.0354		1.6736	1.6736		1.5535	1.5535		3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**3.3146**	**34.0014**	**18.8705**	**0.0354**	**1.9420**	**1.6736**	**3.6155**	**0.2940**	**1.5535**	**1.8475**		**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0674	2.1726	0.4880	5.5000e-003	0.1224	8.0100e-003	0.1304	0.0336	7.6700e-003	0.0412		594.8948	594.8948	0.0433		595.9764
Vendor	0.0130	0.3477	0.1015	7.6000e-004	0.0192	2.2500e-003	0.0215	5.5300e-003	2.1500e-003	7.6800e-003		81.3831	81.3831	5.7200e-003		81.5261
Worker	0.0665	0.0488	0.5310	1.3800e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		137.0557	137.0557	4.7100e-003		137.1736
Total	**0.1469**	**2.5690**	**1.1205**	**7.6400e-003**	**0.2757**	**0.0114**	**0.2872**	**0.0747**	**0.0109**	**0.0855**		**813.3336**	**813.3336**	**0.0537**		**814.6760**

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					0.7574	0.0000	0.7574	0.1147	0.0000	0.1147			0.0000			0.0000
Off-Road	3.3146	34.0014	18.8705	0.0354		1.6736	1.6736		1.5535	1.5535	0.0000	3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**3.3146**	**34.0014**	**18.8705**	**0.0354**	**0.7574**	**1.6736**	**2.4309**	**0.1147**	**1.5535**	**1.6681**	**0.0000**	**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0674	2.1726	0.4880	5.5000e-003	0.1224	8.0100e-003	0.1304	0.0336	7.6700e-003	0.0412		594.8948	594.8948	0.0433		595.9764
Vendor	0.0130	0.3477	0.1015	7.6000e-004	0.0192	2.2500e-003	0.0215	5.5300e-003	2.1500e-003	7.6800e-003		81.3831	81.3831	5.7200e-003		81.5261
Worker	0.0665	0.0488	0.5310	1.3800e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		137.0557	137.0557	4.7100e-003		137.1736
Total	**0.1469**	**2.5690**	**1.1205**	**7.6400e-003**	**0.2757**	**0.0114**	**0.2872**	**0.0747**	**0.0109**	**0.0855**		**813.3336**	**813.3336**	**0.0537**		**814.6760**

3.3 Site Preparation - 2020

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					4.0715	0.0000	4.0715	1.7696	0.0000	1.7696			0.0000			0.0000
Off-Road	2.0531	23.1342	11.7943	0.0282		0.9572	0.9572		0.8806	0.8806		2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**2.0531**	**23.1342**	**11.7943**	**0.0282**	**4.0715**	**0.9572**	**5.0287**	**1.7696**	**0.8806**	**2.6502**		**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2953	9.6117	2.2346	0.0256	0.5770	0.0308	0.6077	0.1582	0.0294	0.1876		2,775.6104	2,775.6104	0.1992		2,780.5911
Vendor	0.0632	1.8080	0.5226	4.2900e-003	0.1088	8.6500e-003	0.1175	0.0313	8.2700e-003	0.0396		458.0634	458.0634	0.0306		458.8292
Worker	0.0511	0.0363	0.4010	1.1100e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		110.7420	110.7420	3.4900e-003		110.8293
Total	**0.4096**	**11.4559**	**3.1582**	**0.0310**	**0.7976**	**0.0403**	**0.8379**	**0.2191**	**0.0386**	**0.2577**		**3,344.4159**	**3,344.4159**	**0.2334**		**3,350.2495**

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					1.5879	0.0000	1.5879	0.6902	0.0000	0.6902			0.0000			0.0000
Off-Road	2.0531	23.1342	11.7943	0.0282		0.9572	0.9572		0.8806	0.8806	0.0000	2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**2.0531**	**23.1342**	**11.7943**	**0.0282**	**1.5879**	**0.9572**	**2.5451**	**0.6902**	**0.8806**	**1.5708**	**0.0000**	**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2953	9.6117	2.2346	0.0256	0.5770	0.0308	0.6077	0.1582	0.0294	0.1876		2,775.6104	2,775.6104	0.1992		2,780.5911
Vendor	0.0632	1.8080	0.5226	4.2900e-003	0.1088	8.6500e-003	0.1175	0.0313	8.2700e-003	0.0396		458.0634	458.0634	0.0306		458.8292
Worker	0.0511	0.0363	0.4010	1.1100e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		110.7420	110.7420	3.4900e-003		110.8293
Total	**0.4096**	**11.4559**	**3.1582**	**0.0310**	**0.7976**	**0.0403**	**0.8379**	**0.2191**	**0.0386**	**0.2577**		**3,344.4159**	**3,344.4159**	**0.2334**		**3,350.2495**

3.4 Grading - 2020

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					7.0691	0.0000	7.0691	3.4342	0.0000	3.4342			0.0000			0.0000
Off-Road	2.8090	30.0053	16.4918	0.0383		1.3072	1.3072		1.2026	1.2026		3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**2.8090**	**30.0053**	**16.4918**	**0.0383**	**7.0691**	**1.3072**	**8.3763**	**3.4342**	**1.2026**	**4.6368**		**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4884	81.0074	18.8333	0.2159	4.8629	0.2592	5.1220	1.3330	0.2479	1.5809		23,392.9288	23,392.9288	1.6791		23,434.9057
Vendor	0.2045	5.8493	1.6906	0.0139	0.3521	0.0280	0.3801	0.1014	0.0268	0.1281		1,481.9699	1,481.9699	0.0991		1,484.4473
Worker	0.0715	0.0508	0.5614	1.5600e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		155.0389	155.0389	4.8900e-003		155.1610
Total	**2.7645**	**86.9074**	**21.0854**	**0.2313**	**5.3715**	**0.2884**	**5.6599**	**1.4759**	**0.2759**	**1.7518**		**25,029.9375**	**25,029.9375**	**1.7831**		**25,074.5141**

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					2.7569	0.0000	2.7569	1.3393	0.0000	1.3393			0.0000			0.0000
Off-Road	2.8090	30.0053	16.4918	0.0383		1.3072	1.3072		1.2026	1.2026	0.0000	3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**2.8090**	**30.0053**	**16.4918**	**0.0383**	**2.7569**	**1.3072**	**4.0641**	**1.3393**	**1.2026**	**2.5420**	**0.0000**	**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4884	81.0074	18.8333	0.2159	4.8629	0.2592	5.1220	1.3330	0.2479	1.5809		23,392.9288	23,392.9288	1.6791		23,434.9057
Vendor	0.2045	5.8493	1.6906	0.0139	0.3521	0.0280	0.3801	0.1014	0.0268	0.1281		1,481.9699	1,481.9699	0.0991		1,484.4473
Worker	0.0715	0.0508	0.5614	1.5600e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		155.0389	155.0389	4.8900e-003		155.1610
Total	**2.7645**	**86.9074**	**21.0854**	**0.2313**	**5.3715**	**0.2884**	**5.6599**	**1.4759**	**0.2759**	**1.7518**		**25,029.9375**	**25,029.9375**	**1.7831**		**25,074.5141**

3.5 Building Construction - 2020

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	1.3268	12.2573	9.3847	0.0169		0.6402	0.6402		0.6060	0.6060		1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**1.3268**	**12.2573**	**9.3847**	**0.0169**		**0.6402**	**0.6402**		**0.6060**	**0.6060**		**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1074	3.4952	0.8126	9.3100e-003	1.0411	0.0112	1.0523	0.2616	0.0107	0.2723		1,009.3129	1,009.3129	0.0725		1,011.1240
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.4344	0.3081	3.4086	9.4500e-003	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		941.3073	941.3073	0.0297		942.0491
Total	**0.5529**	**4.1223**	**4.3134**	**0.0195**	**2.0104**	**0.0207**	**2.0310**	**0.5191**	**0.0195**	**0.5385**		**2,031.4549**	**2,031.4549**	**0.1075**		**2,034.1429**

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	1.3268	12.2573	9.3847	0.0169		0.6402	0.6402		0.6060	0.6060	0.0000	1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**1.3268**	**12.2573**	**9.3847**	**0.0169**		**0.6402**	**0.6402**		**0.6060**	**0.6060**	**0.0000**	**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1074	3.4952	0.8126	9.3100e-003	1.0411	0.0112	1.0523	0.2616	0.0107	0.2723		1,009.3129	1,009.3129	0.0725		1,011.1240
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.4344	0.3081	3.4086	9.4500e-003	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		941.3073	941.3073	0.0297		942.0491
Total	**0.5529**	**4.1223**	**4.3134**	**0.0195**	**2.0104**	**0.0207**	**2.0310**	**0.5191**	**0.0195**	**0.5385**		**2,031.4549**	**2,031.4549**	**0.1075**		**2,034.1429**

3.5 Building Construction - 2021

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	1.1922	11.1358	9.1716	0.0169		0.5528	0.5528		0.5231	0.5231		1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**1.1922**	**11.1358**	**9.1716**	**0.0169**		**0.5528**	**0.5528**		**0.5231**	**0.5231**		**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1025	3.2584	0.8003	9.2000e-003	0.5003	0.0100	0.5103	0.1288	9.6000e-003	0.1384		998.1397	998.1397	0.0714		999.9238
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.4053	0.2772	3.1302	9.1500e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		911.4134	911.4134	0.0268		912.0839
Total	**0.5173**	**3.8263**	**4.0147**	**0.0191**	**1.4696**	**0.0183**	**1.4879**	**0.3863**	**0.0173**	**0.4036**		**1,989.7568**	**1,989.7568**	**0.1034**		**1,992.3408**

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	1.1922	11.1358	9.1716	0.0169		0.5528	0.5528		0.5231	0.5231	0.0000	1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**1.1922**	**11.1358**	**9.1716**	**0.0169**		**0.5528**	**0.5528**		**0.5231**	**0.5231**	**0.0000**	**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1025	3.2584	0.8003	9.2000e-003	0.5003	0.0100	0.5103	0.1288	9.6000e-003	0.1384		998.1397	998.1397	0.0714		999.9238
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.4053	0.2772	3.1302	9.1500e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		911.4134	911.4134	0.0268		912.0839
Total	**0.5173**	**3.8263**	**4.0147**	**0.0191**	**1.4696**	**0.0183**	**1.4879**	**0.3863**	**0.0173**	**0.4036**		**1,989.7568**	**1,989.7568**	**0.1034**		**1,992.3408**

3.5 Building Construction - 2022

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	1.0779	9.9445	9.0244	0.0169		0.4744	0.4744		0.4491	0.4491		1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**1.0779**	**9.9445**	**9.0244**	**0.0169**		**0.4744**	**0.4744**		**0.4491**	**0.4491**		**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0975	3.0244	0.7905	9.0800e-003	0.5003	8.7200e-003	0.5090	0.1288	8.3400e-003	0.1372		986.1801	986.1801	0.0702		987.9354
Vendor	8.9900e-003	0.2762	0.0797	7.4000e-004	0.0192	5.4000e-004	0.0197	5.5300e-003	5.1000e-004	6.0400e-003		79.4911	79.4911	5.0000e-003		79.6160
Worker	0.3807	0.2504	2.8830	8.8200e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		879.3840	879.3840	0.0242		879.9894
Total	**0.4872**	**3.5510**	**3.7533**	**0.0186**	**1.4696**	**0.0167**	**1.4863**	**0.3863**	**0.0157**	**0.4020**		**1,945.0552**	**1,945.0552**	**0.0994**		**1,947.5408**

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	1.0779	9.9445	9.0244	0.0169		0.4744	0.4744		0.4491	0.4491	0.0000	1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**1.0779**	**9.9445**	**9.0244**	**0.0169**		**0.4744**	**0.4744**		**0.4491**	**0.4491**	**0.0000**	**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0975	3.0244	0.7905	9.0800e-003	0.5003	8.7200e-003	0.5090	0.1288	8.3400e-003	0.1372		986.1801	986.1801	0.0702		987.9354
Vendor	8.9900e-003	0.2762	0.0797	7.4000e-004	0.0192	5.4000e-004	0.0197	5.5300e-003	5.1000e-004	6.0400e-003		79.4911	79.4911	5.0000e-003		79.6160
Worker	0.3807	0.2504	2.8830	8.8200e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		879.3840	879.3840	0.0242		879.9894
Total	**0.4872**	**3.5510**	**3.7533**	**0.0186**	**1.4696**	**0.0167**	**1.4863**	**0.3863**	**0.0157**	**0.4020**		**1,945.0552**	**1,945.0552**	**0.0994**		**1,947.5408**

3.5 Building Construction - 2023

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	0.9999	9.1731	8.9348	0.0169		0.4172	0.4172		0.3948	0.3948		1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.9999**	**9.1731**	**8.9348**	**0.0169**		**0.4172**	**0.4172**		**0.3948**	**0.3948**		**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0640	1.9865	0.7111	8.6800e-003	1.2424	3.6700e-003	1.2461	0.3110	3.5100e-003	0.3145		945.1659	945.1659	0.0650		946.7909
Vendor	6.6800e-003	0.2092	0.0709	7.2000e-004	0.0192	2.6000e-004	0.0195	5.5300e-003	2.4000e-004	5.7700e-003		77.0224	77.0224	4.4000e-003		77.1323
Worker	0.3586	0.2264	2.6500	8.5000e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		847.2125	847.2125	0.0218		847.7576
Total	**0.4293**	**2.4222**	**3.4320**	**0.0179**	**2.2118**	**0.0112**	**2.2229**	**0.5685**	**0.0104**	**0.5789**		**1,869.4007**	**1,869.4007**	**0.0912**		**1,871.6808**

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	0.9999	9.1731	8.9348	0.0169		0.4172	0.4172		0.3948	0.3948	0.0000	1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.9999**	**9.1731**	**8.9348**	**0.0169**		**0.4172**	**0.4172**		**0.3948**	**0.3948**	**0.0000**	**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0640	1.9865	0.7111	8.6800e-003	1.2424	3.6700e-003	1.2461	0.3110	3.5100e-003	0.3145		945.1659	945.1659	0.0650		946.7909
Vendor	6.6800e-003	0.2092	0.0709	7.2000e-004	0.0192	2.6000e-004	0.0195	5.5300e-003	2.4000e-004	5.7700e-003		77.0224	77.0224	4.4000e-003		77.1323
Worker	0.3586	0.2264	2.6500	8.5000e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		847.2125	847.2125	0.0218		847.7576
Total	**0.4293**	**2.4222**	**3.4320**	**0.0179**	**2.2118**	**0.0112**	**2.2229**	**0.5685**	**0.0104**	**0.5789**		**1,869.4007**	**1,869.4007**	**0.0912**		**1,871.6808**

3.6 Paving - 2023

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	0.6313	6.1230	8.5577	0.0133		0.3032	0.3032		0.2798	0.2798		1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6313**	**6.1230**	**8.5577**	**0.0133**		**0.3032**	**0.3032**		**0.2798**	**0.2798**		**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0107	0.3311	0.1185	1.4500e-003	0.0350	6.1000e-004	0.0356	9.5900e-003	5.9000e-004	0.0102		157.5276	157.5276	0.0108		157.7985
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0422	0.0266	0.3118	1.0000e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		99.6721	99.6721	2.5700e-003		99.7362
Total	**0.0551**	**0.4275**	**0.4539**	**2.6900e-003**	**0.1532**	**1.5500e-003**	**0.1547**	**0.0411**	**1.4500e-003**	**0.0425**		**282.8738**	**282.8738**	**0.0149**		**283.2455**

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	0.6313	6.1230	8.5577	0.0133		0.3032	0.3032		0.2798	0.2798	0.0000	1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6313**	**6.1230**	**8.5577**	**0.0133**		**0.3032**	**0.3032**		**0.2798**	**0.2798**	**0.0000**	**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0107	0.3311	0.1185	1.4500e-003	0.0350	6.1000e-004	0.0356	9.5900e-003	5.9000e-004	0.0102		157.5276	157.5276	0.0108		157.7985
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0422	0.0266	0.3118	1.0000e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		99.6721	99.6721	2.5700e-003		99.7362
Total	**0.0551**	**0.4275**	**0.4539**	**2.6900e-003**	**0.1532**	**1.5500e-003**	**0.1547**	**0.0411**	**1.4500e-003**	**0.0425**		**282.8738**	**282.8738**	**0.0149**		**283.2455**

3.7 Architectural Coating - 2023

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					
Archit. Coating	159.1824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	**159.4379**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**		**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.3300e-003	0.1656	0.0593	7.2000e-004	0.0175	3.1000e-004	0.0178	4.7900e-003	2.9000e-004	5.0900e-003		78.7638	78.7638	5.4200e-003		78.8992
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0211	0.0133	0.1559	5.0000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		49.8360	49.8360	1.2800e-003		49.8681
Total	**0.0287**	**0.2486**	**0.2388**	**1.4600e-003**	**0.0798**	**8.3000e-004**	**0.0806**	**0.0215**	**7.6000e-004**	**0.0222**		**154.2740**	**154.2740**	**8.1700e-003**		**154.4781**

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					
Archit. Coating	159.1824					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253
Total	**159.4379**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**	**0.0000**	**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.3300e-003	0.1656	0.0593	7.2000e-004	0.0175	3.1000e-004	0.0178	4.7900e-003	2.9000e-004	5.0900e-003		78.7638	78.7638	5.4200e-003		78.8992
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0211	0.0133	0.1559	5.0000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		49.8360	49.8360	1.2800e-003		49.8681
Total	**0.0287**	**0.2486**	**0.2388**	**1.4600e-003**	**0.0798**	**8.3000e-004**	**0.0806**	**0.0215**	**7.6000e-004**	**0.0222**		**154.2740**	**154.2740**	**8.1700e-003**		**154.4781**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932
Unmitigated	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,116.80	2,116.80	2116.80	7,233,427	7,233,427
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	614.00	614.00	614.00	836,778	836,778
Pharmacy/Drugstore with Drive Thru	784.00	784.00	784.00	1,041,658	1,041,658
Total	3,514.80	3,514.80	3,514.80	9,111,863	9,111,863

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Pharmacy/Drugstore with Drive	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Pharmacy/Drugstore with Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	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	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
NaturalGas Unmitigated	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239

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					
Apartments Mid Rise	12993.4	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	62.9041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	12.9934	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	0.0629041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Unmitigated	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

7940 Lankershim Boulevard - without PDFs

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	14.00	1000sqft	0.00	14,000.00	0
Enclosed Parking with Elevator	541.00	Space	0.00	216,400.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.00	8,000.00	0
Apartments Mid Rise	432.00	Dwelling Unit	4.69	432,000.00	1236

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	669	**CH4 Intensity (lb/MWhr)**	0.026	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Accounts for RPS for LADWP

Land Use - 4.69-acre site; 541 parking spaces associated with proposed project parking structure

Construction Phase - Construction to occur 6 days/week

Off-road Equipment - Architectural coating equip

Off-road Equipment - Building equip

Off-road Equipment - Demolition equip

Off-road Equipment - Grading equip

Off-road Equipment - Paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Anticipated construction vehicle trips

Demolition - Based on 7 daily haul truck trips over 40 days, and assuming building debris density is 1,620 lbs/cyd

Grading - 89,000 cy of soil export

Architectural Coating - construction coatings

Vehicle Trips - Accounts for less trips from walk-in/transit reduction, internal apture, and pass-by reductions

Woodstoves - Accounts for outdoor courtyard fireplaces (2) and firepits (2); Assumes these outdoor amenites would be used 30% of the year.

Area Coating - Coatings

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403

Energy Mitigation - Use of Energy Star appliances

Water Mitigation - CALGreen

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	40.00
tblApplianceMitigation	PercentImprovement	15.00	9.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstructionPhase	NumDays	230.00	886.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	NumDays	8.00	40.00
tblConstructionPhase	NumDays	18.00	12.00
tblConstructionPhase	NumDays	5.00	28.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	110.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	367.20	4.00
tblFireplaces	NumberNoFireplace	43.20	428.00
tblFireplaces	NumberWood	21.60	0.00
tblGrading	MaterialExported	0.00	89,000.00
tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	4.87	0.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	11.37	4.69
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	1227.89	669
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	359.00	280.00
tblTripsAndVMT	HaulingTripNumber	0.00	924.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,632.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00

tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	55.00
tblTripsAndVMT	VendorTripNumber	85.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	410.00	85.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	82.00	5.00
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	158.37	76.75
tblVehicleTrips	ST_TR	96.91	56.00
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	131.84	76.75
tblVehicleTrips	SU_TR	96.91	56.00
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	127.15	76.75
tblVehicleTrips	WD_TR	96.91	56.00
tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2019	0.0691	0.7324	0.3997	8.6000e-004	0.0443	0.0337	0.0780	7.3500e-003	0.0313	0.0386	0.0000	78.1525	78.1525	0.0190	0.0000	78.6268
2020	0.2752	4.0285	1.9226	8.8800e-003	0.4548	0.0927	0.5475	0.1617	0.0868	0.2485	0.0000	839.1383	839.1383	0.0978	0.0000	841.5841
2021	0.2611	2.3535	2.0722	5.6700e-003	0.2254	0.0894	0.3148	0.0593	0.0846	0.1439	0.0000	512.5257	512.5257	0.0654	0.0000	514.1595
2022	0.2388	2.1231	2.0076	5.6000e-003	0.2254	0.0768	0.3023	0.0593	0.0727	0.1321	0.0000	506.1585	506.1585	0.0644	0.0000	507.7672
2023	1.5214	0.7441	0.8109	2.2100e-003	0.1294	0.0280	0.1573	0.0333	0.0265	0.0598	0.0000	199.5389	199.5389	0.0262	0.0000	200.1935
Maximum	**1.5214**	**4.0285**	**2.0722**	**8.8800e-003**	**0.4548**	**0.0927**	**0.5475**	**0.1617**	**0.0868**	**0.2485**	**0.0000**	**839.1383**	**839.1383**	**0.0978**	**0.0000**	**841.5841**

2.1 Overall Construction

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					
2019	0.0691	0.7324	0.3997	8.6000e-004	0.0206	0.0337	0.0543	3.7600e-003	0.0313	0.0351	0.0000	78.1524	78.1524	0.0190	0.0000	78.6268
2020	0.2752	4.0285	1.9226	8.8800e-003	0.3337	0.0927	0.4265	0.1047	0.0868	0.1915	0.0000	839.1381	839.1381	0.0978	0.0000	841.5838
2021	0.2611	2.3535	2.0722	5.6700e-003	0.2254	0.0894	0.3148	0.0593	0.0846	0.1439	0.0000	512.5255	512.5255	0.0654	0.0000	514.1592
2022	0.2388	2.1231	2.0076	5.6000e-003	0.2254	0.0768	0.3023	0.0593	0.0727	0.1321	0.0000	506.1583	506.1583	0.0644	0.0000	507.7670
2023	1.5214	0.7441	0.8109	2.2100e-003	0.1294	0.0280	0.1573	0.0333	0.0265	0.0598	0.0000	199.5388	199.5388	0.0262	0.0000	200.1934
Maximum	**1.5214**	**4.0285**	**2.0722**	**8.8800e-003**	**0.3337**	**0.0927**	**0.4265**	**0.1047**	**0.0868**	**0.1915**	**0.0000**	**839.1381**	**839.1381**	**0.0978**	**0.0000**	**841.5838**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**13.41**	**0.00**	**10.34**	**18.88**	**0.00**	**9.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2019	12-31-2019	0.7892	0.7892
3	4-1-2020	6-30-2020	1.9785	1.9785
4	7-1-2020	9-30-2020	1.5116	1.5116
5	10-1-2020	12-31-2020	0.7199	0.7199
6	1-1-2021	3-31-2021	0.6430	0.6430
7	4-1-2021	6-30-2021	0.6459	0.6459

8	**7-1-2021**	**9-30-2021**	0.6530	0.6530
9	**10-1-2021**	**12-31-2021**	0.6573	0.6573
10	**1-1-2022**	**3-31-2022**	0.5809	0.5809
11	**4-1-2022**	**6-30-2022**	0.5835	0.5835
12	**7-1-2022**	**9-30-2022**	0.5899	0.5899
13	**10-1-2022**	**12-31-2022**	0.5938	0.5938
14	**1-1-2023**	**3-31-2023**	0.5024	0.5024
15	**4-1-2023**	**6-30-2023**	1.7628	1.7628
		Highest	1.9785	1.9785

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	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186
Energy	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	1,433.5371	1,433.5371	0.0488	0.0113	1,438.1279
Mobile	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345
Waste						0.0000	0.0000		0.0000	0.0000	68.2090	0.0000	68.2090	4.0310	0.0000	168.9850
Water						0.0000	0.0000		0.0000	0.0000	10.0129	187.0901	197.1029	1.0357	0.0251	230.4816
Total	**2.8547**	**4.3106**	**15.8057**	**0.0433**	**3.4583**	**0.0811**	**3.5394**	**0.9270**	**0.0789**	**1.0059**	**78.2219**	**5,434.9098**	**5,513.1317**	**5.3134**	**0.0365**	**5,656.8476**

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	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186
Energy	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	1,424.9873	1,424.9873	0.0484	0.0113	1,429.5584
Mobile	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345
Waste						0.0000	0.0000		0.0000	0.0000	16.3702	0.0000	16.3702	0.9675	0.0000	40.5564
Water						0.0000	0.0000		0.0000	0.0000	8.0103	162.1488	170.1591	0.8290	0.0202	196.8908
Total	**2.8547**	**4.3106**	**15.8057**	**0.0433**	**3.4583**	**0.0811**	**3.5394**	**0.9270**	**0.0789**	**1.0059**	**24.3805**	**5,401.4188**	**5,425.7993**	**2.0428**	**0.0315**	**5,486.2588**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**68.83**	**0.62**	**1.58**	**61.55**	**13.69**	**3.02**

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	10/1/2019	11/15/2019	6	40	
2	Site Preparation	Site Preparation	5/1/2020	6/2/2020	6	28	
3	Grading	Grading	6/3/2020	7/18/2020	6	40	
4	Building Construction	Building Construction	7/19/2020	5/18/2023	6	886	
5	Paving	Paving	5/19/2023	6/1/2023	6	12	
6	Architectural Coating	Architectural Coating	5/19/2023	6/8/2023	6	18	

Acres of Grading (Site Preparation Phase): 28

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 874,800; Residential Outdoor: 291,600; Non-Residential Indoor: 33,000; Non-Residential Outdoor: 11,000; Striped Parking Area: 12,984 (Architectural Coating – sqft)

OffRoad Equipment

7940 Lankershim Boulevard - without PDFs - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Off-Highway Trucks	1	2.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Scrapers	1	4.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	2	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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	6	12.00	3.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	10.00	17.00	924.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	14.00	55.00	11,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	85.00	3.00	10,632.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	1.00	24.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	1.00	18.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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					0.0388	0.0000	0.0388	5.8800e-003	0.0000	5.8800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0663	0.6800	0.3774	7.1000e-004		0.0335	0.0335		0.0311	0.0311	0.0000	63.2224	63.2224	0.0180	0.0000	63.6729
Total	**0.0663**	**0.6800**	**0.3774**	**7.1000e-004**	**0.0388**	**0.0335**	**0.0723**	**5.8800e-003**	**0.0311**	**0.0370**	**0.0000**	**63.2224**	**63.2224**	**0.0180**	**0.0000**	**63.6729**

3.2 Demolition - 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	1.3300e-003	0.0443	9.4100e-003	1.1000e-004	2.4100e-003	1.6000e-004	2.5600e-003	6.6000e-004	1.5000e-004	8.1000e-004	0.0000	10.9016	10.9016	7.7000e-004	0.0000	10.9208
Vendor	2.5000e-004	7.0900e-003	1.9400e-003	2.0000e-005	3.8000e-004	4.0000e-005	4.2000e-004	1.1000e-004	4.0000e-005	1.5000e-004	0.0000	1.5004	1.5004	1.0000e-004	0.0000	1.5029
Worker	1.2000e-003	1.0000e-003	0.0109	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.5281	2.5281	9.0000e-005	0.0000	2.5302
Total	**2.7800e-003**	**0.0524**	**0.0223**	**1.6000e-004**	**5.4200e-003**	**2.2000e-004**	**5.6300e-003**	**1.4700e-003**	**2.1000e-004**	**1.6800e-003**	**0.0000**	**14.9301**	**14.9301**	**9.6000e-004**	**0.0000**	**14.9539**

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					0.0152	0.0000	0.0152	2.2900e-003	0.0000	2.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0663	0.6800	0.3774	7.1000e-004		0.0335	0.0335		0.0311	0.0311	0.0000	63.2224	63.2224	0.0180	0.0000	63.6728
Total	**0.0663**	**0.6800**	**0.3774**	**7.1000e-004**	**0.0152**	**0.0335**	**0.0486**	**2.2900e-003**	**0.0311**	**0.0334**	**0.0000**	**63.2224**	**63.2224**	**0.0180**	**0.0000**	**63.6728**

3.2 Demolition - 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	1.3300e-003	0.0443	9.4100e-003	1.1000e-004	2.4100e-003	1.6000e-004	2.5600e-003	6.6000e-004	1.5000e-004	8.1000e-004	0.0000	10.9016	10.9016	7.7000e-004	0.0000	10.9208
Vendor	2.5000e-004	7.0900e-003	1.9400e-003	2.0000e-005	3.8000e-004	4.0000e-005	4.2000e-004	1.1000e-004	4.0000e-005	1.5000e-004	0.0000	1.5004	1.5004	1.0000e-004	0.0000	1.5029
Worker	1.2000e-003	1.0000e-003	0.0109	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.5281	2.5281	9.0000e-005	0.0000	2.5302
Total	**2.7800e-003**	**0.0524**	**0.0223**	**1.6000e-004**	**5.4200e-003**	**2.2000e-004**	**5.6300e-003**	**1.4700e-003**	**2.1000e-004**	**1.6800e-003**	**0.0000**	**14.9301**	**14.9301**	**9.6000e-004**	**0.0000**	**14.9539**

3.3 Site Preparation - 2020

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					0.0570	0.0000	0.0570	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0287	0.3239	0.1651	3.9000e-004		0.0134	0.0134		0.0123	0.0123	0.0000	34.6723	34.6723	0.0112	0.0000	34.9527
Total	**0.0287**	**0.3239**	**0.1651**	**3.9000e-004**	**0.0570**	**0.0134**	**0.0704**	**0.0248**	**0.0123**	**0.0371**	**0.0000**	**34.6723**	**34.6723**	**0.0112**	**0.0000**	**34.9527**

3.3 Site Preparation - 2020

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	4.0800e-003	0.1372	0.0302	3.6000e-004	7.9400e-003	4.3000e-004	8.3700e-003	2.1800e-003	4.1000e-004	2.5900e-003	0.0000	35.6101	35.6101	2.4800e-003	0.0000	35.6722
Vendor	8.6000e-004	0.0258	6.9800e-003	6.0000e-005	1.5000e-003	1.2000e-004	1.6200e-003	4.3000e-004	1.1000e-004	5.5000e-004	0.0000	5.9125	5.9125	3.8000e-004	0.0000	5.9219
Worker	6.5000e-004	5.2000e-004	5.7600e-003	2.0000e-005	1.5300e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4299	1.4299	5.0000e-005	0.0000	1.4310
Total	**5.5900e-003**	**0.1635**	**0.0430**	**4.4000e-004**	**0.0110**	**5.6000e-004**	**0.0115**	**3.0200e-003**	**5.3000e-004**	**3.5600e-003**	**0.0000**	**42.9526**	**42.9526**	**2.9100e-003**	**0.0000**	**43.0251**

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					0.0222	0.0000	0.0222	9.6600e-003	0.0000	9.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0287	0.3239	0.1651	3.9000e-004		0.0134	0.0134		0.0123	0.0123	0.0000	34.6723	34.6723	0.0112	0.0000	34.9526
Total	**0.0287**	**0.3239**	**0.1651**	**3.9000e-004**	**0.0222**	**0.0134**	**0.0356**	**9.6600e-003**	**0.0123**	**0.0220**	**0.0000**	**34.6723**	**34.6723**	**0.0112**	**0.0000**	**34.9526**

3.3 Site Preparation - 2020

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	4.0800e-003	0.1372	0.0302	3.6000e-004	7.9400e-003	4.3000e-004	8.3700e-003	2.1800e-003	4.1000e-004	2.5900e-003	0.0000	35.6101	35.6101	2.4800e-003	0.0000	35.6722
Vendor	8.6000e-004	0.0258	6.9800e-003	6.0000e-005	1.5000e-003	1.2000e-004	1.6200e-003	4.3000e-004	1.1000e-004	5.5000e-004	0.0000	5.9125	5.9125	3.8000e-004	0.0000	5.9219
Worker	6.5000e-004	5.2000e-004	5.7600e-003	2.0000e-005	1.5300e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4299	1.4299	5.0000e-005	0.0000	1.4310
Total	**5.5900e-003**	**0.1635**	**0.0430**	**4.4000e-004**	**0.0110**	**5.6000e-004**	**0.0115**	**3.0200e-003**	**5.3000e-004**	**3.5600e-003**	**0.0000**	**42.9526**	**42.9526**	**2.9100e-003**	**0.0000**	**43.0251**

3.4 Grading - 2020

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					0.1414	0.0000	0.1414	0.0687	0.0000	0.0687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0562	0.6001	0.3298	7.7000e-004		0.0261	0.0261		0.0241	0.0241	0.0000	67.3432	67.3432	0.0218	0.0000	67.8877
Total	**0.0562**	**0.6001**	**0.3298**	**7.7000e-004**	**0.1414**	**0.0261**	**0.1675**	**0.0687**	**0.0241**	**0.0927**	**0.0000**	**67.3432**	**67.3432**	**0.0218**	**0.0000**	**67.8877**

3.4 Grading - 2020

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	0.0491	1.6519	0.3641	4.3600e-003	0.0956	5.1400e-003	0.1007	0.0263	4.9200e-003	0.0312	0.0000	428.7476	428.7476	0.0299	0.0000	429.4942
Vendor	3.9900e-003	0.1192	0.0323	2.8000e-004	6.9300e-003	5.5000e-004	7.4800e-003	2.0000e-003	5.3000e-004	2.5300e-003	0.0000	27.3269	27.3269	1.7400e-003	0.0000	27.3703
Worker	1.2900e-003	1.0400e-003	0.0115	3.0000e-005	3.0700e-003	3.0000e-005	3.0900e-003	8.1000e-004	2.0000e-005	8.4000e-004	0.0000	2.8598	2.8598	9.0000e-005	0.0000	2.8620
Total	**0.0544**	**1.7721**	**0.4079**	**4.6700e-003**	**0.1056**	**5.7200e-003**	**0.1113**	**0.0291**	**5.4700e-003**	**0.0345**	**0.0000**	**458.9343**	**458.9343**	**0.0317**	**0.0000**	**459.7265**

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					0.0551	0.0000	0.0551	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0562	0.6001	0.3298	7.7000e-004		0.0261	0.0261		0.0241	0.0241	0.0000	67.3431	67.3431	0.0218	0.0000	67.8876
Total	**0.0562**	**0.6001**	**0.3298**	**7.7000e-004**	**0.0551**	**0.0261**	**0.0813**	**0.0268**	**0.0241**	**0.0508**	**0.0000**	**67.3431**	**67.3431**	**0.0218**	**0.0000**	**67.8876**

3.4 Grading - 2020

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	0.0491	1.6519	0.3641	4.3600e-003	0.0956	5.1400e-003	0.1007	0.0263	4.9200e-003	0.0312	0.0000	428.7476	428.7476	0.0299	0.0000	429.4942
Vendor	3.9900e-003	0.1192	0.0323	2.8000e-004	6.9300e-003	5.5000e-004	7.4800e-003	2.0000e-003	5.3000e-004	2.5300e-003	0.0000	27.3269	27.3269	1.7400e-003	0.0000	27.3703
Worker	1.2900e-003	1.0400e-003	0.0115	3.0000e-005	3.0700e-003	3.0000e-005	3.0900e-003	8.1000e-004	2.0000e-005	8.4000e-004	0.0000	2.8598	2.8598	9.0000e-005	0.0000	2.8620
Total	**0.0544**	**1.7721**	**0.4079**	**4.6700e-003**	**0.1056**	**5.7200e-003**	**0.1113**	**0.0291**	**5.4700e-003**	**0.0345**	**0.0000**	**458.9343**	**458.9343**	**0.0317**	**0.0000**	**459.7265**

3.5 Building Construction - 2020

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	0.0942	0.8703	0.6663	1.2000e-003		0.0455	0.0455		0.0430	0.0430	0.0000	102.6353	102.6353	0.0234	0.0000	103.2202
Total	**0.0942**	**0.8703**	**0.6663**	**1.2000e-003**		**0.0455**	**0.0455**		**0.0430**	**0.0430**	**0.0000**	**102.6353**	**102.6353**	**0.0234**	**0.0000**	**103.2202**

3.5 Building Construction - 2020

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	7.5200e-003	0.2530	0.0558	6.7000e-004	0.0723	7.9000e-004	0.0731	0.0182	7.5000e-004	0.0189	0.0000	65.6707	65.6707	4.5700e-003	0.0000	65.7850
Vendor	7.7000e-004	0.0231	6.2500e-003	5.0000e-005	1.3400e-003	1.1000e-004	1.4500e-003	3.9000e-004	1.0000e-004	4.9000e-004	0.0000	5.2915	5.2915	3.4000e-004	0.0000	5.2999
Worker	0.0279	0.0225	0.2484	6.8000e-004	0.0661	5.6000e-004	0.0667	0.0176	5.2000e-004	0.0181	0.0000	61.6385	61.6385	1.9400e-003	0.0000	61.6871
Total	**0.0362**	**0.2986**	**0.3104**	**1.4000e-003**	**0.1398**	**1.4600e-003**	**0.1413**	**0.0361**	**1.3700e-003**	**0.0375**	**0.0000**	**132.6006**	**132.6006**	**6.8500e-003**	**0.0000**	**132.7720**

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	0.0942	0.8703	0.6663	1.2000e-003		0.0455	0.0455		0.0430	0.0430	0.0000	102.6352	102.6352	0.0234	0.0000	103.2201
Total	**0.0942**	**0.8703**	**0.6663**	**1.2000e-003**		**0.0455**	**0.0455**		**0.0430**	**0.0430**	**0.0000**	**102.6352**	**102.6352**	**0.0234**	**0.0000**	**103.2201**

3.5 Building Construction - 2020

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	7.5200e-003	0.2530	0.0558	6.7000e-004	0.0723	7.9000e-004	0.0731	0.0182	7.5000e-004	0.0189	0.0000	65.6707	65.6707	4.5700e-003	0.0000	65.7850
Vendor	7.7000e-004	0.0231	6.2500e-003	5.0000e-005	1.3400e-003	1.1000e-004	1.4500e-003	3.9000e-004	1.0000e-004	4.9000e-004	0.0000	5.2915	5.2915	3.4000e-004	0.0000	5.2999
Worker	0.0279	0.0225	0.2484	6.8000e-004	0.0661	5.6000e-004	0.0667	0.0176	5.2000e-004	0.0181	0.0000	61.6385	61.6385	1.9400e-003	0.0000	61.6871
Total	**0.0362**	**0.2986**	**0.3104**	**1.4000e-003**	**0.1398**	**1.4600e-003**	**0.1413**	**0.0361**	**1.3700e-003**	**0.0375**	**0.0000**	**132.6006**	**132.6006**	**6.8500e-003**	**0.0000**	**132.7720**

3.5 Building Construction - 2021

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	0.1866	1.7428	1.4354	2.6400e-003		0.0865	0.0865		0.0819	0.0819	0.0000	226.2428	226.2428	0.0508	0.0000	227.5136
Total	**0.1866**	**1.7428**	**1.4354**	**2.6400e-003**		**0.0865**	**0.0865**		**0.0819**	**0.0819**	**0.0000**	**226.2428**	**226.2428**	**0.0508**	**0.0000**	**227.5136**

3.5 Building Construction - 2021

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	0.0158	0.5199	0.1212	1.4500e-003	0.0767	1.5600e-003	0.0783	0.0198	1.4900e-003	0.0213	0.0000	143.1592	143.1592	9.9400e-003	0.0000	143.4076
Vendor	1.4600e-003	0.0463	0.0126	1.2000e-004	2.9600e-003	9.0000e-005	3.0500e-003	8.5000e-004	9.0000e-005	9.4000e-004	0.0000	11.5730	11.5730	7.1000e-004	0.0000	11.5908
Worker	0.0572	0.0446	0.5031	1.4600e-003	0.1458	1.2000e-003	0.1470	0.0387	1.1100e-003	0.0398	0.0000	131.5507	131.5507	3.8700e-003	0.0000	131.6475
Total	**0.0745**	**0.6108**	**0.6368**	**3.0300e-003**	**0.2254**	**2.8500e-003**	**0.2283**	**0.0593**	**2.6900e-003**	**0.0620**	**0.0000**	**286.2829**	**286.2829**	**0.0145**	**0.0000**	**286.6459**

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	0.1866	1.7428	1.4354	2.6400e-003		0.0865	0.0865		0.0819	0.0819	0.0000	226.2425	226.2425	0.0508	0.0000	227.5133
Total	**0.1866**	**1.7428**	**1.4354**	**2.6400e-003**		**0.0865**	**0.0865**		**0.0819**	**0.0819**	**0.0000**	**226.2425**	**226.2425**	**0.0508**	**0.0000**	**227.5133**

3.5 Building Construction - 2021

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	0.0158	0.5199	0.1212	1.4500e-003	0.0767	1.5600e-003	0.0783	0.0198	1.4900e-003	0.0213	0.0000	143.1592	143.1592	9.9400e-003	0.0000	143.4076
Vendor	1.4600e-003	0.0463	0.0126	1.2000e-004	2.9600e-003	9.0000e-005	3.0500e-003	8.5000e-004	9.0000e-005	9.4000e-004	0.0000	11.5730	11.5730	7.1000e-004	0.0000	11.5908
Worker	0.0572	0.0446	0.5031	1.4600e-003	0.1458	1.2000e-003	0.1470	0.0387	1.1100e-003	0.0398	0.0000	131.5507	131.5507	3.8700e-003	0.0000	131.6475
Total	**0.0745**	**0.6108**	**0.6368**	**3.0300e-003**	**0.2254**	**2.8500e-003**	**0.2283**	**0.0593**	**2.6900e-003**	**0.0620**	**0.0000**	**286.2829**	**286.2829**	**0.0145**	**0.0000**	**286.6459**

3.5 Building Construction - 2022

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	0.1687	1.5563	1.4123	2.6400e-003		0.0742	0.0742		0.0703	0.0703	0.0000	226.3039	226.3039	0.0504	0.0000	227.5635
Total	**0.1687**	**1.5563**	**1.4123**	**2.6400e-003**		**0.0742**	**0.0742**		**0.0703**	**0.0703**	**0.0000**	**226.3039**	**226.3039**	**0.0504**	**0.0000**	**227.5635**

3.5 Building Construction - 2022

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	0.0151	0.4825	0.1199	1.4400e-003	0.0767	1.3500e-003	0.0781	0.0198	1.2900e-003	0.0211	0.0000	141.4568	141.4568	9.7800e-003	0.0000	141.7014
Vendor	1.3700e-003	0.0440	0.0119	1.2000e-004	2.9600e-003	8.0000e-005	3.0400e-003	8.5000e-004	8.0000e-005	9.3000e-004	0.0000	11.4714	11.4714	6.9000e-004	0.0000	11.4885
Worker	0.0537	0.0403	0.4635	1.4000e-003	0.1458	1.1600e-003	0.1469	0.0387	1.0700e-003	0.0398	0.0000	126.9264	126.9264	3.5000e-003	0.0000	127.0138
Total	**0.0701**	**0.5668**	**0.5953**	**2.9600e-003**	**0.2254**	**2.5900e-003**	**0.2280**	**0.0593**	**2.4400e-003**	**0.0618**	**0.0000**	**279.8546**	**279.8546**	**0.0140**	**0.0000**	**280.2037**

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	0.1687	1.5563	1.4123	2.6400e-003		0.0742	0.0742		0.0703	0.0703	0.0000	226.3036	226.3036	0.0504	0.0000	227.5633
Total	**0.1687**	**1.5563**	**1.4123**	**2.6400e-003**		**0.0742**	**0.0742**		**0.0703**	**0.0703**	**0.0000**	**226.3036**	**226.3036**	**0.0504**	**0.0000**	**227.5633**

3.5 Building Construction - 2022

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	0.0151	0.4825	0.1199	1.4400e-003	0.0767	1.3500e-003	0.0781	0.0198	1.2900e-003	0.0211	0.0000	141.4568	141.4568	9.7800e-003	0.0000	141.7014
Vendor	1.3700e-003	0.0440	0.0119	1.2000e-004	2.9600e-003	8.0000e-005	3.0400e-003	8.5000e-004	8.0000e-005	9.3000e-004	0.0000	11.4714	11.4714	6.9000e-004	0.0000	11.4885
Worker	0.0537	0.0403	0.4635	1.4000e-003	0.1458	1.1600e-003	0.1469	0.0387	1.0700e-003	0.0398	0.0000	126.9264	126.9264	3.5000e-003	0.0000	127.0138
Total	**0.0701**	**0.5668**	**0.5953**	**2.9600e-003**	**0.2254**	**2.5900e-003**	**0.2280**	**0.0593**	**2.4400e-003**	**0.0618**	**0.0000**	**279.8546**	**279.8546**	**0.0140**	**0.0000**	**280.2037**

3.5 Building Construction - 2023

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	0.0590	0.5412	0.5272	1.0000e-003		0.0246	0.0246		0.0233	0.0233	0.0000	85.3333	85.3333	0.0188	0.0000	85.8039
Total	**0.0590**	**0.5412**	**0.5272**	**1.0000e-003**		**0.0246**	**0.0246**		**0.0233**	**0.0233**	**0.0000**	**85.3333**	**85.3333**	**0.0188**	**0.0000**	**85.8039**

3.5 Building Construction - 2023

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	3.7200e-003	0.1194	0.0410	5.2000e-004	0.0717	2.1000e-004	0.0719	0.0180	2.0000e-004	0.0182	0.0000	51.1078	51.1078	3.4200e-003	0.0000	51.1934
Vendor	3.8000e-004	0.0125	4.0200e-003	4.0000e-005	1.1100e-003	1.0000e-005	1.1300e-003	3.2000e-004	1.0000e-005	3.4000e-004	0.0000	4.1893	4.1893	2.3000e-004	0.0000	4.1950
Worker	0.0190	0.0137	0.1607	5.1000e-004	0.0550	4.3000e-004	0.0554	0.0146	3.9000e-004	0.0150	0.0000	46.0999	46.0999	1.1900e-003	0.0000	46.1295
Total	**0.0231**	**0.1456**	**0.2057**	**1.0700e-003**	**0.1278**	**6.5000e-004**	**0.1284**	**0.0329**	**6.0000e-004**	**0.0335**	**0.0000**	**101.3969**	**101.3969**	**4.8400e-003**	**0.0000**	**101.5179**

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	0.0590	0.5412	0.5272	1.0000e-003		0.0246	0.0246		0.0233	0.0233	0.0000	85.3332	85.3332	0.0188	0.0000	85.8038
Total	**0.0590**	**0.5412**	**0.5272**	**1.0000e-003**		**0.0246**	**0.0246**		**0.0233**	**0.0233**	**0.0000**	**85.3332**	**85.3332**	**0.0188**	**0.0000**	**85.8038**

3.5 Building Construction - 2023

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	3.7200e-003	0.1194	0.0410	5.2000e-004	0.0717	2.1000e-004	0.0719	0.0180	2.0000e-004	0.0182	0.0000	51.1078	51.1078	3.4200e-003	0.0000	51.1934
Vendor	3.8000e-004	0.0125	4.0200e-003	4.0000e-005	1.1100e-003	1.0000e-005	1.1300e-003	3.2000e-004	1.0000e-005	3.4000e-004	0.0000	4.1893	4.1893	2.3000e-004	0.0000	4.1950
Worker	0.0190	0.0137	0.1607	5.1000e-004	0.0550	4.3000e-004	0.0554	0.0146	3.9000e-004	0.0150	0.0000	46.0999	46.0999	1.1900e-003	0.0000	46.1295
Total	**0.0231**	**0.1456**	**0.2057**	**1.0700e-003**	**0.1278**	**6.5000e-004**	**0.1284**	**0.0329**	**6.0000e-004**	**0.0335**	**0.0000**	**101.3969**	**101.3969**	**4.8400e-003**	**0.0000**	**101.5179**

3.6 Paving - 2023

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	3.7900e-003	0.0367	0.0514	8.0000e-005		1.8200e-003	1.8200e-003		1.6800e-003	1.6800e-003	0.0000	6.9086	6.9086	2.1900e-003	0.0000	6.9634
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.7900e-003**	**0.0367**	**0.0514**	**8.0000e-005**		**1.8200e-003**	**1.8200e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**6.9086**	**6.9086**	**2.1900e-003**	**0.0000**	**6.9634**

3.6 Paving - 2023

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	6.0000e-005	2.0200e-003	6.9000e-004	1.0000e-005	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.8662	0.8662	6.0000e-005	0.0000	0.8677
Vendor	1.0000e-005	4.3000e-004	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1420	0.1420	1.0000e-005	0.0000	0.1422
Worker	2.3000e-004	1.6000e-004	1.9200e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5515	0.5515	1.0000e-005	0.0000	0.5519
Total	**3.0000e-004**	**2.6100e-003**	**2.7500e-003**	**2.0000e-005**	**9.1000e-004**	**1.0000e-005**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**1.5598**	**1.5598**	**8.0000e-005**	**0.0000**	**1.5618**

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	3.7900e-003	0.0367	0.0514	8.0000e-005		1.8200e-003	1.8200e-003		1.6800e-003	1.6800e-003	0.0000	6.9086	6.9086	2.1900e-003	0.0000	6.9634
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.7900e-003**	**0.0367**	**0.0514**	**8.0000e-005**		**1.8200e-003**	**1.8200e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**6.9086**	**6.9086**	**2.1900e-003**	**0.0000**	**6.9634**

3.6 Paving - 2023

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	6.0000e-005	2.0200e-003	6.9000e-004	1.0000e-005	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.8662	0.8662	6.0000e-005	0.0000	0.8677
Vendor	1.0000e-005	4.3000e-004	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1420	0.1420	1.0000e-005	0.0000	0.1422
Worker	2.3000e-004	1.6000e-004	1.9200e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5515	0.5515	1.0000e-005	0.0000	0.5519
Total	**3.0000e-004**	**2.6100e-003**	**2.7500e-003**	**2.0000e-005**	**9.1000e-004**	**1.0000e-005**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**1.5598**	**1.5598**	**8.0000e-005**	**0.0000**	**1.5618**

3.7 Architectural Coating - 2023

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					
Archit. Coating	1.4326					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0156	0.0217	4.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	3.0639	3.0639	1.8000e-004	0.0000	3.0685
Total	**1.4349**	**0.0156**	**0.0217**	**4.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**3.0639**	**3.0639**	**1.8000e-004**	**0.0000**	**3.0685**

3.7 Architectural Coating - 2023

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	5.0000e-005	1.5200e-003	5.2000e-004	1.0000e-005	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.6497	0.6497	4.0000e-005	0.0000	0.6508
Vendor	2.0000e-005	6.4000e-004	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2130	0.2130	1.0000e-005	0.0000	0.2133
Worker	1.7000e-004	1.2000e-004	1.4400e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4137	0.4137	1.0000e-005	0.0000	0.4139
Total	**2.4000e-004**	**2.2800e-003**	**2.1600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**1.2763**	**1.2763**	**6.0000e-005**	**0.0000**	**1.2780**

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					
Archit. Coating	1.4326					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0156	0.0217	4.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	3.0639	3.0639	1.8000e-004	0.0000	3.0685
Total	**1.4349**	**0.0156**	**0.0217**	**4.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**3.0639**	**3.0639**	**1.8000e-004**	**0.0000**	**3.0685**

3.7 Architectural Coating - 2023

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	5.0000e-005	1.5200e-003	5.2000e-004	1.0000e-005	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.6497	0.6497	4.0000e-005	0.0000	0.6508
Vendor	2.0000e-005	6.4000e-004	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2130	0.2130	1.0000e-005	0.0000	0.2133
Worker	1.7000e-004	1.2000e-004	1.4400e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4137	0.4137	1.0000e-005	0.0000	0.4139
Total	**2.4000e-004**	**2.2800e-003**	**2.1600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**1.2763**	**1.2763**	**6.0000e-005**	**0.0000**	**1.2780**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345
Unmitigated	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,116.80	2,116.80	2116.80	7,233,427	7,233,427
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	614.00	614.00	614.00	836,778	836,778
Pharmacy/Drugstore with Drive Thru	784.00	784.00	784.00	1,041,658	1,041,658
Total	3,514.80	3,514.80	3,514.80	9,111,863	9,111,863

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Pharmacy/Drugstore with Drive	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Pharmacy/Drugstore with Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	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	1,072.1664	1,072.1664	0.0417	4.8100e-003	1,074.6409
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,080.7162	1,080.7162	0.0420	4.8500e-003	1,083.2104
NaturalGas Mitigated	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	352.8209	352.8209	6.7600e-003	6.4700e-003	354.9175
NaturalGas Unmitigated	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	352.8209	352.8209	6.7600e-003	6.4700e-003	354.9175

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					
Apartments Mid Rise	4.74257e+006	0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	253.0818	253.0818	4.8500e-003	4.6400e-003	254.5857
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Pharmacy/Drugstore with Drive Thru	22960	1.2000e-004	1.1300e-003	9.5000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2252	1.2252	2.0000e-005	2.0000e-005	1.2325
Total		**0.0356**	**0.3102**	**0.1700**	**1.9400e-003**		**0.0246**	**0.0246**		**0.0246**	**0.0246**	**0.0000**	**352.8209**	**352.8209**	**6.7600e-003**	**6.4700e-003**	**354.9175**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	4.74257e+006	0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	253.0818	253.0818	4.8500e-003	4.6400e-003	254.5857
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Pharmacy/Drugstore with Drive Thru	22960	1.2000e-004	1.1300e-003	9.5000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2252	1.2252	2.0000e-005	2.0000e-005	1.2325
Total		**0.0356**	**0.3102**	**0.1700**	**1.9400e-003**		**0.0246**	**0.0246**		**0.0246**	**0.0246**	**0.0000**	**352.8209**	**352.8209**	**6.7600e-003**	**6.4700e-003**	**354.9175**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.75117e+006	531.3978	0.0207	2.3800e-003	532.6242
Enclosed Parking with Elevator	1.2681e+006	384.8103	0.0150	1.7300e-003	385.6985
High Turnover (Sit Down Restaurant)	353120	107.1554	4.1600e-003	4.8000e-004	107.4027
Pharmacy/Drugstore with Drive Thru	189000	57.3527	2.2300e-003	2.6000e-004	57.4850
Total		**1,080.7162**	**0.0420**	**4.8500e-003**	**1,083.2104**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.72299e+006	522.8479	0.0203	2.3400e-003	524.0546
Enclosed Parking with Elevator	1.2681e+006	384.8103	0.0150	1.7300e-003	385.6985
High Turnover (Sit Down Restaurant)	353120	107.1554	4.1600e-003	4.8000e-004	107.4027
Pharmacy/Drugstore with Drive Thru	189000	57.3527	2.2300e-003	2.6000e-004	57.4850
Total		**1,072.1664**	**0.0417**	**4.8100e-003**	**1,074.6409**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186
Unmitigated	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186

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	0.1433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6545					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3000e-004	3.6500e-003	1.5500e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2264	4.2264	8.0000e-005	8.0000e-005	4.2515
Landscaping	0.1349	0.0514	4.4633	2.4000e-004		0.0247	0.0247		0.0247	0.0247	0.0000	7.2913	7.2913	7.0300e-003	0.0000	7.4671
Total	**1.9331**	**0.0551**	**4.4648**	**2.6000e-004**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**11.5177**	**11.5177**	**7.1100e-003**	**8.0000e-005**	**11.7186**

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	0.1433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6545					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3000e-004	3.6500e-003	1.5500e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2264	4.2264	8.0000e-005	8.0000e-005	4.2515
Landscaping	0.1349	0.0514	4.4633	2.4000e-004		0.0247	0.0247		0.0247	0.0247	0.0000	7.2913	7.2913	7.0300e-003	0.0000	7.4671
Total	**1.9331**	**0.0551**	**4.4648**	**2.6000e-004**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**11.5177**	**11.5177**	**7.1100e-003**	**8.0000e-005**	**11.7186**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	170.1591	0.8290	0.0202	196.8908
Unmitigated	197.1029	1.0357	0.0251	230.4816

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.1465 / 17.7446	179.9674	0.9238	0.0224	209.7446
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	2.42827 / 0.154996	10.8877	0.0795	1.9100e-003	13.4459
Pharmacy/Drugstore with Drive Thru	0.986265 / 0.604485	6.2478	0.0324	7.9000e-004	7.2911
Total		**197.1029**	**1.0357**	**0.0251**	**230.4816**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	22.5172 / 17.7446	155.9386	0.7395	0.0180	179.7879
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.94262 / 0.154996	8.8146	0.0636	1.5300e-003	10.8615
Pharmacy/Drugstore with Drive Thru	0.789012 / 0.604485	5.4059	0.0259	6.3000e-004	6.2414
Total		**170.1591**	**0.8290**	**0.0202**	**196.8908**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.3702	0.9675	0.0000	40.5564
Unmitigated	68.2090	4.0310	0.0000	168.9850

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	198.72	40.3384	2.3839	0.0000	99.9366
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	95.2	19.3247	1.1421	0.0000	47.8762
Pharmacy/Drugstore with Drive Thru	42.1	8.5459	0.5051	0.0000	21.1722
Total		**68.2090**	**4.0310**	**0.0000**	**168.9850**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.6928	9.6812	0.5721	0.0000	23.9848
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	22.848	4.6379	0.2741	0.0000	11.4903
Pharmacy/Drugstore with Drive Thru	10.104	2.0510	0.1212	0.0000	5.0813
Total		**16.3702**	**0.9674**	**0.0000**	**40.5564**

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

7940 Lankershim Boulevard - with PDFs

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	14.00	1000sqft	0.00	14,000.00	0
Enclosed Parking with Elevator	541.00	Space	0.00	216,400.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.00	8,000.00	0
Apartments Mid Rise	432.00	Dwelling Unit	4.69	432,000.00	1236

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	669	**CH4 Intensity (lb/MWhr)**	0.026	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Accounts for RPS for LADWP

Land Use - 4.69-acre site; 541 parking spaces associated with proposed project parking structure

Construction Phase - Construction to occur 6 days/week

Off-road Equipment - Architectural coating equip

Off-road Equipment - Building equip

Off-road Equipment - Demolition equip

Off-road Equipment - Grading equip

Off-road Equipment - Paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Anticipated construction vehicle trips

Demolition - Based on 7 daily haul truck trips over 40 days, and assuming building debris density is 1,620 lbs/cyd

Grading - 89,000 cy of soil export

Architectural Coating - Use of super-complaint coatings

Vehicle Trips - Accounts for less trips from walk-in/transit reduction, internal apture, and pass-by reductions

Woodstoves - Accounts for outdoor courtyard fireplaces (2) and firepits (2); Assumes these outdoor amenites would be used 30% of the year.

Area Coating - SCAQMD Rule 1113 compliance

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403; use of tier 4 off-road equipment

Energy Mitigation - Use of Energy Star appliances

Water Mitigation - CALGreen

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	40.00
tblApplianceMitigation	PercentImprovement	15.00	9.00

tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	10.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDaysWeek	5.00	6.00
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	110.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	367.20	4.00
tblFireplaces	NumberNoFireplace	43.20	428.00
tblFireplaces	NumberWood	21.60	0.00
tblGrading	MaterialExported	0.00	89,000.00

tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	4.87	0.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	11.37	4.69
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	1227.89	669

tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	359.00	280.00
tblTripsAndVMT	HaulingTripNumber	0.00	924.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,632.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
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tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	55.00
tblTripsAndVMT	VendorTripNumber	85.00	3.00
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tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
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tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	410.00	85.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	82.00	5.00
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	158.37	76.75
tblVehicleTrips	ST_TR	96.91	56.00
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	131.84	76.75
tblVehicleTrips	SU_TR	96.91	56.00
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	127.15	76.75
tblVehicleTrips	WD_TR	96.91	56.00

tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2019	3.4528	36.5366	19.9983	0.0432	2.2177	1.6848	3.9025	0.3687	1.5642	1.9328	0.0000	4,318.8972	4,318.8972	1.0452	0.0000	4,345.0262
2020	5.4984	115.8738	36.3588	0.2739	12.4406	1.5913	14.0319	4.9101	1.4744	6.3844	0.0000	29,202.7731	29,202.7731	2.9188	0.0000	29,275.7423
2021	1.6658	14.8964	13.4261	0.0367	1.4696	0.5710	2.0406	0.3863	0.5402	0.9265	0.0000	3,659.7003	3,659.7003	0.4604	0.0000	3,671.2090
2022	1.5230	13.4379	13.0022	0.0363	1.4696	0.4909	1.9605	0.3863	0.4646	0.8509	0.0000	3,613.3498	3,613.3498	0.4533	0.0000	3,624.6812
2023	35.4744	11.5606	12.5906	0.0355	2.2118	0.4282	2.6400	0.5685	0.4051	0.9736	0.0000	3,535.0628	3,535.0628	0.4473	0.0000	3,546.1203
Maximum	**35.4744**	**115.8738**	**36.3588**	**0.2739**	**12.4406**	**1.6848**	**14.0319**	**4.9101**	**1.5642**	**6.3844**	**0.0000**	**29,202.7731**	**29,202.7731**	**2.9188**	**0.0000**	**29,275.7423**

2.1 Overall Construction (Maximum Daily Emission)

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					
2019	0.5617	4.3705	21.0068	0.0432	1.0331	0.0677	1.1008	0.1893	0.0672	0.2565	0.0000	4,318.8972	4,318.8972	1.0452	0.0000	4,345.0262
2020	3.1592	87.9041	38.8340	0.2739	8.1284	0.3467	8.4752	2.8152	0.3344	3.1496	0.0000	29,202.7731	29,202.7731	2.9188	0.0000	29,275.7423
2021	0.6787	5.2604	14.2319	0.0367	1.4696	0.0433	1.5129	0.3863	0.0423	0.4286	0.0000	3,659.7003	3,659.7003	0.4604	0.0000	3,671.2090
2022	0.6503	4.9932	13.9552	0.0363	1.4696	0.0417	1.5113	0.3863	0.0407	0.4270	0.0000	3,613.3498	3,613.3498	0.4533	0.0000	3,624.6812
2023	34.8274	3.8873	13.6333	0.0355	2.2118	0.0392	2.2480	0.5685	0.0390	0.6040	0.0000	3,535.0628	3,535.0628	0.4473	0.0000	3,546.1203
Maximum	**34.8274**	**87.9041**	**38.8340**	**0.2739**	**8.1284**	**0.3467**	**8.4752**	**2.8152**	**0.3344**	**3.1496**	**0.0000**	**29,202.7731**	**29,202.7731**	**2.9188**	**0.0000**	**29,275.7423**

	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	N20	CO2e
Percent Reduction	**16.25**	**44.66**	**-6.59**	**0.00**	**27.75**	**88.70**	**39.58**	**34.35**	**88.23**	**56.04**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309
Total	**16.2989**	**23.0729**	**100.0628**	**0.2471**	**19.3757**	**0.5106**	**19.8863**	**5.1851**	**0.4985**	**5.6835**	**0.0000**	**26,139.4703**	**26,139.4703**	**1.2655**	**0.0406**	**26,183.2127**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309
Total	**16.2989**	**23.0729**	**100.0628**	**0.2471**	**19.3757**	**0.5106**	**19.8863**	**5.1851**	**0.4985**	**5.6835**	**0.0000**	**26,139.4703**	**26,139.4703**	**1.2655**	**0.0406**	**26,183.2127**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10/1/2019	11/15/2019	6	40	
2	Site Preparation	Site Preparation	5/1/2020	6/2/2020	6	28	
3	Grading	Grading	6/3/2020	7/18/2020	6	40	
4	Building Construction	Building Construction	7/19/2020	5/18/2023	6	886	
5	Paving	Paving	5/19/2023	6/1/2023	6	12	
6	Architectural Coating	Architectural Coating	5/19/2023	6/8/2023	6	18	

Acres of Grading (Site Preparation Phase): 28

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 874,800; Residential Outdoor: 291,600; Non-Residential Indoor: 33,000; Non-Residential Outdoor: 11,000; Striped Parking Area: 12,984 (Architectural Coating – sqft)

OffRoad Equipment

7940 Lankershim Boulevard - with PDFs - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Off-Highway Trucks	1	2.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Scrapers	1	4.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	2	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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	6	12.00	3.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	10.00	17.00	924.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	14.00	55.00	11,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	85.00	3.00	10,632.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	1.00	24.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	1.00	18.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 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					1.9420	0.0000	1.9420	0.2940	0.0000	0.2940			0.0000			0.0000
Off-Road	3.3146	34.0014	18.8705	0.0354		1.6736	1.6736		1.5535	1.5535		3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**3.3146**	**34.0014**	**18.8705**	**0.0354**	**1.9420**	**1.6736**	**3.6155**	**0.2940**	**1.5535**	**1.8475**		**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0658	2.1440	0.4571	5.5900e-003	0.1224	7.8700e-003	0.1303	0.0336	7.5300e-003	0.0411		605.1582	605.1582	0.0417		606.2001
Vendor	0.0125	0.3472	0.0921	7.8000e-004	0.0192	2.2100e-003	0.0214	5.5300e-003	2.1200e-003	7.6500e-003		83.6444	83.6444	5.3600e-003		83.7784
Worker	0.0600	0.0441	0.5786	1.4600e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		145.5544	145.5544	5.0000e-003		145.6793
Total	**0.1382**	**2.5352**	**1.1278**	**7.8300e-003**	**0.2757**	**0.0112**	**0.2870**	**0.0747**	**0.0107**	**0.0854**		**834.3570**	**834.3570**	**0.0520**		**835.6579**

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					0.7574	0.0000	0.7574	0.1147	0.0000	0.1147			0.0000			0.0000
Off-Road	0.4235	1.8352	19.8790	0.0354		0.0565	0.0565		0.0565	0.0565	0.0000	3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**0.4235**	**1.8352**	**19.8790**	**0.0354**	**0.7574**	**0.0565**	**0.8138**	**0.1147**	**0.0565**	**0.1711**	**0.0000**	**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0658	2.1440	0.4571	5.5900e-003	0.1224	7.8700e-003	0.1303	0.0336	7.5300e-003	0.0411		605.1582	605.1582	0.0417		606.2001
Vendor	0.0125	0.3472	0.0921	7.8000e-004	0.0192	2.2100e-003	0.0214	5.5300e-003	2.1200e-003	7.6500e-003		83.6444	83.6444	5.3600e-003		83.7784
Worker	0.0600	0.0441	0.5786	1.4600e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		145.5544	145.5544	5.0000e-003		145.6793
Total	**0.1382**	**2.5352**	**1.1278**	**7.8300e-003**	**0.2757**	**0.0112**	**0.2870**	**0.0747**	**0.0107**	**0.0854**		**834.3570**	**834.3570**	**0.0520**		**835.6579**

3.3 Site Preparation - 2020

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					4.0715	0.0000	4.0715	1.7696	0.0000	1.7696			0.0000			0.0000
Off-Road	2.0531	23.1342	11.7943	0.0282		0.9572	0.9572		0.8806	0.8806		2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**2.0531**	**23.1342**	**11.7943**	**0.0282**	**4.0715**	**0.9572**	**5.0287**	**1.7696**	**0.8806**	**2.6502**		**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2883	9.4888	2.1026	0.0261	0.5770	0.0303	0.6073	0.1582	0.0290	0.1871		2,824.2450	2,824.2450	0.1922		2,829.0509
Vendor	0.0605	1.8083	0.4738	4.4100e-003	0.1088	8.5100e-003	0.1174	0.0313	8.1400e-003	0.0395		470.9420	470.9420	0.0287		471.6604
Worker	0.0460	0.0327	0.4378	1.1800e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		117.6113	117.6113	3.7100e-003		117.7040
Total	**0.3947**	**11.3299**	**3.0143**	**0.0317**	**0.7976**	**0.0397**	**0.8373**	**0.2191**	**0.0380**	**0.2571**		**3,412.7983**	**3,412.7983**	**0.2247**		**3,418.4153**

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					1.5879	0.0000	1.5879	0.6902	0.0000	0.6902			0.0000			0.0000
Off-Road	0.3454	1.4968	13.6150	0.0282		0.0461	0.0461		0.0461	0.0461	0.0000	2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**0.3454**	**1.4968**	**13.6150**	**0.0282**	**1.5879**	**0.0461**	**1.6340**	**0.6902**	**0.0461**	**0.7362**	**0.0000**	**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2883	9.4888	2.1026	0.0261	0.5770	0.0303	0.6073	0.1582	0.0290	0.1871		2,824.2450	2,824.2450	0.1922		2,829.0509
Vendor	0.0605	1.8083	0.4738	4.4100e-003	0.1088	8.5100e-003	0.1174	0.0313	8.1400e-003	0.0395		470.9420	470.9420	0.0287		471.6604
Worker	0.0460	0.0327	0.4378	1.1800e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		117.6113	117.6113	3.7100e-003		117.7040
Total	**0.3947**	**11.3299**	**3.0143**	**0.0317**	**0.7976**	**0.0397**	**0.8373**	**0.2191**	**0.0380**	**0.2571**		**3,412.7983**	**3,412.7983**	**0.2247**		**3,418.4153**

3.4 Grading - 2020

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					7.0691	0.0000	7.0691	3.4342	0.0000	3.4342			0.0000			0.0000
Off-Road	2.8090	30.0053	16.4918	0.0383		1.3072	1.3072		1.2026	1.2026		3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**2.8090**	**30.0053**	**16.4918**	**0.0383**	**7.0691**	**1.3072**	**8.3763**	**3.4342**	**1.2026**	**4.6368**		**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4294	79.9723	17.7211	0.2197	4.8629	0.2552	5.1181	1.3330	0.2442	1.5772		23,802.8224	23,802.8224	1.6202		23,843.3267
Vendor	0.1956	5.8505	1.5329	0.0143	0.3521	0.0275	0.3797	0.1014	0.0263	0.1277		1,523.6358	1,523.6358	0.0930		1,525.9603
Worker	0.0644	0.0458	0.6130	1.6500e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		164.6558	164.6558	5.1900e-003		164.7856
Total	**2.6895**	**85.8686**	**19.8670**	**0.2356**	**5.3715**	**0.2841**	**5.6556**	**1.4759**	**0.2717**	**1.7476**		**25,491.1140**	**25,491.1140**	**1.7183**		**25,534.0725**

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					2.7569	0.0000	2.7569	1.3393	0.0000	1.3393			0.0000			0.0000
Off-Road	0.4697	2.0355	18.9670	0.0383		0.0626	0.0626		0.0626	0.0626	0.0000	3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**0.4697**	**2.0355**	**18.9670**	**0.0383**	**2.7569**	**0.0626**	**2.8196**	**1.3393**	**0.0626**	**1.4020**	**0.0000**	**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4294	79.9723	17.7211	0.2197	4.8629	0.2552	5.1181	1.3330	0.2442	1.5772		23,802.8224	23,802.8224	1.6202		23,843.3267
Vendor	0.1956	5.8505	1.5329	0.0143	0.3521	0.0275	0.3797	0.1014	0.0263	0.1277		1,523.6358	1,523.6358	0.0930		1,525.9603
Worker	0.0644	0.0458	0.6130	1.6500e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		164.6558	164.6558	5.1900e-003		164.7856
Total	**2.6895**	**85.8686**	**19.8670**	**0.2356**	**5.3715**	**0.2841**	**5.6556**	**1.4759**	**0.2717**	**1.7476**		**25,491.1140**	**25,491.1140**	**1.7183**		**25,534.0725**

3.5 Building Construction - 2020

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	1.3268	12.2573	9.3847	0.0169		0.6402	0.6402		0.6060	0.6060		1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**1.3268**	**12.2573**	**9.3847**	**0.0169**		**0.6402**	**0.6402**		**0.6060**	**0.6060**		**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1048	3.4505	0.7646	9.4800e-003	1.0411	0.0110	1.0521	0.2616	0.0105	0.2721		1,026.9982	1,026.9982	0.0699		1,028.7458
Vendor	0.0107	0.3191	0.0836	7.8000e-004	0.0192	1.5000e-003	0.0207	5.5300e-003	1.4400e-003	6.9700e-003		83.1074	83.1074	5.0700e-003		83.2342
Worker	0.3912	0.2783	3.7217	0.0100	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		999.6959	999.6959	0.0315		1,000.4839
Total	**0.5067**	**4.0479**	**4.5699**	**0.0203**	**2.0104**	**0.0205**	**2.0308**	**0.5191**	**0.0193**	**0.5383**		**2,109.8015**	**2,109.8015**	**0.1065**		**2,112.4639**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1048	3.4505	0.7646	9.4800e-003	1.0411	0.0110	1.0521	0.2616	0.0105	0.2721		1,026.9982	1,026.9982	0.0699		1,028.7458
Vendor	0.0107	0.3191	0.0836	7.8000e-004	0.0192	1.5000e-003	0.0207	5.5300e-003	1.4400e-003	6.9700e-003		83.1074	83.1074	5.0700e-003		83.2342
Worker	0.3912	0.2783	3.7217	0.0100	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		999.6959	999.6959	0.0315		1,000.4839
Total	**0.5067**	**4.0479**	**4.5699**	**0.0203**	**2.0104**	**0.0205**	**2.0308**	**0.5191**	**0.0193**	**0.5383**		**2,109.8015**	**2,109.8015**	**0.1065**		**2,112.4639**

3.5 Building Construction - 2021

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	1.1922	11.1358	9.1716	0.0169		0.5528	0.5528		0.5231	0.5231		1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**1.1922**	**11.1358**	**9.1716**	**0.0169**		**0.5528**	**0.5528**		**0.5231**	**0.5231**		**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1001	3.2189	0.7548	9.3600e-003	0.5003	9.8800e-003	0.5102	0.1288	9.4500e-003	0.1383		1,015.7355	1,015.7355	0.0689		1,017.4588
Vendor	9.1200e-003	0.2913	0.0762	7.7000e-004	0.0192	6.0000e-004	0.0198	5.5300e-003	5.7000e-004	6.1000e-003		82.4642	82.4642	4.8600e-003		82.5856
Worker	0.3644	0.2504	3.4236	9.7200e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		967.9544	967.9544	0.0285		968.6674
Total	**0.4735**	**3.7606**	**4.2545**	**0.0199**	**1.4696**	**0.0182**	**1.4877**	**0.3863**	**0.0171**	**0.4034**		**2,066.1541**	**2,066.1541**	**0.1023**		**2,068.7118**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1001	3.2189	0.7548	9.3600e-003	0.5003	9.8800e-003	0.5102	0.1288	9.4500e-003	0.1383		1,015.7355	1,015.7355	0.0689		1,017.4588
Vendor	9.1200e-003	0.2913	0.0762	7.7000e-004	0.0192	6.0000e-004	0.0198	5.5300e-003	5.7000e-004	6.1000e-003		82.4642	82.4642	4.8600e-003		82.5856
Worker	0.3644	0.2504	3.4236	9.7200e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		967.9544	967.9544	0.0285		968.6674
Total	**0.4735**	**3.7606**	**4.2545**	**0.0199**	**1.4696**	**0.0182**	**1.4877**	**0.3863**	**0.0171**	**0.4034**		**2,066.1541**	**2,066.1541**	**0.1023**		**2,068.7118**

3.5 Building Construction - 2022

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	1.0779	9.9445	9.0244	0.0169		0.4744	0.4744		0.4491	0.4491		1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**1.0779**	**9.9445**	**9.0244**	**0.0169**		**0.4744**	**0.4744**		**0.4491**	**0.4491**		**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0952	2.9902	0.7471	9.2400e-003	0.5003	8.5800e-003	0.5089	0.1288	8.2100e-003	0.1370		1,003.7220	1,003.7220	0.0679		1,005.4194
Vendor	8.5600e-003	0.2770	0.0720	7.6000e-004	0.0192	5.2000e-004	0.0197	5.5300e-003	5.0000e-004	6.0300e-003		81.7458	81.7458	4.6900e-003		81.8630
Worker	0.3413	0.2262	3.1586	9.3700e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		933.9055	933.9055	0.0258		934.5499
Total	**0.4451**	**3.4935**	**3.9777**	**0.0194**	**1.4696**	**0.0165**	**1.4861**	**0.3863**	**0.0156**	**0.4019**		**2,019.3732**	**2,019.3732**	**0.0984**		**2,021.8323**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0952	2.9902	0.7471	9.2400e-003	0.5003	8.5800e-003	0.5089	0.1288	8.2100e-003	0.1370		1,003.7220	1,003.7220	0.0679		1,005.4194
Vendor	8.5600e-003	0.2770	0.0720	7.6000e-004	0.0192	5.2000e-004	0.0197	5.5300e-003	5.0000e-004	6.0300e-003		81.7458	81.7458	4.6900e-003		81.8630
Worker	0.3413	0.2262	3.1586	9.3700e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		933.9055	933.9055	0.0258		934.5499
Total	**0.4451**	**3.4935**	**3.9777**	**0.0194**	**1.4696**	**0.0165**	**1.4861**	**0.3863**	**0.0156**	**0.4019**		**2,019.3732**	**2,019.3732**	**0.0984**		**2,021.8323**

3.5 Building Construction - 2023

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	0.9999	9.1731	8.9348	0.0169		0.4172	0.4172		0.3948	0.3948		1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.9999**	**9.1731**	**8.9348**	**0.0169**		**0.4172**	**0.4172**		**0.3948**	**0.3948**		**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0625	1.9727	0.6820	8.8300e-003	1.2424	3.5700e-003	1.2460	0.3110	3.4200e-003	0.3144		961.8778	961.8778	0.0632		963.4576
Vendor	6.3500e-003	0.2102	0.0651	7.4000e-004	0.0192	2.4000e-004	0.0195	5.5300e-003	2.3000e-004	5.7600e-003		79.1722	79.1722	4.1600e-003		79.2762
Worker	0.3205	0.2047	2.9088	9.0300e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		899.7097	899.7097	0.0232		900.2907
Total	**0.3893**	**2.3875**	**3.6558**	**0.0186**	**2.2118**	**0.0110**	**2.2228**	**0.5685**	**0.0103**	**0.5788**		**1,940.7597**	**1,940.7597**	**0.0906**		**1,943.0245**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0625	1.9727	0.6820	8.8300e-003	1.2424	3.5700e-003	1.2460	0.3110	3.4200e-003	0.3144		961.8778	961.8778	0.0632		963.4576
Vendor	6.3500e-003	0.2102	0.0651	7.4000e-004	0.0192	2.4000e-004	0.0195	5.5300e-003	2.3000e-004	5.7600e-003		79.1722	79.1722	4.1600e-003		79.2762
Worker	0.3205	0.2047	2.9088	9.0300e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		899.7097	899.7097	0.0232		900.2907
Total	**0.3893**	**2.3875**	**3.6558**	**0.0186**	**2.2118**	**0.0110**	**2.2228**	**0.5685**	**0.0103**	**0.5788**		**1,940.7597**	**1,940.7597**	**0.0906**		**1,943.0245**

3.6 Paving - 2023

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	0.6313	6.1230	8.5577	0.0133		0.3032	0.3032		0.2798	0.2798		1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6313**	**6.1230**	**8.5577**	**0.0133**		**0.3032**	**0.3032**		**0.2798**	**0.2798**		**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0104	0.3288	0.1137	1.4700e-003	0.0350	6.0000e-004	0.0356	9.5900e-003	5.7000e-004	0.0102		160.3130	160.3130	0.0105		160.5763
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0377	0.0241	0.3422	1.0600e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		105.8482	105.8482	2.7300e-003		105.9166
Total	**0.0502**	**0.4229**	**0.4776**	**2.7800e-003**	**0.1532**	**1.5300e-003**	**0.1547**	**0.0411**	**1.4300e-003**	**0.0425**		**292.5519**	**292.5519**	**0.0147**		**292.9182**

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	0.2002	0.9528	9.8604	0.0133		0.0316	0.0316		0.0316	0.0316	0.0000	1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2002**	**0.9528**	**9.8604**	**0.0133**		**0.0316**	**0.0316**		**0.0316**	**0.0316**	**0.0000**	**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0104	0.3288	0.1137	1.4700e-003	0.0350	6.0000e-004	0.0356	9.5900e-003	5.7000e-004	0.0102		160.3130	160.3130	0.0105		160.5763
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0377	0.0241	0.3422	1.0600e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		105.8482	105.8482	2.7300e-003		105.9166
Total	**0.0502**	**0.4229**	**0.4776**	**2.7800e-003**	**0.1532**	**1.5300e-003**	**0.1547**	**0.0411**	**1.4300e-003**	**0.0425**		**292.5519**	**292.5519**	**0.0147**		**292.9182**

3.7 Architectural Coating - 2023

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					
Archit. Coating	34.5112					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	**34.7667**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**		**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.2000e-003	0.1644	0.0568	7.4000e-004	0.0175	3.0000e-004	0.0178	4.7900e-003	2.8000e-004	5.0800e-003		80.1565	80.1565	5.2700e-003		80.2881
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0189	0.0120	0.1711	5.3000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		52.9241	52.9241	1.3700e-003		52.9583
Total	**0.0262**	**0.2465**	**0.2496**	**1.5200e-003**	**0.0798**	**8.1000e-004**	**0.0806**	**0.0215**	**7.5000e-004**	**0.0222**		**159.4713**	**159.4713**	**8.0300e-003**		**159.6718**

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					
Archit. Coating	34.5112					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0396	0.1717	2.4432	3.9600e-003		5.2800e-003	5.2800e-003		5.2800e-003	5.2800e-003	0.0000	375.2641	375.2641	0.0225		375.8253
Total	**34.5508**	**0.1717**	**2.4432**	**3.9600e-003**		**5.2800e-003**	**5.2800e-003**		**5.2800e-003**	**5.2800e-003**	**0.0000**	**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.2000e-003	0.1644	0.0568	7.4000e-004	0.0175	3.0000e-004	0.0178	4.7900e-003	2.8000e-004	5.0800e-003		80.1565	80.1565	5.2700e-003		80.2881
Vendor	2.1200e-003	0.0701	0.0217	2.5000e-004	6.4000e-003	8.0000e-005	6.4800e-003	1.8400e-003	8.0000e-005	1.9200e-003		26.3907	26.3907	1.3900e-003		26.4254
Worker	0.0189	0.0120	0.1711	5.3000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		52.9241	52.9241	1.3700e-003		52.9583
Total	**0.0262**	**0.2465**	**0.2496**	**1.5200e-003**	**0.0798**	**8.1000e-004**	**0.0806**	**0.0215**	**7.5000e-004**	**0.0222**		**159.4713**	**159.4713**	**8.0300e-003**		**159.6718**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309
Unmitigated	5.1657	20.8957	63.3973	0.2342	19.3757	0.1727	19.5484	5.1851	0.1606	5.3457		23,859.4066	23,859.4066	1.1610		23,888.4309

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,116.80	2,116.80	2116.80	7,233,427	7,233,427
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	614.00	614.00	614.00	836,778	836,778
Pharmacy/Drugstore with Drive Thru	784.00	784.00	784.00	1,041,658	1,041,658
Total	3,514.80	3,514.80	3,514.80	9,111,863	9,111,863

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Pharmacy/Drugstore with Drive	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Pharmacy/Drugstore with Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	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	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
NaturalGas Unmitigated	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239

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					
Apartments Mid Rise	12993.4	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	62.9041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	12.9934	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	0.0629041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Unmitigated	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

7940 Lankershim Boulevard - with PDFs

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	14.00	1000sqft	0.00	14,000.00	0
Enclosed Parking with Elevator	541.00	Space	0.00	216,400.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.00	8,000.00	0
Apartments Mid Rise	432.00	Dwelling Unit	4.69	432,000.00	1236

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	669	**CH4 Intensity (lb/MWhr)**	0.026	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Accounts for RPS for LADWP

Land Use - 4.69-acre site; 541 parking spaces associated with proposed project parking structure

Construction Phase - Construction to occur 6 days/week

Off-road Equipment - Architectural coating equip

Off-road Equipment - Building equip

Off-road Equipment - Demolition equip

Off-road Equipment - Grading equip

Off-road Equipment - Paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Anticipated construction vehicle trips

Demolition - Based on 7 daily haul truck trips over 40 days, and assuming building debris density is 1,620 lbs/cyd

Grading - 89,000 cy of soil export

Architectural Coating - Use of super-complaint coatings

Vehicle Trips - Accounts for less trips from walk-in/transit reduction, internal apture, and pass-by reductions

Woodstoves - Accounts for outdoor courtyard fireplaces (2) and firepits (2); Assumes these outdoor amenites would be used 30% of the year.

Area Coating - SCAQMD Rule 1113 compliance

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403; use of tier 4 off-road equipment

Energy Mitigation - Use of Energy Star appliances

Water Mitigation - CALGreen

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblApplianceMitigation	PercentImprovement	30.00	25.00
tblApplianceMitigation	PercentImprovement	15.00	12.00
tblApplianceMitigation	PercentImprovement	50.00	40.00
tblApplianceMitigation	PercentImprovement	15.00	9.00

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tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
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tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	110.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	367.20	4.00
tblFireplaces	NumberNoFireplace	43.20	428.00
tblFireplaces	NumberWood	21.60	0.00
tblGrading	MaterialExported	0.00	89,000.00

tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	4.87	0.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	11.37	4.69
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.026
tblProjectCharacteristics	CO2IntensityFactor	1227.89	669

tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	359.00	280.00
tblTripsAndVMT	HaulingTripNumber	0.00	924.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,632.00
tblTripsAndVMT	HaulingTripNumber	0.00	24.00
tblTripsAndVMT	HaulingTripNumber	0.00	18.00
tblTripsAndVMT	VendorTripNumber	0.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	17.00
tblTripsAndVMT	VendorTripNumber	0.00	55.00
tblTripsAndVMT	VendorTripNumber	85.00	3.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	15.00	12.00
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tblTripsAndVMT	WorkerTripNumber	18.00	14.00
tblTripsAndVMT	WorkerTripNumber	410.00	85.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	82.00	5.00
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	158.37	76.75
tblVehicleTrips	ST_TR	96.91	56.00
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	131.84	76.75
tblVehicleTrips	SU_TR	96.91	56.00
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tblVehicleTrips	WD_TR	127.15	76.75
tblVehicleTrips	WD_TR	96.91	56.00

tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2019	3.4615	36.5704	19.9910	0.0430	2.2177	1.6850	3.9027	0.3687	1.5643	1.9330	0.0000	4,297.8739	4,297.8739	1.0468	0.0000	4,324.0444
2020	5.5734	116.9127	37.5772	0.2697	12.4406	1.5956	14.0362	4.9101	1.4785	6.3886	0.0000	28,741.5966	28,741.5966	2.9835	0.0000	28,816.1838
2021	1.7096	14.9620	13.1863	0.0360	1.4696	0.5711	2.0407	0.3863	0.5404	0.9267	0.0000	3,583.3030	3,583.3030	0.4614	0.0000	3,594.8379
2022	1.5651	13.4954	12.7777	0.0355	1.4696	0.4911	1.9606	0.3863	0.4648	0.8511	0.0000	3,539.0318	3,539.0318	0.4543	0.0000	3,550.3897
2023	35.4818	11.5953	12.3668	0.0348	2.2118	0.4283	2.6401	0.5685	0.4052	0.9737	0.0000	3,463.7038	3,463.7038	0.4477	0.0000	3,474.7766
Maximum	**35.4818**	**116.9127**	**37.5772**	**0.2697**	**12.4406**	**1.6850**	**14.0362**	**4.9101**	**1.5643**	**6.3886**	**0.0000**	**28,741.5966**	**28,741.5966**	**2.9835**	**0.0000**	**28,816.1838**

2.1 Overall Construction (Maximum Daily Emission)

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					
2019	0.5704	4.4043	20.9995	0.0430	1.0331	0.0679	1.1010	0.1893	0.0674	0.2567	0.0000	4,297.8739	4,297.8739	1.0468	0.0000	4,324.0444
2020	3.2342	88.9429	40.0524	0.2697	8.1284	0.3511	8.4795	2.8152	0.3385	3.1537	0.0000	28,741.5966	28,741.5966	2.9835	0.0000	28,816.1838
2021	0.7225	5.3260	13.9922	0.0360	1.4696	0.0435	1.5131	0.3863	0.0424	0.4287	0.0000	3,583.3030	3,583.3030	0.4614	0.0000	3,594.8379
2022	0.6924	5.0508	13.7307	0.0355	1.4696	0.0419	1.5114	0.3863	0.0409	0.4272	0.0000	3,539.0318	3,539.0318	0.4543	0.0000	3,550.3897
2023	34.8348	3.9220	13.4094	0.0348	2.2118	0.0392	2.2481	0.5685	0.0391	0.6041	0.0000	3,463.7038	3,463.7038	0.4477	0.0000	3,474.7766
Maximum	**34.8348**	**88.9429**	**40.0524**	**0.2697**	**8.1284**	**0.3511**	**8.4795**	**2.8152**	**0.3385**	**3.1537**	**0.0000**	**28,741.5966**	**28,741.5966**	**2.9835**	**0.0000**	**28,816.1838**

	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	N20	CO2e
Percent Reduction	**16.19**	**44.38**	**-6.55**	**0.00**	**27.75**	**88.61**	**39.57**	**34.35**	**88.14**	**56.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932
Total	**16.1325**	**23.4978**	**97.2699**	**0.2356**	**19.3757**	**0.5115**	**19.8872**	**5.1851**	**0.4994**	**5.6844**	**0.0000**	**24,979.4183**	**24,979.4183**	**1.2661**	**0.0406**	**25,023.1749**

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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Energy	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
Mobile	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932
Total	**16.1325**	**23.4978**	**97.2699**	**0.2356**	**19.3757**	**0.5115**	**19.8872**	**5.1851**	**0.4994**	**5.6844**	**0.0000**	**24,979.4183**	**24,979.4183**	**1.2661**	**0.0406**	**25,023.1749**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	10/1/2019	11/15/2019	6	40	
2	Site Preparation	Site Preparation	5/1/2020	6/2/2020	6	28	
3	Grading	Grading	6/3/2020	7/18/2020	6	40	
4	Building Construction	Building Construction	7/19/2020	5/18/2023	6	886	
5	Paving	Paving	5/19/2023	6/1/2023	6	12	
6	Architectural Coating	Architectural Coating	5/19/2023	6/8/2023	6	18	

Acres of Grading (Site Preparation Phase): 28

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 874,800; Residential Outdoor: 291,600; Non-Residential Indoor: 33,000; Non-Residential Outdoor: 11,000; Striped Parking Area: 12,984 (Architectural Coating – sqft)

OffRoad Equipment

7940 Lankershim Boulevard - with PDFs - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Off-Highway Trucks	1	2.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Scrapers	1	4.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	2	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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	6	12.00	3.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	10.00	17.00	924.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	14.00	55.00	11,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	85.00	3.00	10,632.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	1.00	24.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	1.00	18.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 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					1.9420	0.0000	1.9420	0.2940	0.0000	0.2940			0.0000			0.0000
Off-Road	3.3146	34.0014	18.8705	0.0354		1.6736	1.6736		1.5535	1.5535		3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**3.3146**	**34.0014**	**18.8705**	**0.0354**	**1.9420**	**1.6736**	**3.6155**	**0.2940**	**1.5535**	**1.8475**		**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0674	2.1726	0.4880	5.5000e-003	0.1224	8.0100e-003	0.1304	0.0336	7.6700e-003	0.0412		594.8948	594.8948	0.0433		595.9764
Vendor	0.0130	0.3477	0.1015	7.6000e-004	0.0192	2.2500e-003	0.0215	5.5300e-003	2.1500e-003	7.6800e-003		81.3831	81.3831	5.7200e-003		81.5261
Worker	0.0665	0.0488	0.5310	1.3800e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		137.0557	137.0557	4.7100e-003		137.1736
Total	**0.1469**	**2.5690**	**1.1205**	**7.6400e-003**	**0.2757**	**0.0114**	**0.2872**	**0.0747**	**0.0109**	**0.0855**		**813.3336**	**813.3336**	**0.0537**		**814.6760**

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					0.7574	0.0000	0.7574	0.1147	0.0000	0.1147			0.0000			0.0000
Off-Road	0.4235	1.8352	19.8790	0.0354		0.0565	0.0565		0.0565	0.0565	0.0000	3,484.5403	3,484.5403	0.9931		3,509.3683
Total	**0.4235**	**1.8352**	**19.8790**	**0.0354**	**0.7574**	**0.0565**	**0.8138**	**0.1147**	**0.0565**	**0.1711**	**0.0000**	**3,484.5403**	**3,484.5403**	**0.9931**		**3,509.3683**

3.2 Demolition - 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	0.0674	2.1726	0.4880	5.5000e-003	0.1224	8.0100e-003	0.1304	0.0336	7.6700e-003	0.0412		594.8948	594.8948	0.0433		595.9764
Vendor	0.0130	0.3477	0.1015	7.6000e-004	0.0192	2.2500e-003	0.0215	5.5300e-003	2.1500e-003	7.6800e-003		81.3831	81.3831	5.7200e-003		81.5261
Worker	0.0665	0.0488	0.5310	1.3800e-003	0.1341	1.1600e-003	0.1353	0.0356	1.0700e-003	0.0366		137.0557	137.0557	4.7100e-003		137.1736
Total	**0.1469**	**2.5690**	**1.1205**	**7.6400e-003**	**0.2757**	**0.0114**	**0.2872**	**0.0747**	**0.0109**	**0.0855**		**813.3336**	**813.3336**	**0.0537**		**814.6760**

3.3 Site Preparation - 2020

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					4.0715	0.0000	4.0715	1.7696	0.0000	1.7696			0.0000			0.0000
Off-Road	2.0531	23.1342	11.7943	0.0282		0.9572	0.9572		0.8806	0.8806		2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**2.0531**	**23.1342**	**11.7943**	**0.0282**	**4.0715**	**0.9572**	**5.0287**	**1.7696**	**0.8806**	**2.6502**		**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2953	9.6117	2.2346	0.0256	0.5770	0.0308	0.6077	0.1582	0.0294	0.1876		2,775.6104	2,775.6104	0.1992		2,780.5911
Vendor	0.0632	1.8080	0.5226	4.2900e-003	0.1088	8.6500e-003	0.1175	0.0313	8.2700e-003	0.0396		458.0634	458.0634	0.0306		458.8292
Worker	0.0511	0.0363	0.4010	1.1100e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		110.7420	110.7420	3.4900e-003		110.8293
Total	**0.4096**	**11.4559**	**3.1582**	**0.0310**	**0.7976**	**0.0403**	**0.8379**	**0.2191**	**0.0386**	**0.2577**		**3,344.4159**	**3,344.4159**	**0.2334**		**3,350.2495**

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					1.5879	0.0000	1.5879	0.6902	0.0000	0.6902			0.0000			0.0000
Off-Road	0.3454	1.4968	13.6150	0.0282		0.0461	0.0461		0.0461	0.0461	0.0000	2,729.9770	2,729.9770	0.8829		2,752.0502
Total	**0.3454**	**1.4968**	**13.6150**	**0.0282**	**1.5879**	**0.0461**	**1.6340**	**0.6902**	**0.0461**	**0.7362**	**0.0000**	**2,729.9770**	**2,729.9770**	**0.8829**		**2,752.0502**

3.3 Site Preparation - 2020

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	0.2953	9.6117	2.2346	0.0256	0.5770	0.0308	0.6077	0.1582	0.0294	0.1876		2,775.6104	2,775.6104	0.1992		2,780.5911
Vendor	0.0632	1.8080	0.5226	4.2900e-003	0.1088	8.6500e-003	0.1175	0.0313	8.2700e-003	0.0396		458.0634	458.0634	0.0306		458.8292
Worker	0.0511	0.0363	0.4010	1.1100e-003	0.1118	9.3000e-004	0.1127	0.0296	8.6000e-004	0.0305		110.7420	110.7420	3.4900e-003		110.8293
Total	**0.4096**	**11.4559**	**3.1582**	**0.0310**	**0.7976**	**0.0403**	**0.8379**	**0.2191**	**0.0386**	**0.2577**		**3,344.4159**	**3,344.4159**	**0.2334**		**3,350.2495**

3.4 Grading - 2020

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					7.0691	0.0000	7.0691	3.4342	0.0000	3.4342			0.0000			0.0000
Off-Road	2.8090	30.0053	16.4918	0.0383		1.3072	1.3072		1.2026	1.2026		3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**2.8090**	**30.0053**	**16.4918**	**0.0383**	**7.0691**	**1.3072**	**8.3763**	**3.4342**	**1.2026**	**4.6368**		**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4884	81.0074	18.8333	0.2159	4.8629	0.2592	5.1220	1.3330	0.2479	1.5809		23,392.9288	23,392.9288	1.6791		23,434.9057
Vendor	0.2045	5.8493	1.6906	0.0139	0.3521	0.0280	0.3801	0.1014	0.0268	0.1281		1,481.9699	1,481.9699	0.0991		1,484.4473
Worker	0.0715	0.0508	0.5614	1.5600e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		155.0389	155.0389	4.8900e-003		155.1610
Total	**2.7645**	**86.9074**	**21.0854**	**0.2313**	**5.3715**	**0.2884**	**5.6599**	**1.4759**	**0.2759**	**1.7518**		**25,029.9375**	**25,029.9375**	**1.7831**		**25,074.5141**

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					2.7569	0.0000	2.7569	1.3393	0.0000	1.3393			0.0000			0.0000
Off-Road	0.4697	2.0355	18.9670	0.0383		0.0626	0.0626		0.0626	0.0626	0.0000	3,711.6591	3,711.6591	1.2004		3,741.6698
Total	**0.4697**	**2.0355**	**18.9670**	**0.0383**	**2.7569**	**0.0626**	**2.8196**	**1.3393**	**0.0626**	**1.4020**	**0.0000**	**3,711.6591**	**3,711.6591**	**1.2004**		**3,741.6698**

3.4 Grading - 2020

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	2.4884	81.0074	18.8333	0.2159	4.8629	0.2592	5.1220	1.3330	0.2479	1.5809		23,392.9288	23,392.9288	1.6791		23,434.9057
Vendor	0.2045	5.8493	1.6906	0.0139	0.3521	0.0280	0.3801	0.1014	0.0268	0.1281		1,481.9699	1,481.9699	0.0991		1,484.4473
Worker	0.0715	0.0508	0.5614	1.5600e-003	0.1565	1.3100e-003	0.1578	0.0415	1.2100e-003	0.0427		155.0389	155.0389	4.8900e-003		155.1610
Total	**2.7645**	**86.9074**	**21.0854**	**0.2313**	**5.3715**	**0.2884**	**5.6599**	**1.4759**	**0.2759**	**1.7518**		**25,029.9375**	**25,029.9375**	**1.7831**		**25,074.5141**

3.5 Building Construction - 2020

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	1.3268	12.2573	9.3847	0.0169		0.6402	0.6402		0.6060	0.6060		1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**1.3268**	**12.2573**	**9.3847**	**0.0169**		**0.6402**	**0.6402**		**0.6060**	**0.6060**		**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1074	3.4952	0.8126	9.3100e-003	1.0411	0.0112	1.0523	0.2616	0.0107	0.2723		1,009.3129	1,009.3129	0.0725		1,011.1240
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.4344	0.3081	3.4086	9.4500e-003	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		941.3073	941.3073	0.0297		942.0491
Total	**0.5529**	**4.1223**	**4.3134**	**0.0195**	**2.0104**	**0.0207**	**2.0310**	**0.5191**	**0.0195**	**0.5385**		**2,031.4549**	**2,031.4549**	**0.1075**		**2,034.1429**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,593.4655	1,593.4655	0.3632		1,602.5459
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,593.4655**	**1,593.4655**	**0.3632**		**1,602.5459**

3.5 Building Construction - 2020

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	0.1074	3.4952	0.8126	9.3100e-003	1.0411	0.0112	1.0523	0.2616	0.0107	0.2723		1,009.3129	1,009.3129	0.0725		1,011.1240
Vendor	0.0112	0.3191	0.0922	7.6000e-004	0.0192	1.5300e-003	0.0207	5.5300e-003	1.4600e-003	6.9900e-003		80.8347	80.8347	5.4100e-003		80.9699
Worker	0.4344	0.3081	3.4086	9.4500e-003	0.9501	7.9400e-003	0.9580	0.2520	7.3200e-003	0.2593		941.3073	941.3073	0.0297		942.0491
Total	**0.5529**	**4.1223**	**4.3134**	**0.0195**	**2.0104**	**0.0207**	**2.0310**	**0.5191**	**0.0195**	**0.5385**		**2,031.4549**	**2,031.4549**	**0.1075**		**2,034.1429**

3.5 Building Construction - 2021

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	1.1922	11.1358	9.1716	0.0169		0.5528	0.5528		0.5231	0.5231		1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**1.1922**	**11.1358**	**9.1716**	**0.0169**		**0.5528**	**0.5528**		**0.5231**	**0.5231**		**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1025	3.2584	0.8003	9.2000e-003	0.5003	0.0100	0.5103	0.1288	9.6000e-003	0.1384		998.1397	998.1397	0.0714		999.9238
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.4053	0.2772	3.1302	9.1500e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		911.4134	911.4134	0.0268		912.0839
Total	**0.5173**	**3.8263**	**4.0147**	**0.0191**	**1.4696**	**0.0183**	**1.4879**	**0.3863**	**0.0173**	**0.4036**		**1,989.7568**	**1,989.7568**	**0.1034**		**1,992.3408**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,593.5462	1,593.5462	0.3580		1,602.4972
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,593.5462**	**1,593.5462**	**0.3580**		**1,602.4972**

3.5 Building Construction - 2021

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	0.1025	3.2584	0.8003	9.2000e-003	0.5003	0.0100	0.5103	0.1288	9.6000e-003	0.1384		998.1397	998.1397	0.0714		999.9238
Vendor	9.5700e-003	0.2907	0.0842	7.5000e-004	0.0192	6.1000e-004	0.0198	5.5300e-003	5.9000e-004	6.1200e-003		80.2037	80.2037	5.1800e-003		80.3331
Worker	0.4053	0.2772	3.1302	9.1500e-003	0.9501	7.6800e-003	0.9578	0.2520	7.0700e-003	0.2590		911.4134	911.4134	0.0268		912.0839
Total	**0.5173**	**3.8263**	**4.0147**	**0.0191**	**1.4696**	**0.0183**	**1.4879**	**0.3863**	**0.0173**	**0.4036**		**1,989.7568**	**1,989.7568**	**0.1034**		**1,992.3408**

3.5 Building Construction - 2022

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	1.0779	9.9445	9.0244	0.0169		0.4744	0.4744		0.4491	0.4491		1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**1.0779**	**9.9445**	**9.0244**	**0.0169**		**0.4744**	**0.4744**		**0.4491**	**0.4491**		**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0975	3.0244	0.7905	9.0800e-003	0.5003	8.7200e-003	0.5090	0.1288	8.3400e-003	0.1372		986.1801	986.1801	0.0702		987.9354
Vendor	8.9900e-003	0.2762	0.0797	7.4000e-004	0.0192	5.4000e-004	0.0197	5.5300e-003	5.1000e-004	6.0400e-003		79.4911	79.4911	5.0000e-003		79.6160
Worker	0.3807	0.2504	2.8830	8.8200e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		879.3840	879.3840	0.0242		879.9894
Total	**0.4872**	**3.5510**	**3.7533**	**0.0186**	**1.4696**	**0.0167**	**1.4863**	**0.3863**	**0.0157**	**0.4020**		**1,945.0552**	**1,945.0552**	**0.0994**		**1,947.5408**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,593.9766	1,593.9766	0.3549		1,602.8489
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,593.9766**	**1,593.9766**	**0.3549**		**1,602.8489**

3.5 Building Construction - 2022

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	0.0975	3.0244	0.7905	9.0800e-003	0.5003	8.7200e-003	0.5090	0.1288	8.3400e-003	0.1372		986.1801	986.1801	0.0702		987.9354
Vendor	8.9900e-003	0.2762	0.0797	7.4000e-004	0.0192	5.4000e-004	0.0197	5.5300e-003	5.1000e-004	6.0400e-003		79.4911	79.4911	5.0000e-003		79.6160
Worker	0.3807	0.2504	2.8830	8.8200e-003	0.9501	7.4400e-003	0.9575	0.2520	6.8500e-003	0.2588		879.3840	879.3840	0.0242		879.9894
Total	**0.4872**	**3.5510**	**3.7533**	**0.0186**	**1.4696**	**0.0167**	**1.4863**	**0.3863**	**0.0157**	**0.4020**		**1,945.0552**	**1,945.0552**	**0.0994**		**1,947.5408**

3.5 Building Construction - 2023

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	0.9999	9.1731	8.9348	0.0169		0.4172	0.4172		0.3948	0.3948		1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.9999**	**9.1731**	**8.9348**	**0.0169**		**0.4172**	**0.4172**		**0.3948**	**0.3948**		**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0640	1.9865	0.7111	8.6800e-003	1.2424	3.6700e-003	1.2461	0.3110	3.5100e-003	0.3145		945.1659	945.1659	0.0650		946.7909
Vendor	6.6800e-003	0.2092	0.0709	7.2000e-004	0.0192	2.6000e-004	0.0195	5.5300e-003	2.4000e-004	5.7700e-003		77.0224	77.0224	4.4000e-003		77.1323
Worker	0.3586	0.2264	2.6500	8.5000e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		847.2125	847.2125	0.0218		847.7576
Total	**0.4293**	**2.4222**	**3.4320**	**0.0179**	**2.2118**	**0.0112**	**2.2229**	**0.5685**	**0.0104**	**0.5789**		**1,869.4007**	**1,869.4007**	**0.0912**		**1,871.6808**

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	0.2052	1.4998	9.9775	0.0169		0.0252	0.0252		0.0252	0.0252	0.0000	1,594.3031	1,594.3031	0.3517		1,603.0958
Total	**0.2052**	**1.4998**	**9.9775**	**0.0169**		**0.0252**	**0.0252**		**0.0252**	**0.0252**	**0.0000**	**1,594.3031**	**1,594.3031**	**0.3517**		**1,603.0958**

3.5 Building Construction - 2023

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	0.0640	1.9865	0.7111	8.6800e-003	1.2424	3.6700e-003	1.2461	0.3110	3.5100e-003	0.3145		945.1659	945.1659	0.0650		946.7909
Vendor	6.6800e-003	0.2092	0.0709	7.2000e-004	0.0192	2.6000e-004	0.0195	5.5300e-003	2.4000e-004	5.7700e-003		77.0224	77.0224	4.4000e-003		77.1323
Worker	0.3586	0.2264	2.6500	8.5000e-003	0.9501	7.2300e-003	0.9573	0.2520	6.6500e-003	0.2586		847.2125	847.2125	0.0218		847.7576
Total	**0.4293**	**2.4222**	**3.4320**	**0.0179**	**2.2118**	**0.0112**	**2.2229**	**0.5685**	**0.0104**	**0.5789**		**1,869.4007**	**1,869.4007**	**0.0912**		**1,871.6808**

3.6 Paving - 2023

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	0.6313	6.1230	8.5577	0.0133		0.3032	0.3032		0.2798	0.2798		1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6313**	**6.1230**	**8.5577**	**0.0133**		**0.3032**	**0.3032**		**0.2798**	**0.2798**		**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0107	0.3311	0.1185	1.4500e-003	0.0350	6.1000e-004	0.0356	9.5900e-003	5.9000e-004	0.0102		157.5276	157.5276	0.0108		157.7985
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0422	0.0266	0.3118	1.0000e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		99.6721	99.6721	2.5700e-003		99.7362
Total	**0.0551**	**0.4275**	**0.4539**	**2.6900e-003**	**0.1532**	**1.5500e-003**	**0.1547**	**0.0411**	**1.4500e-003**	**0.0425**		**282.8738**	**282.8738**	**0.0149**		**283.2455**

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	0.2002	0.9528	9.8604	0.0133		0.0316	0.0316		0.0316	0.0316	0.0000	1,269.2449	1,269.2449	0.4022		1,279.2994
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.2002**	**0.9528**	**9.8604**	**0.0133**		**0.0316**	**0.0316**		**0.0316**	**0.0316**	**0.0000**	**1,269.2449**	**1,269.2449**	**0.4022**		**1,279.2994**

3.6 Paving - 2023

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	0.0107	0.3311	0.1185	1.4500e-003	0.0350	6.1000e-004	0.0356	9.5900e-003	5.9000e-004	0.0102		157.5276	157.5276	0.0108		157.7985
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0422	0.0266	0.3118	1.0000e-003	0.1118	8.5000e-004	0.1126	0.0296	7.8000e-004	0.0304		99.6721	99.6721	2.5700e-003		99.7362
Total	**0.0551**	**0.4275**	**0.4539**	**2.6900e-003**	**0.1532**	**1.5500e-003**	**0.1547**	**0.0411**	**1.4500e-003**	**0.0425**		**282.8738**	**282.8738**	**0.0149**		**283.2455**

3.7 Architectural Coating - 2023

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					
Archit. Coating	34.5112					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	**34.7667**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**		**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.3300e-003	0.1656	0.0593	7.2000e-004	0.0175	3.1000e-004	0.0178	4.7900e-003	2.9000e-004	5.0900e-003		78.7638	78.7638	5.4200e-003		78.8992
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0211	0.0133	0.1559	5.0000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		49.8360	49.8360	1.2800e-003		49.8681
Total	**0.0287**	**0.2486**	**0.2388**	**1.4600e-003**	**0.0798**	**8.3000e-004**	**0.0806**	**0.0215**	**7.6000e-004**	**0.0222**		**154.2740**	**154.2740**	**8.1700e-003**		**154.4781**

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					
Archit. Coating	34.5112					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.0396	0.1717	2.4432	3.9600e-003		5.2800e-003	5.2800e-003		5.2800e-003	5.2800e-003	0.0000	375.2641	375.2641	0.0225		375.8253
Total	**34.5508**	**0.1717**	**2.4432**	**3.9600e-003**		**5.2800e-003**	**5.2800e-003**		**5.2800e-003**	**5.2800e-003**	**0.0000**	**375.2641**	**375.2641**	**0.0225**		**375.8253**

3.7 Architectural Coating - 2023

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	5.3300e-003	0.1656	0.0593	7.2000e-004	0.0175	3.1000e-004	0.0178	4.7900e-003	2.9000e-004	5.0900e-003		78.7638	78.7638	5.4200e-003		78.8992
Vendor	2.2300e-003	0.0697	0.0236	2.4000e-004	6.4000e-003	9.0000e-005	6.4900e-003	1.8400e-003	8.0000e-005	1.9200e-003		25.6741	25.6741	1.4700e-003		25.7108
Worker	0.0211	0.0133	0.1559	5.0000e-004	0.0559	4.3000e-004	0.0563	0.0148	3.9000e-004	0.0152		49.8360	49.8360	1.2800e-003		49.8681
Total	**0.0287**	**0.2486**	**0.2388**	**1.4600e-003**	**0.0798**	**8.3000e-004**	**0.0806**	**0.0215**	**7.6000e-004**	**0.0222**		**154.2740**	**154.2740**	**8.1700e-003**		**154.4781**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932
Unmitigated	4.9992	21.3206	60.6045	0.2227	19.3757	0.1737	19.5494	5.1851	0.1615	5.3466		22,699.3546	22,699.3546	1.1615		22,728.3932

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,116.80	2,116.80	2116.80	7,233,427	7,233,427
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	614.00	614.00	614.00	836,778	836,778
Pharmacy/Drugstore with Drive Thru	784.00	784.00	784.00	1,041,658	1,041,658
Total	3,514.80	3,514.80	3,514.80	9,111,863	9,111,863

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Pharmacy/Drugstore with Drive	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Pharmacy/Drugstore with Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	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	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239
NaturalGas Unmitigated	0.1954	1.6995	0.9312	0.0107		0.1350	0.1350		0.1350	0.1350		2,131.0600	2,131.0600	0.0409	0.0391	2,143.7239

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					
Apartments Mid Rise	12993.4	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	62.9041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	12.9934	0.1401	1.1974	0.5095	7.6400e-003		0.0968	0.0968		0.0968	0.0968		1,528.6297	1,528.6297	0.0293	0.0280	1,537.7136
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Pharmacy/Drugstore with Drive Thru	0.0629041	6.8000e-004	6.1700e-003	5.1800e-003	4.0000e-005		4.7000e-004	4.7000e-004		4.7000e-004	4.7000e-004		7.4005	7.4005	1.4000e-004	1.4000e-004	7.4445
Total		**0.1953**	**1.6995**	**0.9312**	**0.0107**		**0.1350**	**0.1350**		**0.1350**	**0.1350**		**2,131.0600**	**2,131.0600**	**0.0408**	**0.0391**	**2,143.7239**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579
Unmitigated	10.9379	0.4778	35.7342	2.3100e-003		0.2029	0.2029		0.2029	0.2029	0.0000	149.0037	149.0037	0.0637	1.5500e-003	151.0579

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

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	0.7850					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	9.0659					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	7.7600e-003	0.0664	0.0282	4.2000e-004		5.3600e-003	5.3600e-003		5.3600e-003	5.3600e-003	0.0000	84.7059	84.7059	1.6200e-003	1.5500e-003	85.2093
Landscaping	1.0793	0.4115	35.7060	1.8900e-003		0.1975	0.1975		0.1975	0.1975		64.2978	64.2978	0.0620		65.8487
Total	**10.9379**	**0.4778**	**35.7342**	**2.3100e-003**		**0.2029**	**0.2029**		**0.2029**	**0.2029**	**0.0000**	**149.0037**	**149.0037**	**0.0637**	**1.5500e-003**	**151.0579**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

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

7940 Lankershim Boulevard - with PDFs

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore with Drive Thru	14.00	1000sqft	0.00	14,000.00	0
Enclosed Parking with Elevator	541.00	Space	0.00	216,400.00	0
High Turnover (Sit Down Restaurant)	8.00	1000sqft	0.00	8,000.00	0
Apartments Mid Rise	432.00	Dwelling Unit	4.69	432,000.00	1236

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	669	**CH4 Intensity (lb/MWhr)**	0.026	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Accounts for RPS for LADWP

Land Use - 4.69-acre site; 541 parking spaces associated with proposed project parking structure

Construction Phase - Construction to occur 6 days/week

Off-road Equipment - Architectural coating equip

Off-road Equipment - Building equip

Off-road Equipment - Demolition equip

Off-road Equipment - Grading equip

Off-road Equipment - Paving equip

Off-road Equipment - Site prep equip

Trips and VMT - Anticipated construction vehicle trips

Demolition - Based on 7 daily haul truck trips over 40 days, and assuming building debris density is 1,620 lbs/cyd

Grading - 89,000 cy of soil export

Architectural Coating - Use of super-complaint coatings

Vehicle Trips - Accounts for less trips from walk-in/transit reduction, internal apture, and pass-by reductions

Woodstoves - Accounts for outdoor courtyard fireplaces (2) and firepits (2); Assumes these outdoor amenites would be used 30% of the year.

Area Coating - SCAQMD Rule 1113 compliance

Energy Use -

Construction Off-road Equipment Mitigation - SCAQMD Rule 403; use of tier 4 off-road equipment

Energy Mitigation - Use of Energy Star appliances

Water Mitigation - CALGreen

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
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tblApplianceMitigation	PercentImprovement	50.00	40.00
tblApplianceMitigation	PercentImprovement	15.00	9.00

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tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	10.00
tblArchitecturalCoating	EF_Residential_Exterior	50.00	10.00
tblArchitecturalCoating	EF_Residential_Interior	50.00	10.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
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tblConstructionPhase	NumDaysWeek	5.00	6.00
tblFireplaces	FireplaceDayYear	25.00	110.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	367.20	4.00
tblFireplaces	NumberNoFireplace	43.20	428.00
tblFireplaces	NumberWood	21.60	0.00
tblGrading	MaterialExported	0.00	89,000.00

tblLandUse	LotAcreage	0.32	0.00
tblLandUse	LotAcreage	4.87	0.00
tblLandUse	LotAcreage	0.18	0.00
tblLandUse	LotAcreage	11.37	4.69
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	8.00
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tblProjectCharacteristics	CO2IntensityFactor	1227.89	669

tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	HaulingTripNumber	359.00	280.00
tblTripsAndVMT	HaulingTripNumber	0.00	924.00
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tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblTripsAndVMT	WorkerTripNumber	82.00	5.00
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	158.37	76.75
tblVehicleTrips	ST_TR	96.91	56.00
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	131.84	76.75
tblVehicleTrips	SU_TR	96.91	56.00
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tblVehicleTrips	WD_TR	96.91	56.00

tblWoodstoves	NumberCatalytic	21.60	0.00
tblWoodstoves	NumberNoncatalytic	21.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

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					
2019	0.0691	0.7324	0.3997	8.6000e-004	0.0443	0.0337	0.0780	7.3500e-003	0.0313	0.0386	0.0000	78.1525	78.1525	0.0190	0.0000	78.6268
2020	0.2752	4.0285	1.9226	8.8800e-003	0.4548	0.0927	0.5475	0.1617	0.0868	0.2485	0.0000	839.1383	839.1383	0.0978	0.0000	841.5841
2021	0.2611	2.3535	2.0722	5.6700e-003	0.2254	0.0894	0.3148	0.0593	0.0846	0.1439	0.0000	512.5257	512.5257	0.0654	0.0000	514.1595
2022	0.2388	2.1231	2.0076	5.6000e-003	0.2254	0.0768	0.3023	0.0593	0.0727	0.1321	0.0000	506.1585	506.1585	0.0644	0.0000	507.7672
2023	0.3994	0.7441	0.8109	2.2100e-003	0.1294	0.0280	0.1573	0.0333	0.0265	0.0598	0.0000	199.5389	199.5389	0.0262	0.0000	200.1935
Maximum	**0.3994**	**4.0285**	**2.0722**	**8.8800e-003**	**0.4548**	**0.0927**	**0.5475**	**0.1617**	**0.0868**	**0.2485**	**0.0000**	**839.1383**	**839.1383**	**0.0978**	**0.0000**	**841.5841**

2.1 Overall Construction

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					
2019	0.0113	0.0891	0.4198	8.6000e-004	0.0206	1.3600e-003	0.0219	3.7600e-003	1.3500e-003	5.1100e-003	0.0000	78.1524	78.1524	0.0190	0.0000	78.6268
2020	0.1249	2.4024	2.0397	8.8800e-003	0.3337	0.0114	0.3452	0.1047	0.0111	0.1157	0.0000	839.1381	839.1381	0.0978	0.0000	841.5838
2021	0.1066	0.8455	2.1983	5.6700e-003	0.2254	6.7900e-003	0.2322	0.0593	6.6200e-003	0.0660	0.0000	512.5255	512.5255	0.0654	0.0000	514.1592
2022	0.1022	0.8015	2.1567	5.6000e-003	0.2254	6.5400e-003	0.2320	0.0593	6.3800e-003	0.0657	0.0000	506.1583	506.1583	0.0644	0.0000	507.7670
2023	0.3479	0.2463	0.8804	2.2100e-003	0.1294	2.3900e-003	0.1318	0.0333	2.3500e-003	0.0357	0.0000	199.5388	199.5388	0.0262	0.0000	200.1934
Maximum	**0.3479**	**2.4024**	**2.1983**	**8.8800e-003**	**0.3337**	**0.0114**	**0.3452**	**0.1047**	**0.0111**	**0.1157**	**0.0000**	**839.1381**	**839.1381**	**0.0978**	**0.0000**	**841.5838**

	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	N20	CO2e
Percent Reduction	**44.28**	**56.07**	**-6.68**	**0.00**	**13.41**	**91.11**	**31.20**	**18.88**	**90.80**	**53.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2019	12-31-2019	0.7892	0.0981
3	4-1-2020	6-30-2020	1.9785	1.2846
4	7-1-2020	9-30-2020	1.5116	0.9010
5	10-1-2020	12-31-2020	0.7199	0.2516
6	1-1-2021	3-31-2021	0.6430	0.2333
7	4-1-2021	6-30-2021	0.6459	0.2316

8	**7-1-2021**	**9-30-2021**	0.6530	0.2342
9	**10-1-2021**	**12-31-2021**	0.6573	0.2385
10	**1-1-2022**	**3-31-2022**	0.5809	0.2215
11	**4-1-2022**	**6-30-2022**	0.5835	0.2201
12	**7-1-2022**	**9-30-2022**	0.5899	0.2225
13	**10-1-2022**	**12-31-2022**	0.5938	0.2264
14	**1-1-2023**	**3-31-2023**	0.5024	0.1757
15	**4-1-2023**	**6-30-2023**	0.6408	0.4169
		Highest	1.9785	1.2846

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	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186
Energy	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	1,433.5371	1,433.5371	0.0488	0.0113	1,438.1279
Mobile	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345
Waste						0.0000	0.0000		0.0000	0.0000	68.2090	0.0000	68.2090	4.0310	0.0000	168.9850
Water						0.0000	0.0000		0.0000	0.0000	10.0129	187.0901	197.1029	1.0357	0.0251	230.4816
Total	**2.8547**	**4.3106**	**15.8057**	**0.0433**	**3.4583**	**0.0811**	**3.5394**	**0.9270**	**0.0789**	**1.0059**	**78.2219**	**5,434.9098**	**5,513.1317**	**5.3134**	**0.0365**	**5,656.8476**

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	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186
Energy	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	1,424.9873	1,424.9873	0.0484	0.0113	1,429.5584
Mobile	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345
Waste						0.0000	0.0000		0.0000	0.0000	16.3702	0.0000	16.3702	0.9675	0.0000	40.5564
Water						0.0000	0.0000		0.0000	0.0000	8.0103	162.1488	170.1591	0.8290	0.0202	196.8908
Total	**2.8547**	**4.3106**	**15.8057**	**0.0433**	**3.4583**	**0.0811**	**3.5394**	**0.9270**	**0.0789**	**1.0059**	**24.3805**	**5,401.4188**	**5,425.7993**	**2.0428**	**0.0315**	**5,486.2588**

	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	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**68.83**	**0.62**	**1.58**	**61.55**	**13.69**	**3.02**

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	10/1/2019	11/15/2019	6	40	
2	Site Preparation	Site Preparation	5/1/2020	6/2/2020	6	28	
3	Grading	Grading	6/3/2020	7/18/2020	6	40	
4	Building Construction	Building Construction	7/19/2020	5/18/2023	6	886	
5	Paving	Paving	5/19/2023	6/1/2023	6	12	
6	Architectural Coating	Architectural Coating	5/19/2023	6/8/2023	6	18	

Acres of Grading (Site Preparation Phase): 28

Acres of Grading (Grading Phase): 30

Acres of Paving: 0

Residential Indoor: 874,800; Residential Outdoor: 291,600; Non-Residential Indoor: 33,000; Non-Residential Outdoor: 11,000; Striped Parking Area: 12,984 (Architectural Coating – sqft)

OffRoad Equipment

7940 Lankershim Boulevard - with PDFs - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	2	8.00	158	0.38
Demolition	Off-Highway Trucks	1	2.00	402	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Off-Highway Trucks	1	4.00	402	0.38
Site Preparation	Rubber Tired Dozers	1	4.00	247	0.40
Site Preparation	Scrapers	1	4.00	367	0.48
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Excavators	1	4.00	158	0.38
Grading	Graders	1	4.00	187	0.41
Grading	Off-Highway Trucks	2	4.00	402	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	1	4.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	6.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	1	6.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	8.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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	6	12.00	3.00	280.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	5	10.00	17.00	924.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	14.00	55.00	11,125.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	85.00	3.00	10,632.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	10.00	1.00	24.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	1.00	18.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Demolition - 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					0.0388	0.0000	0.0388	5.8800e-003	0.0000	5.8800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0663	0.6800	0.3774	7.1000e-004		0.0335	0.0335		0.0311	0.0311	0.0000	63.2224	63.2224	0.0180	0.0000	63.6729
Total	**0.0663**	**0.6800**	**0.3774**	**7.1000e-004**	**0.0388**	**0.0335**	**0.0723**	**5.8800e-003**	**0.0311**	**0.0370**	**0.0000**	**63.2224**	**63.2224**	**0.0180**	**0.0000**	**63.6729**

3.2 Demolition - 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	1.3300e-003	0.0443	9.4100e-003	1.1000e-004	2.4100e-003	1.6000e-004	2.5600e-003	6.6000e-004	1.5000e-004	8.1000e-004	0.0000	10.9016	10.9016	7.7000e-004	0.0000	10.9208
Vendor	2.5000e-004	7.0900e-003	1.9400e-003	2.0000e-005	3.8000e-004	4.0000e-005	4.2000e-004	1.1000e-004	4.0000e-005	1.5000e-004	0.0000	1.5004	1.5004	1.0000e-004	0.0000	1.5029
Worker	1.2000e-003	1.0000e-003	0.0109	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.5281	2.5281	9.0000e-005	0.0000	2.5302
Total	**2.7800e-003**	**0.0524**	**0.0223**	**1.6000e-004**	**5.4200e-003**	**2.2000e-004**	**5.6300e-003**	**1.4700e-003**	**2.1000e-004**	**1.6800e-003**	**0.0000**	**14.9301**	**14.9301**	**9.6000e-004**	**0.0000**	**14.9539**

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					0.0152	0.0000	0.0152	2.2900e-003	0.0000	2.2900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.4700e-003	0.0367	0.3976	7.1000e-004		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	63.2224	63.2224	0.0180	0.0000	63.6728
Total	**8.4700e-003**	**0.0367**	**0.3976**	**7.1000e-004**	**0.0152**	**1.1300e-003**	**0.0163**	**2.2900e-003**	**1.1300e-003**	**3.4200e-003**	**0.0000**	**63.2224**	**63.2224**	**0.0180**	**0.0000**	**63.6728**

3.2 Demolition - 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	1.3300e-003	0.0443	9.4100e-003	1.1000e-004	2.4100e-003	1.6000e-004	2.5600e-003	6.6000e-004	1.5000e-004	8.1000e-004	0.0000	10.9016	10.9016	7.7000e-004	0.0000	10.9208
Vendor	2.5000e-004	7.0900e-003	1.9400e-003	2.0000e-005	3.8000e-004	4.0000e-005	4.2000e-004	1.1000e-004	4.0000e-005	1.5000e-004	0.0000	1.5004	1.5004	1.0000e-004	0.0000	1.5029
Worker	1.2000e-003	1.0000e-003	0.0109	3.0000e-005	2.6300e-003	2.0000e-005	2.6500e-003	7.0000e-004	2.0000e-005	7.2000e-004	0.0000	2.5281	2.5281	9.0000e-005	0.0000	2.5302
Total	**2.7800e-003**	**0.0524**	**0.0223**	**1.6000e-004**	**5.4200e-003**	**2.2000e-004**	**5.6300e-003**	**1.4700e-003**	**2.1000e-004**	**1.6800e-003**	**0.0000**	**14.9301**	**14.9301**	**9.6000e-004**	**0.0000**	**14.9539**

3.3 Site Preparation - 2020

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					0.0570	0.0000	0.0570	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0287	0.3239	0.1651	3.9000e-004		0.0134	0.0134		0.0123	0.0123	0.0000	34.6723	34.6723	0.0112	0.0000	34.9527
Total	**0.0287**	**0.3239**	**0.1651**	**3.9000e-004**	**0.0570**	**0.0134**	**0.0704**	**0.0248**	**0.0123**	**0.0371**	**0.0000**	**34.6723**	**34.6723**	**0.0112**	**0.0000**	**34.9527**

3.3 Site Preparation - 2020

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	4.0800e-003	0.1372	0.0302	3.6000e-004	7.9400e-003	4.3000e-004	8.3700e-003	2.1800e-003	4.1000e-004	2.5900e-003	0.0000	35.6101	35.6101	2.4800e-003	0.0000	35.6722
Vendor	8.6000e-004	0.0258	6.9800e-003	6.0000e-005	1.5000e-003	1.2000e-004	1.6200e-003	4.3000e-004	1.1000e-004	5.5000e-004	0.0000	5.9125	5.9125	3.8000e-004	0.0000	5.9219
Worker	6.5000e-004	5.2000e-004	5.7600e-003	2.0000e-005	1.5300e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4299	1.4299	5.0000e-005	0.0000	1.4310
Total	**5.5900e-003**	**0.1635**	**0.0430**	**4.4000e-004**	**0.0110**	**5.6000e-004**	**0.0115**	**3.0200e-003**	**5.3000e-004**	**3.5600e-003**	**0.0000**	**42.9526**	**42.9526**	**2.9100e-003**	**0.0000**	**43.0251**

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					0.0222	0.0000	0.0222	9.6600e-003	0.0000	9.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.8400e-003	0.0210	0.1906	3.9000e-004		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	34.6723	34.6723	0.0112	0.0000	34.9526
Total	**4.8400e-003**	**0.0210**	**0.1906**	**3.9000e-004**	**0.0222**	**6.4000e-004**	**0.0229**	**9.6600e-003**	**6.4000e-004**	**0.0103**	**0.0000**	**34.6723**	**34.6723**	**0.0112**	**0.0000**	**34.9526**

3.3 Site Preparation - 2020

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	4.0800e-003	0.1372	0.0302	3.6000e-004	7.9400e-003	4.3000e-004	8.3700e-003	2.1800e-003	4.1000e-004	2.5900e-003	0.0000	35.6101	35.6101	2.4800e-003	0.0000	35.6722
Vendor	8.6000e-004	0.0258	6.9800e-003	6.0000e-005	1.5000e-003	1.2000e-004	1.6200e-003	4.3000e-004	1.1000e-004	5.5000e-004	0.0000	5.9125	5.9125	3.8000e-004	0.0000	5.9219
Worker	6.5000e-004	5.2000e-004	5.7600e-003	2.0000e-005	1.5300e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.4299	1.4299	5.0000e-005	0.0000	1.4310
Total	**5.5900e-003**	**0.1635**	**0.0430**	**4.4000e-004**	**0.0110**	**5.6000e-004**	**0.0115**	**3.0200e-003**	**5.3000e-004**	**3.5600e-003**	**0.0000**	**42.9526**	**42.9526**	**2.9100e-003**	**0.0000**	**43.0251**

3.4 Grading - 2020

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					0.1414	0.0000	0.1414	0.0687	0.0000	0.0687	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0562	0.6001	0.3298	7.7000e-004		0.0261	0.0261		0.0241	0.0241	0.0000	67.3432	67.3432	0.0218	0.0000	67.8877
Total	**0.0562**	**0.6001**	**0.3298**	**7.7000e-004**	**0.1414**	**0.0261**	**0.1675**	**0.0687**	**0.0241**	**0.0927**	**0.0000**	**67.3432**	**67.3432**	**0.0218**	**0.0000**	**67.8877**

3.4 Grading - 2020

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	0.0491	1.6519	0.3641	4.3600e-003	0.0956	5.1400e-003	0.1007	0.0263	4.9200e-003	0.0312	0.0000	428.7476	428.7476	0.0299	0.0000	429.4942
Vendor	3.9900e-003	0.1192	0.0323	2.8000e-004	6.9300e-003	5.5000e-004	7.4800e-003	2.0000e-003	5.3000e-004	2.5300e-003	0.0000	27.3269	27.3269	1.7400e-003	0.0000	27.3703
Worker	1.2900e-003	1.0400e-003	0.0115	3.0000e-005	3.0700e-003	3.0000e-005	3.0900e-003	8.1000e-004	2.0000e-005	8.4000e-004	0.0000	2.8598	2.8598	9.0000e-005	0.0000	2.8620
Total	**0.0544**	**1.7721**	**0.4079**	**4.6700e-003**	**0.1056**	**5.7200e-003**	**0.1113**	**0.0291**	**5.4700e-003**	**0.0345**	**0.0000**	**458.9343**	**458.9343**	**0.0317**	**0.0000**	**459.7265**

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					0.0551	0.0000	0.0551	0.0268	0.0000	0.0268	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3900e-003	0.0407	0.3793	7.7000e-004		1.2500e-003	1.2500e-003		1.2500e-003	1.2500e-003	0.0000	67.3431	67.3431	0.0218	0.0000	67.8876
Total	**9.3900e-003**	**0.0407**	**0.3793**	**7.7000e-004**	**0.0551**	**1.2500e-003**	**0.0564**	**0.0268**	**1.2500e-003**	**0.0280**	**0.0000**	**67.3431**	**67.3431**	**0.0218**	**0.0000**	**67.8876**

3.4 Grading - 2020

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	0.0491	1.6519	0.3641	4.3600e-003	0.0956	5.1400e-003	0.1007	0.0263	4.9200e-003	0.0312	0.0000	428.7476	428.7476	0.0299	0.0000	429.4942
Vendor	3.9900e-003	0.1192	0.0323	2.8000e-004	6.9300e-003	5.5000e-004	7.4800e-003	2.0000e-003	5.3000e-004	2.5300e-003	0.0000	27.3269	27.3269	1.7400e-003	0.0000	27.3703
Worker	1.2900e-003	1.0400e-003	0.0115	3.0000e-005	3.0700e-003	3.0000e-005	3.0900e-003	8.1000e-004	2.0000e-005	8.4000e-004	0.0000	2.8598	2.8598	9.0000e-005	0.0000	2.8620
Total	**0.0544**	**1.7721**	**0.4079**	**4.6700e-003**	**0.1056**	**5.7200e-003**	**0.1113**	**0.0291**	**5.4700e-003**	**0.0345**	**0.0000**	**458.9343**	**458.9343**	**0.0317**	**0.0000**	**459.7265**

3.5 Building Construction - 2020

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	0.0942	0.8703	0.6663	1.2000e-003		0.0455	0.0455		0.0430	0.0430	0.0000	102.6353	102.6353	0.0234	0.0000	103.2202
Total	**0.0942**	**0.8703**	**0.6663**	**1.2000e-003**		**0.0455**	**0.0455**		**0.0430**	**0.0430**	**0.0000**	**102.6353**	**102.6353**	**0.0234**	**0.0000**	**103.2202**

3.5 Building Construction - 2020

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	7.5200e-003	0.2530	0.0558	6.7000e-004	0.0723	7.9000e-004	0.0731	0.0182	7.5000e-004	0.0189	0.0000	65.6707	65.6707	4.5700e-003	0.0000	65.7850
Vendor	7.7000e-004	0.0231	6.2500e-003	5.0000e-005	1.3400e-003	1.1000e-004	1.4500e-003	3.9000e-004	1.0000e-004	4.9000e-004	0.0000	5.2915	5.2915	3.4000e-004	0.0000	5.2999
Worker	0.0279	0.0225	0.2484	6.8000e-004	0.0661	5.6000e-004	0.0667	0.0176	5.2000e-004	0.0181	0.0000	61.6385	61.6385	1.9400e-003	0.0000	61.6871
Total	**0.0362**	**0.2986**	**0.3104**	**1.4000e-003**	**0.1398**	**1.4600e-003**	**0.1413**	**0.0361**	**1.3700e-003**	**0.0375**	**0.0000**	**132.6006**	**132.6006**	**6.8500e-003**	**0.0000**	**132.7720**

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	0.0146	0.1065	0.7084	1.2000e-003		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003	0.0000	102.6352	102.6352	0.0234	0.0000	103.2201
Total	**0.0146**	**0.1065**	**0.7084**	**1.2000e-003**		**1.7900e-003**	**1.7900e-003**		**1.7900e-003**	**1.7900e-003**	**0.0000**	**102.6352**	**102.6352**	**0.0234**	**0.0000**	**103.2201**

3.5 Building Construction - 2020

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	7.5200e-003	0.2530	0.0558	6.7000e-004	0.0723	7.9000e-004	0.0731	0.0182	7.5000e-004	0.0189	0.0000	65.6707	65.6707	4.5700e-003	0.0000	65.7850
Vendor	7.7000e-004	0.0231	6.2500e-003	5.0000e-005	1.3400e-003	1.1000e-004	1.4500e-003	3.9000e-004	1.0000e-004	4.9000e-004	0.0000	5.2915	5.2915	3.4000e-004	0.0000	5.2999
Worker	0.0279	0.0225	0.2484	6.8000e-004	0.0661	5.6000e-004	0.0667	0.0176	5.2000e-004	0.0181	0.0000	61.6385	61.6385	1.9400e-003	0.0000	61.6871
Total	**0.0362**	**0.2986**	**0.3104**	**1.4000e-003**	**0.1398**	**1.4600e-003**	**0.1413**	**0.0361**	**1.3700e-003**	**0.0375**	**0.0000**	**132.6006**	**132.6006**	**6.8500e-003**	**0.0000**	**132.7720**

3.5 Building Construction - 2021

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	0.1866	1.7428	1.4354	2.6400e-003		0.0865	0.0865		0.0819	0.0819	0.0000	226.2428	226.2428	0.0508	0.0000	227.5136
Total	**0.1866**	**1.7428**	**1.4354**	**2.6400e-003**		**0.0865**	**0.0865**		**0.0819**	**0.0819**	**0.0000**	**226.2428**	**226.2428**	**0.0508**	**0.0000**	**227.5136**

3.5 Building Construction - 2021

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	0.0158	0.5199	0.1212	1.4500e-003	0.0767	1.5600e-003	0.0783	0.0198	1.4900e-003	0.0213	0.0000	143.1592	143.1592	9.9400e-003	0.0000	143.4076
Vendor	1.4600e-003	0.0463	0.0126	1.2000e-004	2.9600e-003	9.0000e-005	3.0500e-003	8.5000e-004	9.0000e-005	9.4000e-004	0.0000	11.5730	11.5730	7.1000e-004	0.0000	11.5908
Worker	0.0572	0.0446	0.5031	1.4600e-003	0.1458	1.2000e-003	0.1470	0.0387	1.1100e-003	0.0398	0.0000	131.5507	131.5507	3.8700e-003	0.0000	131.6475
Total	**0.0745**	**0.6108**	**0.6368**	**3.0300e-003**	**0.2254**	**2.8500e-003**	**0.2283**	**0.0593**	**2.6900e-003**	**0.0620**	**0.0000**	**286.2829**	**286.2829**	**0.0145**	**0.0000**	**286.6459**

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	0.0321	0.2347	1.5615	2.6400e-003		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	226.2425	226.2425	0.0508	0.0000	227.5133
Total	**0.0321**	**0.2347**	**1.5615**	**2.6400e-003**		**3.9400e-003**	**3.9400e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**226.2425**	**226.2425**	**0.0508**	**0.0000**	**227.5133**

3.5 Building Construction - 2021

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	0.0158	0.5199	0.1212	1.4500e-003	0.0767	1.5600e-003	0.0783	0.0198	1.4900e-003	0.0213	0.0000	143.1592	143.1592	9.9400e-003	0.0000	143.4076
Vendor	1.4600e-003	0.0463	0.0126	1.2000e-004	2.9600e-003	9.0000e-005	3.0500e-003	8.5000e-004	9.0000e-005	9.4000e-004	0.0000	11.5730	11.5730	7.1000e-004	0.0000	11.5908
Worker	0.0572	0.0446	0.5031	1.4600e-003	0.1458	1.2000e-003	0.1470	0.0387	1.1100e-003	0.0398	0.0000	131.5507	131.5507	3.8700e-003	0.0000	131.6475
Total	**0.0745**	**0.6108**	**0.6368**	**3.0300e-003**	**0.2254**	**2.8500e-003**	**0.2283**	**0.0593**	**2.6900e-003**	**0.0620**	**0.0000**	**286.2829**	**286.2829**	**0.0145**	**0.0000**	**286.6459**

3.5 Building Construction - 2022

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	0.1687	1.5563	1.4123	2.6400e-003		0.0742	0.0742		0.0703	0.0703	0.0000	226.3039	226.3039	0.0504	0.0000	227.5635
Total	**0.1687**	**1.5563**	**1.4123**	**2.6400e-003**		**0.0742**	**0.0742**		**0.0703**	**0.0703**	**0.0000**	**226.3039**	**226.3039**	**0.0504**	**0.0000**	**227.5635**

3.5 Building Construction - 2022

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	0.0151	0.4825	0.1199	1.4400e-003	0.0767	1.3500e-003	0.0781	0.0198	1.2900e-003	0.0211	0.0000	141.4568	141.4568	9.7800e-003	0.0000	141.7014
Vendor	1.3700e-003	0.0440	0.0119	1.2000e-004	2.9600e-003	8.0000e-005	3.0400e-003	8.5000e-004	8.0000e-005	9.3000e-004	0.0000	11.4714	11.4714	6.9000e-004	0.0000	11.4885
Worker	0.0537	0.0403	0.4635	1.4000e-003	0.1458	1.1600e-003	0.1469	0.0387	1.0700e-003	0.0398	0.0000	126.9264	126.9264	3.5000e-003	0.0000	127.0138
Total	**0.0701**	**0.5668**	**0.5953**	**2.9600e-003**	**0.2254**	**2.5900e-003**	**0.2280**	**0.0593**	**2.4400e-003**	**0.0618**	**0.0000**	**279.8546**	**279.8546**	**0.0140**	**0.0000**	**280.2037**

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	0.0321	0.2347	1.5615	2.6400e-003		3.9400e-003	3.9400e-003		3.9400e-003	3.9400e-003	0.0000	226.3036	226.3036	0.0504	0.0000	227.5633
Total	**0.0321**	**0.2347**	**1.5615**	**2.6400e-003**		**3.9400e-003**	**3.9400e-003**		**3.9400e-003**	**3.9400e-003**	**0.0000**	**226.3036**	**226.3036**	**0.0504**	**0.0000**	**227.5633**

3.5 Building Construction - 2022

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	0.0151	0.4825	0.1199	1.4400e-003	0.0767	1.3500e-003	0.0781	0.0198	1.2900e-003	0.0211	0.0000	141.4568	141.4568	9.7800e-003	0.0000	141.7014
Vendor	1.3700e-003	0.0440	0.0119	1.2000e-004	2.9600e-003	8.0000e-005	3.0400e-003	8.5000e-004	8.0000e-005	9.3000e-004	0.0000	11.4714	11.4714	6.9000e-004	0.0000	11.4885
Worker	0.0537	0.0403	0.4635	1.4000e-003	0.1458	1.1600e-003	0.1469	0.0387	1.0700e-003	0.0398	0.0000	126.9264	126.9264	3.5000e-003	0.0000	127.0138
Total	**0.0701**	**0.5668**	**0.5953**	**2.9600e-003**	**0.2254**	**2.5900e-003**	**0.2280**	**0.0593**	**2.4400e-003**	**0.0618**	**0.0000**	**279.8546**	**279.8546**	**0.0140**	**0.0000**	**280.2037**

3.5 Building Construction - 2023

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	0.0590	0.5412	0.5272	1.0000e-003		0.0246	0.0246		0.0233	0.0233	0.0000	85.3333	85.3333	0.0188	0.0000	85.8039
Total	**0.0590**	**0.5412**	**0.5272**	**1.0000e-003**		**0.0246**	**0.0246**		**0.0233**	**0.0233**	**0.0000**	**85.3333**	**85.3333**	**0.0188**	**0.0000**	**85.8039**

3.5 Building Construction - 2023

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	3.7200e-003	0.1194	0.0410	5.2000e-004	0.0717	2.1000e-004	0.0719	0.0180	2.0000e-004	0.0182	0.0000	51.1078	51.1078	3.4200e-003	0.0000	51.1934
Vendor	3.8000e-004	0.0125	4.0200e-003	4.0000e-005	1.1100e-003	1.0000e-005	1.1300e-003	3.2000e-004	1.0000e-005	3.4000e-004	0.0000	4.1893	4.1893	2.3000e-004	0.0000	4.1950
Worker	0.0190	0.0137	0.1607	5.1000e-004	0.0550	4.3000e-004	0.0554	0.0146	3.9000e-004	0.0150	0.0000	46.0999	46.0999	1.1900e-003	0.0000	46.1295
Total	**0.0231**	**0.1456**	**0.2057**	**1.0700e-003**	**0.1278**	**6.5000e-004**	**0.1284**	**0.0329**	**6.0000e-004**	**0.0335**	**0.0000**	**101.3969**	**101.3969**	**4.8400e-003**	**0.0000**	**101.5179**

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	0.0121	0.0885	0.5887	1.0000e-003		1.4800e-003	1.4800e-003		1.4800e-003	1.4800e-003	0.0000	85.3332	85.3332	0.0188	0.0000	85.8038
Total	**0.0121**	**0.0885**	**0.5887**	**1.0000e-003**		**1.4800e-003**	**1.4800e-003**		**1.4800e-003**	**1.4800e-003**	**0.0000**	**85.3332**	**85.3332**	**0.0188**	**0.0000**	**85.8038**

3.5 Building Construction - 2023

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	3.7200e-003	0.1194	0.0410	5.2000e-004	0.0717	2.1000e-004	0.0719	0.0180	2.0000e-004	0.0182	0.0000	51.1078	51.1078	3.4200e-003	0.0000	51.1934
Vendor	3.8000e-004	0.0125	4.0200e-003	4.0000e-005	1.1100e-003	1.0000e-005	1.1300e-003	3.2000e-004	1.0000e-005	3.4000e-004	0.0000	4.1893	4.1893	2.3000e-004	0.0000	4.1950
Worker	0.0190	0.0137	0.1607	5.1000e-004	0.0550	4.3000e-004	0.0554	0.0146	3.9000e-004	0.0150	0.0000	46.0999	46.0999	1.1900e-003	0.0000	46.1295
Total	**0.0231**	**0.1456**	**0.2057**	**1.0700e-003**	**0.1278**	**6.5000e-004**	**0.1284**	**0.0329**	**6.0000e-004**	**0.0335**	**0.0000**	**101.3969**	**101.3969**	**4.8400e-003**	**0.0000**	**101.5179**

3.6 Paving - 2023

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	3.7900e-003	0.0367	0.0514	8.0000e-005		1.8200e-003	1.8200e-003		1.6800e-003	1.6800e-003	0.0000	6.9086	6.9086	2.1900e-003	0.0000	6.9634
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.7900e-003**	**0.0367**	**0.0514**	**8.0000e-005**		**1.8200e-003**	**1.8200e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**6.9086**	**6.9086**	**2.1900e-003**	**0.0000**	**6.9634**

3.6 Paving - 2023

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	6.0000e-005	2.0200e-003	6.9000e-004	1.0000e-005	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.8662	0.8662	6.0000e-005	0.0000	0.8677
Vendor	1.0000e-005	4.3000e-004	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1420	0.1420	1.0000e-005	0.0000	0.1422
Worker	2.3000e-004	1.6000e-004	1.9200e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5515	0.5515	1.0000e-005	0.0000	0.5519
Total	**3.0000e-004**	**2.6100e-003**	**2.7500e-003**	**2.0000e-005**	**9.1000e-004**	**1.0000e-005**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**1.5598**	**1.5598**	**8.0000e-005**	**0.0000**	**1.5618**

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	1.2000e-003	5.7200e-003	0.0592	8.0000e-005		1.9000e-004	1.9000e-004		1.9000e-004	1.9000e-004	0.0000	6.9086	6.9086	2.1900e-003	0.0000	6.9634
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.2000e-003**	**5.7200e-003**	**0.0592**	**8.0000e-005**		**1.9000e-004**	**1.9000e-004**		**1.9000e-004**	**1.9000e-004**	**0.0000**	**6.9086**	**6.9086**	**2.1900e-003**	**0.0000**	**6.9634**

3.6 Paving - 2023

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	6.0000e-005	2.0200e-003	6.9000e-004	1.0000e-005	2.1000e-004	0.0000	2.1000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.8662	0.8662	6.0000e-005	0.0000	0.8677
Vendor	1.0000e-005	4.3000e-004	1.4000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.1420	0.1420	1.0000e-005	0.0000	0.1422
Worker	2.3000e-004	1.6000e-004	1.9200e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5515	0.5515	1.0000e-005	0.0000	0.5519
Total	**3.0000e-004**	**2.6100e-003**	**2.7500e-003**	**2.0000e-005**	**9.1000e-004**	**1.0000e-005**	**9.1000e-004**	**2.4000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**1.5598**	**1.5598**	**8.0000e-005**	**0.0000**	**1.5618**

3.7 Architectural Coating - 2023

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					
Archit. Coating	0.3106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3000e-003	0.0156	0.0217	4.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	3.0639	3.0639	1.8000e-004	0.0000	3.0685
Total	**0.3129**	**0.0156**	**0.0217**	**4.0000e-005**		**8.5000e-004**	**8.5000e-004**		**8.5000e-004**	**8.5000e-004**	**0.0000**	**3.0639**	**3.0639**	**1.8000e-004**	**0.0000**	**3.0685**

3.7 Architectural Coating - 2023

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	5.0000e-005	1.5200e-003	5.2000e-004	1.0000e-005	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.6497	0.6497	4.0000e-005	0.0000	0.6508
Vendor	2.0000e-005	6.4000e-004	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2130	0.2130	1.0000e-005	0.0000	0.2133
Worker	1.7000e-004	1.2000e-004	1.4400e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4137	0.4137	1.0000e-005	0.0000	0.4139
Total	**2.4000e-004**	**2.2800e-003**	**2.1600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**1.2763**	**1.2763**	**6.0000e-005**	**0.0000**	**1.2780**

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					
Archit. Coating	0.3106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6000e-004	1.5500e-003	0.0220	4.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	3.0639	3.0639	1.8000e-004	0.0000	3.0685
Total	**0.3110**	**1.5500e-003**	**0.0220**	**4.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**3.0639**	**3.0639**	**1.8000e-004**	**0.0000**	**3.0685**

3.7 Architectural Coating - 2023

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	5.0000e-005	1.5200e-003	5.2000e-004	1.0000e-005	1.5000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.6497	0.6497	4.0000e-005	0.0000	0.6508
Vendor	2.0000e-005	6.4000e-004	2.0000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.2130	0.2130	1.0000e-005	0.0000	0.2133
Worker	1.7000e-004	1.2000e-004	1.4400e-003	0.0000	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4137	0.4137	1.0000e-005	0.0000	0.4139
Total	**2.4000e-004**	**2.2800e-003**	**2.1600e-003**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**2.0000e-004**	**0.0000**	**1.2763**	**1.2763**	**6.0000e-005**	**0.0000**	**1.2780**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345
Unmitigated	0.8860	3.9453	11.1710	0.0411	3.4583	0.0315	3.4898	0.9270	0.0293	0.9562	0.0000	3,802.7650	3,802.7650	0.1908	0.0000	3,807.5345

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	2,116.80	2,116.80	2116.80	7,233,427	7,233,427
Enclosed Parking with Elevator	0.00	0.00	0.00		
High Turnover (Sit Down Restaurant)	614.00	614.00	614.00	836,778	836,778
Pharmacy/Drugstore with Drive Thru	784.00	784.00	784.00	1,041,658	1,041,658
Total	3,514.80	3,514.80	3,514.80	9,111,863	9,111,863

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Pharmacy/Drugstore with Drive	16.60	8.40	6.90	7.50	73.50	19.00	38	13	49

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
High Turnover (Sit Down Restaurant)	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Pharmacy/Drugstore with Drive Thru	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install Energy Efficient Appliances

	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	1,072.1664	1,072.1664	0.0417	4.8100e-003	1,074.6409
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,080.7162	1,080.7162	0.0420	4.8500e-003	1,083.2104
NaturalGas Mitigated	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	352.8209	352.8209	6.7600e-003	6.4700e-003	354.9175
NaturalGas Unmitigated	0.0357	0.3102	0.1700	1.9400e-003		0.0246	0.0246		0.0246	0.0246	0.0000	352.8209	352.8209	6.7600e-003	6.4700e-003	354.9175

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					
Apartments Mid Rise	4.74257e+006	0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	253.0818	253.0818	4.8500e-003	4.6400e-003	254.5857
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Pharmacy/Drugstore with Drive Thru	22960	1.2000e-004	1.1300e-003	9.5000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2252	1.2252	2.0000e-005	2.0000e-005	1.2325
Total		**0.0356**	**0.3102**	**0.1700**	**1.9400e-003**		**0.0246**	**0.0246**		**0.0246**	**0.0246**	**0.0000**	**352.8209**	**352.8209**	**6.7600e-003**	**6.4700e-003**	**354.9175**

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	4.74257e+006	0.0256	0.2185	0.0930	1.3900e-003		0.0177	0.0177		0.0177	0.0177	0.0000	253.0818	253.0818	4.8500e-003	4.6400e-003	254.5857
Enclosed Parking with Elevator	0	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
High Turnover (Sit Down Restaurant)	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Pharmacy/Drugstore with Drive Thru	22960	1.2000e-004	1.1300e-003	9.5000e-004	1.0000e-005		9.0000e-005	9.0000e-005		9.0000e-005	9.0000e-005	0.0000	1.2252	1.2252	2.0000e-005	2.0000e-005	1.2325
Total		**0.0356**	**0.3102**	**0.1700**	**1.9400e-003**		**0.0246**	**0.0246**		**0.0246**	**0.0246**	**0.0000**	**352.8209**	**352.8209**	**6.7600e-003**	**6.4700e-003**	**354.9175**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.75117e+006	531.3978	0.0207	2.3800e-003	532.6242
Enclosed Parking with Elevator	1.2681e+006	384.8103	0.0150	1.7300e-003	385.6985
High Turnover (Sit Down Restaurant)	353120	107.1554	4.1600e-003	4.8000e-004	107.4027
Pharmacy/Drugstore with Drive Thru	189000	57.3527	2.2300e-003	2.6000e-004	57.4850
Total		**1,080.7162**	**0.0420**	**4.8500e-003**	**1,083.2104**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.72299e+006	522.8479	0.0203	2.3400e-003	524.0546
Enclosed Parking with Elevator	1.2681e+006	384.8103	0.0150	1.7300e-003	385.6985
High Turnover (Sit Down Restaurant)	353120	107.1554	4.1600e-003	4.8000e-004	107.4027
Pharmacy/Drugstore with Drive Thru	189000	57.3527	2.2300e-003	2.6000e-004	57.4850
Total		**1,072.1664**	**0.0417**	**4.8100e-003**	**1,074.6409**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186
Unmitigated	1.9331	0.0551	4.4648	2.6000e-004		0.0250	0.0250		0.0250	0.0250	0.0000	11.5177	11.5177	7.1200e-003	8.0000e-005	11.7186

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	0.1433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6545					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3000e-004	3.6500e-003	1.5500e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2264	4.2264	8.0000e-005	8.0000e-005	4.2515
Landscaping	0.1349	0.0514	4.4633	2.4000e-004		0.0247	0.0247		0.0247	0.0247	0.0000	7.2913	7.2913	7.0300e-003	0.0000	7.4671
Total	**1.9331**	**0.0551**	**4.4648**	**2.6000e-004**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**11.5177**	**11.5177**	**7.1100e-003**	**8.0000e-005**	**11.7186**

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	0.1433					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.6545					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3000e-004	3.6500e-003	1.5500e-003	2.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	4.2264	4.2264	8.0000e-005	8.0000e-005	4.2515
Landscaping	0.1349	0.0514	4.4633	2.4000e-004		0.0247	0.0247		0.0247	0.0247	0.0000	7.2913	7.2913	7.0300e-003	0.0000	7.4671
Total	**1.9331**	**0.0551**	**4.4648**	**2.6000e-004**		**0.0250**	**0.0250**		**0.0250**	**0.0250**	**0.0000**	**11.5177**	**11.5177**	**7.1100e-003**	**8.0000e-005**	**11.7186**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	170.1591	0.8290	0.0202	196.8908
Unmitigated	197.1029	1.0357	0.0251	230.4816

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	28.1465 / 17.7446	179.9674	0.9238	0.0224	209.7446
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	2.42827 / 0.154996	10.8877	0.0795	1.9100e-003	13.4459
Pharmacy/Drugstore with Drive Thru	0.986265 / 0.604485	6.2478	0.0324	7.9000e-004	7.2911
Total		**197.1029**	**1.0357**	**0.0251**	**230.4816**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	22.5172 / 17.7446	155.9386	0.7395	0.0180	179.7879
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	1.94262 / 0.154996	8.8146	0.0636	1.5300e-003	10.8615
Pharmacy/Drugstore with Drive Thru	0.789012 / 0.604485	5.4059	0.0259	6.3000e-004	6.2414
Total		**170.1591**	**0.8290**	**0.0202**	**196.8908**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	16.3702	0.9675	0.0000	40.5564
Unmitigated	68.2090	4.0310	0.0000	168.9850

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	198.72	40.3384	2.3839	0.0000	99.9366
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	95.2	19.3247	1.1421	0.0000	47.8762
Pharmacy/Drugstore with Drive Thru	42.1	8.5459	0.5051	0.0000	21.1722
Total		**68.2090**	**4.0310**	**0.0000**	**168.9850**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	47.6928	9.6812	0.5721	0.0000	23.9848
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
High Turnover (Sit Down Restaurant)	22.848	4.6379	0.2741	0.0000	11.4903
Pharmacy/Drugstore with Drive Thru	10.104	2.0510	0.1212	0.0000	5.0813
Total		**16.3702**	**0.9674**	**0.0000**	**40.5564**

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

Appendix B
Tree Report

L.A. GROUP
Design Works

October 30, 2018

Summer Land Partners Group, Inc.
5900 Sepulveda Blvd., Suite 580
Sherman Oaks, CA 91411
Attn: Manny Kozar

RE: 7940 Lankershim Mixed Use Project Tree Report

Manny,

A Tree Inventory and Tree Plot Plan was prepared by this firm on August 17, 2018, in accordance with City of Los Angeles Tree Plot Plan guidelines and Tree Protection Ordinance 177 404. Trees with trunk diameter of 4 inches or more, measured 4 ½ feet above grade were included.

There were 28 trees inventoried and noted on the attached Tree Plot Plan. Existing palm trees on site were also inventoried but were not included in the replacement quantity.

There were no Protected Trees as defined by Ordinance No. 177 404. All inventoried trees are proposed to be removed and replaced on a 1:1 basis with 24" box size trees.

Sincerely,





Robert Yamashita, ASLA
Landscape Architect

Attachment

L.A. GROUP
Design Works, Inc.
24013 Ventura Blvd Suite 201 Calabasas CA 91302
telephone: 818 251-9718 facsimile: 818 251-9719

TREE INVENTORY - 7924 Lankershim Blvd. North Hollywood CA 91605

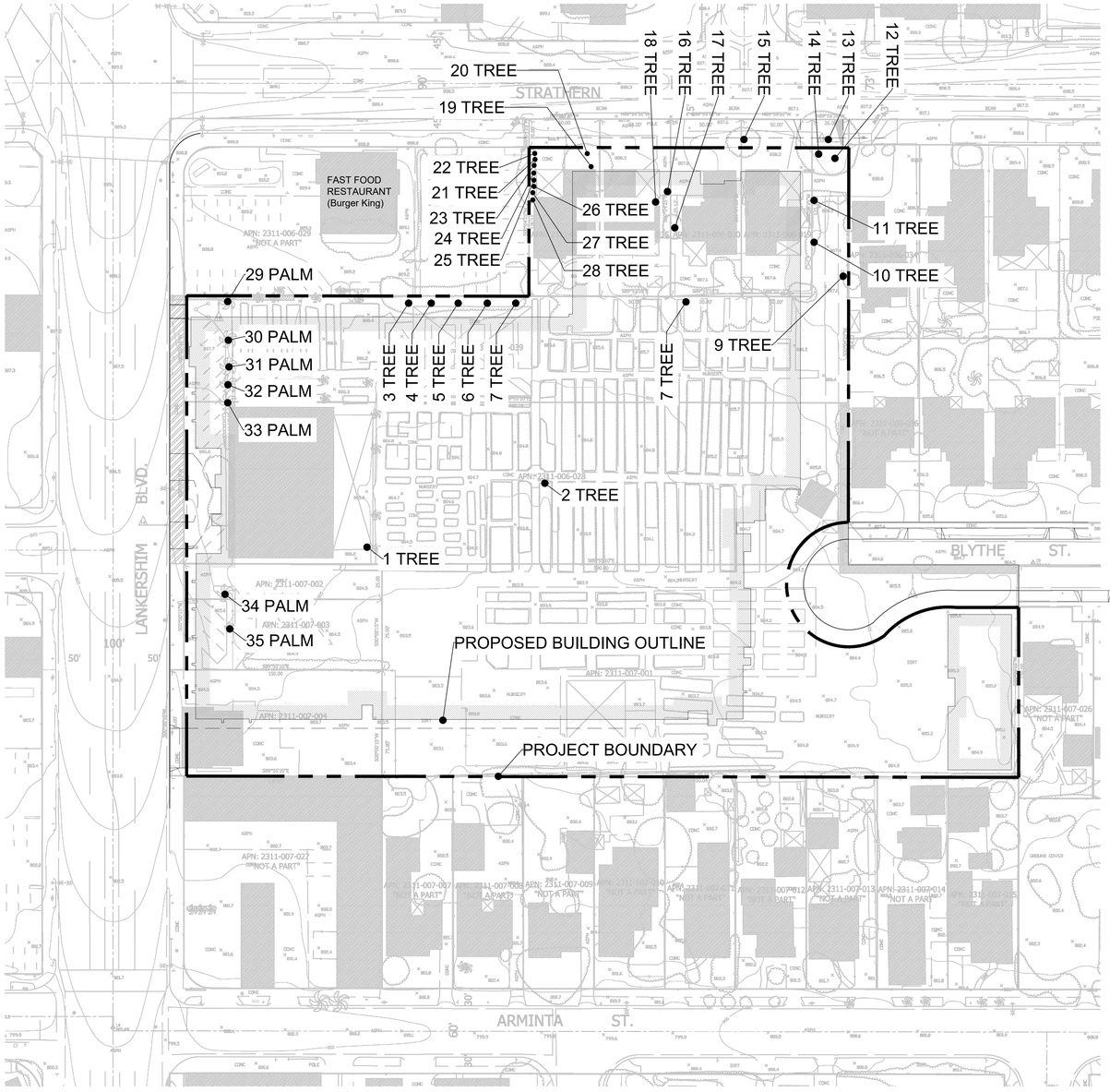
TREE #	Botanical/Common	Height	Spread	Trunk Cal. DBH	Remarks	Condition of Tree	Reason for Removal
1	Fraxinus / Ash	16'	12'	3", 4", 2"	Multi trunk	E	Project development
2	Schinus / Brazilian Pepper	15'	14'	6", 4"	Multi trunk	C	Project development
3	Ficus / Ficus tree	30'	6'	10", 8", 6"	Multi trunk	B	Project development
4	Ficus / Ficus tree	35'	12'	6"		B	Project development
5	Ficus / Ficus tree	30'	10'	10", 6"	Multi trunk	B	Project development
6	Ficus / Ficus tree	30'	20'	10", 8"	Multi trunk	B	Project development
7	Ficus / Ficus tree	30'	12'	8", 12"	Multi trunk	B	Project development
8	Olea / Olive	12'	12'	10"		C	Project development
9	Ailanthus altissima / Tree of Heaven	14'	11'	5", 6"	Multi trunk	E	Project development
10	Schinus / Brazilian Pepper	15'	14'	7", 5"	Multi trunk	C	Project development
11	Schinus / Brazilian Pepper	12'	8'	6", 4"	Multi trunk	C	Project development
12	Pinus / Pine	30'	20'	12"		B	Project development
13	Pinus / Pine	65'	20'	12"		B	Project development
14	Pinus / Pine	60'	20'	14"		B	Project development
15	Melia azedarch / Chinaberry	20'	14'	8"		C	Project development
16	Ailanthus altissima / Tree of Heaven	15'	8'	6"		E	Project development
17	Citrus spp / Lemon	10'	8'	4"		C	Project development
18	Cupaniopsis anacardioides / Carrotwood	18'	9'	10"		C	Project development
19	Ficus carica / Fig Tree	25'	15'	12"		E	Project development
20	Needle tree	40'	25'	10", 12"	Multi trunk	C	Project development
21	Araucaria / Norfolk Island Pine	18'	8"	5"		B	Project development
22	Juniperus / Juniper	10'	8'	3"		C	Project development
23	Juniperus / Juniper	10'	5'	3"		C	Project development
24	Juniperus / Juniper	10'	6'	3"		C	Project development
25	Juniperus / Juniper	10'	6'	3"		C	Project development
26	Juniperus / Juniper	10'	6'	3"		C	Project development
27	Juniperus / Juniper	10'	5'	3"		C	Project development
28	Juniperus / Juniper	10'	5'	3"		C	Project development
	TOTAL TREES TO BE REMOVED					28	

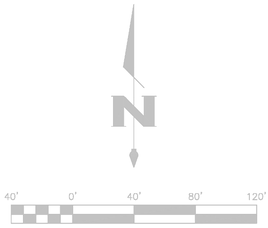
PALM TREE INVENTORY - Not counted toward tree replacement

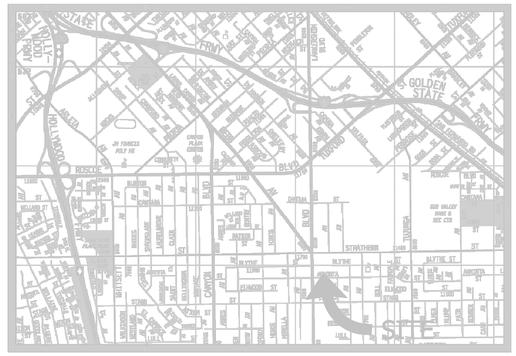
TREE #	Botanical/Common	Height	Spread	Trunk Diameter	Remarks
29	Syagrus romanzoffianum / Queen Palm	18'	12'	10"	
30	Syagrus romanzoffianum / Queen Palm	17'	10'	11"	
31	Syagrus romanzoffianum / Queen Palm	20'	12'	10"	
32	Syagrus romanzoffianum / Queen Palm	21'	11'	12"	
33	Syagrus romanzoffianum / Queen Palm	17'	10'	11"	
34	Syagrus romanzoffianum / Queen Palm	16'	10'	10"	
35	Syagrus romanzoffianum / Queen Palm	8'	6'	8"	

Legend

Condition of Tree
A = Excellent
B = Good
C = Fair
D = Dead
E = Poor







TREE INVENTORY - 7924 Lankershim Blvd. North Hollywood CA 91605

TREE #	Botanical/Common	Height	Spread	Trunk Cal. DBH	Remarks	Condition of Tree	Reason for Removal
1	Fraxinus / Ash	16'	12'	3", 4", 2"	Multi trunk	E	Project development
2	Schinus / Brazilian Pepper	15'	14'	6", 4"	Multi trunk	C	Project development
3	Ficus / Ficus tree	30'	6'	10", 8", 6"	Multi trunk	B	Project development
4	Ficus / Ficus tree	35'	12'	6"		B	Project development
5	Ficus / Ficus tree	30'	10'	10", 6"	Multi trunk	B	Project development
6	Ficus / Ficus tree	30'	20'	10", 8"	Multi trunk	B	Project development
7	Ficus / Ficus tree	30'	12'	8", 12"	Multi trunk	B	Project development
8	Olea / Olive	12'	12'	10"		C	Project development
9	Ailanthus altissima / Tree of Heaven	14'	11'	5", 6"	Multi trunk	E	Project development
10	Schinus / Brazilian Pepper	15'	14'	7", 5"	Multi trunk	C	Project development
11	Schinus / Brazilian Pepper	12'	8'	6", 4"	Multi trunk	C	Project development
12	Pinus / Pine	30'	20'	12"		B	Project development
13	Pinus / Pine	65'	20'	12"		B	Project development
14	Pinus / Pine	60'	20'	14"		B	Project development
15	Melia azedarch / Chinaberry	20'	14'	8"		C	Project development
16	Ailanthus altissima / Tree of Heaven	15'	8'	6"		E	Project development
17	Citrus spp / Lemon	10'	8'	4"		C	Project development
18	Cupaniopsis anacardioides / Carrotwood	18'	9'	10"		C	Project development
19	Ficus carica / Fig Tree	25'	15'	12"		E	Project development
20	Needle tree	40'	25'	10", 12"	Multi trunk	C	Project development
21	Araucaria / Norfolk Island Pine	18'	8"	5"		B	Project development
22	Juniperus / Juniper	10'	8'	3"		C	Project development
23	Juniperus / Juniper	10'	5'	3"		C	Project development
24	Juniperus / Juniper	10'	6'	3"		C	Project development
25	Juniperus / Juniper	10'	6'	3"		C	Project development
26	Juniperus / Juniper	10'	6'	3"		C	Project development
27	Juniperus / Juniper	10'	5'	3"		C	Project development
28	Juniperus / Juniper	10'	5'	3"		C	Project development
	TOTAL TREES TO BE REMOVED					28	

PALM TREE INVENTORY - Not counted toward tree replacement

TREE #	Botanical/Common	Height	Spread	Trunk Diameter	Remarks
29	Syagrus romanzoffianum / Queen Palm	18'	12'	10"	
30	Syagrus romanzoffianum / Queen Palm	17'	10'	11"	
31	Syagrus romanzoffianum / Queen Palm	20'	12'	10"	
32	Syagrus romanzoffianum / Queen Palm	21'	11'	12"	
33	Syagrus romanzoffianum / Queen Palm	17'	10'	11"	
34	Syagrus romanzoffianum / Queen Palm	16'	10'	10"	
35	Syagrus romanzoffianum / Queen Palm	8'	6'	8"	

Legend
Condition of Tree A = Excellent
B = Good
C = Fair
D = Dead
E = Poor

BENCHMARK:

ELEVATION = 809.987' (246.885 METERS) DATUM = NAVD 1988

SPBM *STMPD 08-23745 1983*; 1FT N/O N CURB STRATHERN ST; 3FT W/O BCR W/O WEBB AVE AND W/O LANKERSHIM BLVD.

ADJ: 2000

BASIS OF BEARING:

THE BEARING OF N00°00'15"E ALONG THE CENTERLINE OF LANKERSHIM BLVD. AS SHOWN ON TRACT NO. 16442 M.B. 415-22 WAS USED AS THE BASIS OF BEARING SHOWN ON THIS MAP.

THIS REPOST IS PREPARED IN ACCORDANCE WITH ORDINANCE 177404 (SUBDIVISION 12, SECTION 5, R. 4a.) OF THE CITY OF LOS ANGELES' MUNICIPAL CODE RELATING TO THE "TREE PRESERVATION GUIDELINES". IT SHALL BE THE POLICY OF THE CITY OF LOS ANGELS TO REQUIRE THE PRESERVATION OF INDIGENOUS, NATIVE TO CALIFORNIA, TREES (WHICH MEASURE 4" OR MORE IN CUMULATIVE DIAMETER AT 4 $\frac{1}{2}$" ABOVE GRADE) UNLESS COMPELLING REASONS JUSTIFY THE REMOVAL OF SUCH TREES.

"OF-SIZED" ORNAMENTAL TREES THAT MEASURE AT LEAST 8" OR MORE IN CUMULATIVE DIAMTER(S) AT 4"$\frac{1}{2}$" ABOVE EXISTING GRADE WILL ALSO BE INVENTORIED

Robert O. Yamashita, ASLA
Landscape Architect
CA Lic. No. 2008

REGISTERED LANDSCAPE ARCHITECT ROBERT O. YAMASHITA No. 2008 STATE OF CALIFORNIA
Signature
6/26/2019
Renewal Date

THERE ARE NO PROTECTED TREES AS DEFINED BY ORDINANCE NO. 177404. ALL INVENTORY TREES PROPOSED TO BE REMOVED. ON-SITE TREES SHALL BE REPLACED ON A 1:1 RATIO.

TOTAL NUMBER EXISTING SITE TREES = 28
PROPOSED REPLACEMENT = 28 TREES IN 24" BOX

EXISTING STREET TREES = 0

TREE PLOT PLAN

0 40' 80' 120' feet
SCALE: 1" = 40'

PREPARED BY:
Chris Nelson & Associates, inc.
PROFESSIONAL LAND SURVEYORS
31360 Via Colinas Suite, 104 Westlakevillage, CA 91362
Voice: 818.991.1040 Fax: 818.991.0614

PREPARED FOR:
AEGIS FINANCIAL GROUP
2236 HILLSBURY RD.
WESTLAKE VILLAGE, CA. 91361

AERIAL PHOTOGRAMMETRIC
TOPOGRAPHIC SURVEY
POR. OF LOT 24, M.R. 31 PG.'S 39-44
7924 LANKERSHIM BLVD.
NORTH HOLLYWOOD, CA. 91605

JOB NO. 06-1388
SCALE: 1" = 40'
DATE: FEB. 2007

SHEET NO.
1
OF 1 SHEETS

L.A. GROUP Design Works
Landscape Architecture
24013 Ventura Blvd. Suite 201
Calabasas, CA 91302
p 818.251-9718 f 818.251-9719

7940 LANKERSHIM MIXED USE
North Hollywood, CA 91605

SUMMER LAND PARTNERS GROUP, INC.
5900 Sepulveda Blvd. Suite 580 Sherman Oaks, CA 91411

Issue	Description	Date
1	PROGRESS	09-17-2018

Date *

Drawn By ROY

Sheet Title
TREE PLOT PLAN

Job No. 4563

Sheet No.
LT-1
of Sheet

Appendix C

Historic Resources Technical Report

7940 LANKERSHIM BOULEVARD
HISTORICAL RESOURCES TECHNICAL REPORT

PREPARED FOR:

Los Angeles Department of City Planning
200 North Spring Street, Room 763
Los Angeles, CA 90012

PREPARED BY:

ICF
555 W. 5th Street, Suite 3100
Los Angeles, CA 90013
Contact: Colleen Davis
213.312.1759

July 2019



Katrina Castañeda, Andrew Bursan, and Colleen Davis, 2019. *7940 Lankershim Boulevard, Historical Resources Technical Report*. July (ICF 00047.19) Los Angeles, CA. Prepared for Planning Department, City of Los Angeles, CA.

Executive Summary

This historical resources technical report discusses the potential for impacts under the California Environmental Quality Act (CEQA) on built environment historical resources resulting from the proposed development of the 7940 Lankershim Boulevard project in the North Hollywood area of Los Angeles, California (Project). The proposed Project involves demolishing the two existing buildings on 7916–7918 Lankershim Boulevard and 7934 Lankershim Boulevard (Project Site) and constructing a new seven-story mixed-use building with apartment units above commercial retail and restaurant use, with a total area of approximately 678,328 square feet.

This report explores the potential for both direct and indirect impacts of the Project on historical resources, as defined by CEQA. CEQA generally considers historical resources to be any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural history of California. This report is limited to objects, buildings, structures, sites, areas, and places. No records or manuscripts are present. Analysis of potential archaeological resources is located in a separate report, *7940 Lankershim Boulevard Cultural and Paleontological Resources Assessment Report*.

In studying the potential direct impacts to historical resources, this report evaluates the historical significance of the two buildings present at the Project Site. In studying the potential indirect impacts to historical resources in the indirect study area (as shown in Figure 2 in Section 1.3.2, *Study Area*, of this report), this report relies upon findings of the City of Los Angeles-published 2015 Historic Resources Survey Report for the Sun Valley-LA Tuna Canyon Community Plan Area.

As concluded in this report, none of the properties within the indirect study area were identified in the SurveyLA report. Moreover, the evaluations for the two existing buildings in the Project Site conclude that they are not historical resources. Because this report did not identify any historical resources for the purposes of CEQA, the proposed Project is not expected to have any direct or indirect impacts on built environment historical resources.

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Acronyms and Abbreviations

CCR	California Code of Regulations
CEQA	California Environmental Quality Act
City	City of Los Angeles
CRHR	California Register of Historical Resources
DRP	Department of Parks and Recreation
HCM	City of Los Angeles Historic-Cultural Monument
HPOZ	City of Los Angeles Historic Preservation Overlay Zone
NRHP	National Register of Historic Places
PRC	Public Resources Code
Project	7940 Lankershim Boulevard project in the North Hollywood area of Los Angeles, California
Project Site	7916–7918 Lankershim Boulevard and 7934 Lankershim Boulevard
SCCIC	South Central Coastal Information Center
SFV	San Fernando Valley
SFVJACC	San Fernando Valley Japanese American Community Center
SHPO	State Historic Preservation Officer
SurveyLA	Los Angeles Historic Resources Survey

Chapter 1
Introduction

At the request of DLA Piper LLC, ICF conducted a historical resources survey for the proposed mixed-use development, located at 7940 Lankershim Boulevard in the North Hollywood area of the city of Los Angeles (City). ICF conducted a historical resources survey for the Project to assist in partial fulfilment of the requirements of the California Environmental Quality Act (CEQA). This technical report describes the methods and results of the historical resources survey and provides technical recommendations for the Project.

1.1 Project Location

The Project is sited within the Sun Valley-La Tuna Canyon Community Plan area in the City of Los Angeles (see Figure 1, to follow), located at 7918–7946 North Lankershim Boulevard and 11650–11664 Strathern Street (Project Site), and encompasses the parcels associated with Assessor's Parcel Numbers 2311006019, 2311006028, 2311006030, 2311006035, 2311006038,2311006039, 2311007001, 2311007002, 2311007003, and 2311007004.

The Project Site is an irregularly shaped parcel bordered by North Lankershim Boulevard to the west and Strathern Street to the north. Blythe Street and single-family residential uses are located immediately east of the Project Site. Two commercial buildings are currently located on the Project Site: a one-story commercial building and a one-story office building. The Project Site also includes associated surface parking and storage areas.

1.2 Project Description

The Project would demolish the two existing buildings on the Project Site and construct a seven-story mixed-use building with residential units set above commercial, retail, and restaurant uses. The Project would provide parking within the building at grade level and within one subterranean level on the Project Site. One full-access driveway on Strathern Street and one limited-access driveway accommodating right-turn ingress and right-turn egress only on North Lankershim Boulevard would provide vehicle access to the new building.

Residential uses would include approximately 604,314 square feet of floor area and up to 432 units, with approximately 22,000 square feet of commercial, retail, and/or restaurant space provided at the ground level. Residential amenities would include an 8,000-square-foot community room, a 10,000-square-foot recreation room, and 84,600 square feet of open space. Overall, the Project would include up to a maximum of approximately 678,328 square feet of floor area.

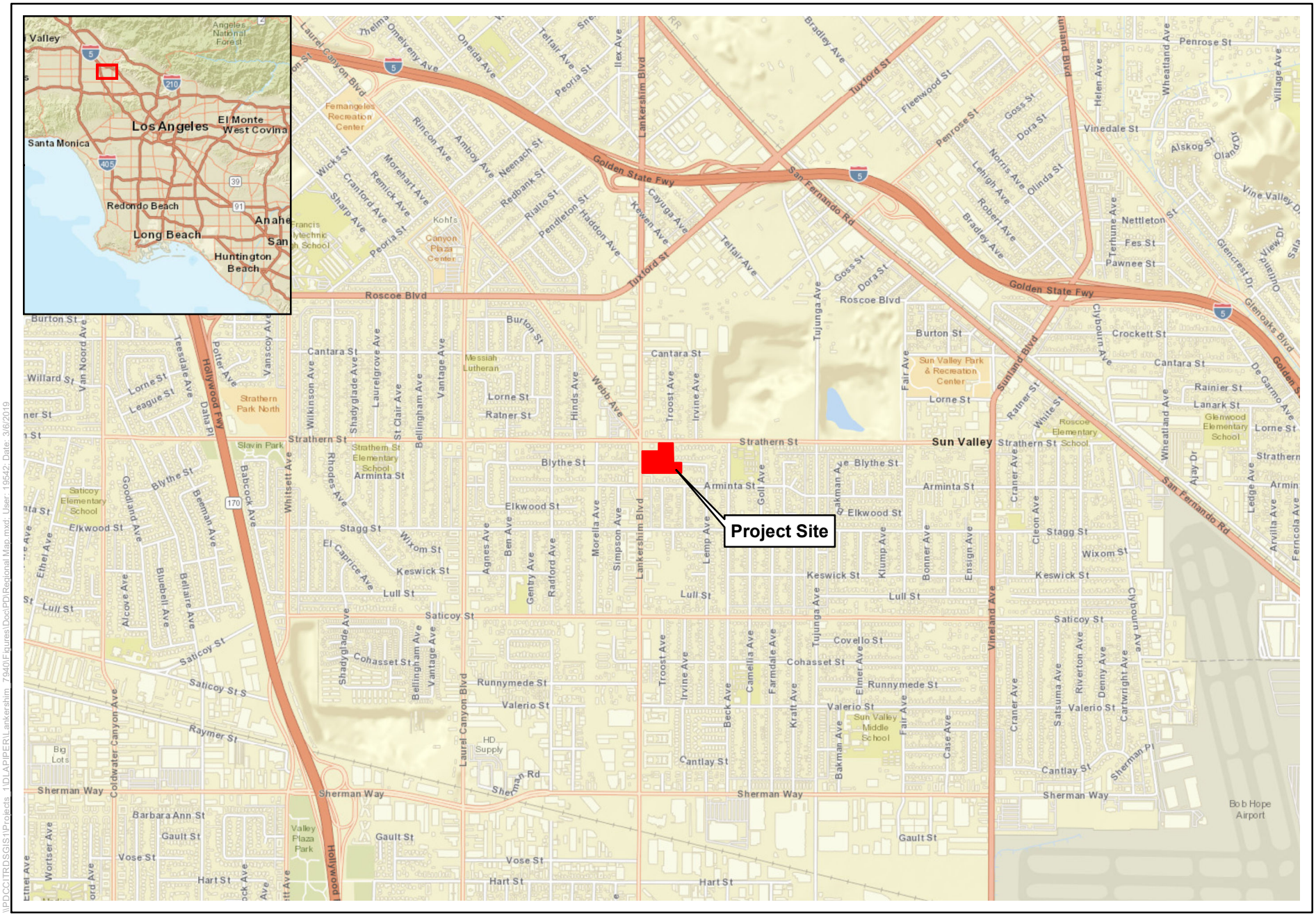


Figure 1
Regional and Vicinity Map

1.3 Project Background

1.3.1 Current Setting

The Project is sited at the southeast corner of North Lankershim Boulevard and Strathern Street in a highly urbanized location surrounded by a mix of land uses, including commercial, residential, industrial, office, and school uses. A fast food restaurant (Burger King) is located immediately northwest of the Project site, directly on the southeast corner of North Lankershim Boulevard and Strathern Street. Farther north along Lankershim Boulevard are various automotive, restaurant, and retail uses. Single-family residential uses are located to the north of the Project Site, along the opposite northern side of Strathern Street. To the west, along North Lankershim Boulevard, are automotive, restaurant, and other commercial uses. Farther west, land uses transition to residential uses. To the east, the adjoining parcels host residential uses. Farther to the east are Arminta Street Elementary School and Arminta Street Early Education Center. Immediately to south of the Project Site are single-family residential and automotive uses (Schiro's Collision Repairs). Farther to the south is Arminta Street, with various residential, commercial, and automotive uses; also to the south is a day care center (L.A. Childcare and Development) along Lankershim Boulevard.

1.3.2 Study Area

The study area established for the Project is defined as the geographic area within which Project activities have the potential to demolish, destroy, relocate, or alter historical resources or their immediate surroundings such that their significance would be materially impaired (see Figure 2). In the context of this Project, a historical resource could be a building, structure, site, area, or place. The direct study area includes legal parcels containing resources subject to demolition, destruction, relocation, or alteration as a result of the Project. The indirect study area includes legal parcels in the immediate surroundings of the Project. The study area includes only aboveground features. A separate document, *7940 Lankershim Boulevard Cultural and Paleontological Resources Assessment Report*, analyzes the potential for archaeological (belowground) resources.

The study area illustrated in Figure 2, below, includes the following:

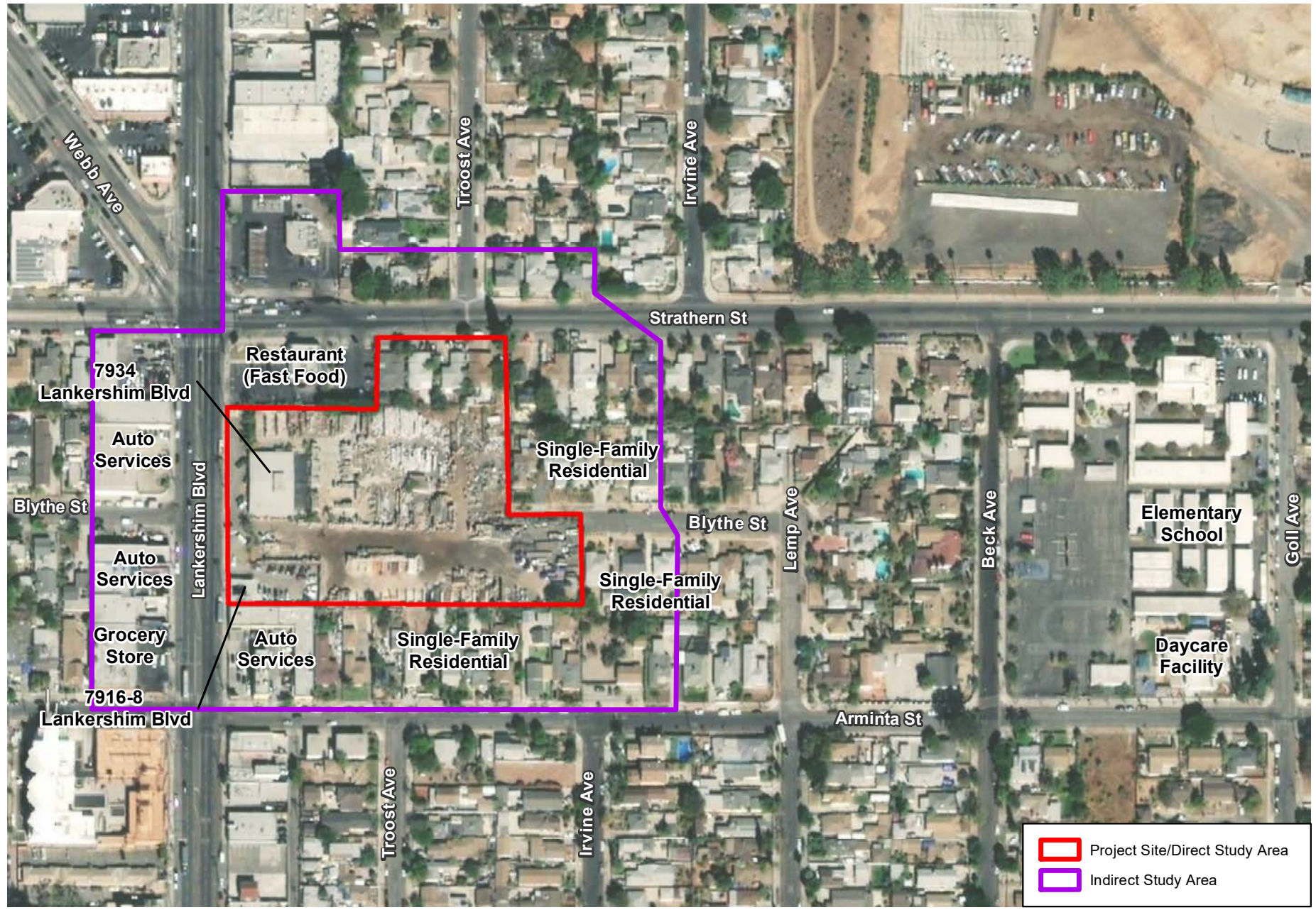
A. Parcels located on the west side of Lankershim Boulevard, between Strathern and Arminta Streets;

B. Parcels located on the north and south sides of Strathern Street, between Lankershim Boulevard, and approximately two parcels west of Irvine Avenue;

C. Parcels located on the north side of Arminta Street, between Lankershim Boulevard and approximately two parcels east of Irvine Avenue;

D. Parcels located on the north side of Blythe Street (five parcels east of the Project Site); and

E. Parcels located on the south side of Blythe Street (three parcels east of the Project Site).



\\PDCCITRDSGIS1\Projects_1\DLAPIPER\Lankershim_7940\Figures\Doc\Cultural\ProjectSiteStudyArea.mxd; User: 10642; Date: 5/2/2019

Figure 2
Aerial Photo of the Project Site/Direct Study Area and Indirect Study Area

1.3.3 Regulatory Framework

Federal, state, and local regulations recognize the public's interest in cultural resources and the public benefit of preserving them. These laws and regulations require analysis to consider how a project might affect cultural resources and take steps to avoid or reduce potential damage to them. A historical resource can be considered as any property valued (e.g., monetarily, aesthetically, or religiously) by a group of people. Valued properties can be historical in character or date to the pre-contact past (i.e., the time prior to contact with European Americans).

The proposed Project is subject to the requirements of CEQA and also may be affected by other state and municipal laws, regulations, and building codes regarding historical resources. Applicable authorities may include the California Register of Historical Resources (CRHR), the California State Historical Building Code, and the City of Los Angeles's Historic-Cultural Monuments (HCMs) and Historic Preservation Overlay programs. In addition, the City requires that historical resource studies, surveys, and reports, such as this technical report, consider the potential eligibility of properties for listing in the National Register of Historic Places (NRHP). Moreover, the appropriate treatment of historic properties at the municipal, state, and federal levels is informed by Standards and Guidelines promulgated by the U.S. Secretary of the Interior.

This document was prepared to satisfy requirements of the pertinent cultural resource regulations for historical resources.

Federal

National Register of Historic Places

First authorized by the Historic Sites Act of 1935, the NRHP was established by the National Historic Preservation Act of 1966 as "an authoritative guide to be used by federal, state, and local governments; private groups; and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. Ordinarily, birthplaces, cemeteries, or graves of historical figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; properties primarily commemorative in nature; and properties that have achieved significance within the past 50 years are typically not considered eligible for the NRHP, unless they satisfy certain conditions.

According to NRHP guidelines, the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess and meet any of the following criteria:

A. Association with events that have made a significant contribution to the broad patterns of our history.

B. Association with the lives of persons significant in our past.

C. Embodiment of the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or that represents a significant and distinguishable entity whose components may lack individual distinction.

D. Yielding, or having the potential to yield, information important in prehistory or history.

The NRHP requires that a resource must not only meet one of these criteria, but also possess *integrity*, defined as the ability of a property to convey historical significance. The evaluation of a resource's integrity must be grounded in an understanding of that resource's physical characteristics and how those characteristics relate to its significance. The NRHP recognizes seven aspects or qualities that, in various combinations, define the integrity of a property, including: location, design, setting, materials, workmanship, feeling, and association.

A property listed in or formally determined eligible for listing in the NRHP is automatically included in the CRHR and is, therefore, a historical resource for the purposes of CEQA.

Secretary of the Interior Standards for the Treatment of Historic Properties

In addition to providing criteria for evaluating the historic significance of properties, the Secretary of the Interior has developed Standards for the Treatment of Historic Properties. According to the National Park Service, these standards provide "common sense historic preservation principles" and are presented as "a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations" (National Park Service 2019).

There are "four distinct approaches to the treatment of historic properties: preservation, rehabilitation, restoration, and reconstruction." The selection of a treatment approach "depends on a variety of factors, including the property's historical significance, physical condition, proposed use, and intended interpretation" (National Park Service 2019). Rehabilitation is the most commonly applied approach and is generally used to guide adaptive reuse projects and new construction adjacent to historic properties (36 Code of Federal Regulations, Part 67).

State

California Register of Historical Resources

The National Historic Preservation Act mandated the selection and appointment in each state of a State Historic Preservation Officer (SHPO). Each SHPO is tasked, among other duties, with maintaining an inventory of historic properties. In California, the state legislature established additional duties for the SHPO, which include the maintenance of the CRHR. Established in 1992 under California Public Resources Code (PRC) Section 5024.1, the CRHR serves as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent feasible, from substantial adverse change." As noted in California PRC Section 5024.1(c), the CRHR criteria broadly mirror the criteria of the NRHP. The CRHR criteria are found in California PRC Section 5024.1(c), which states that:

A resource may be listed as an historical resource in the California Register if it meets any of the following criteria:

1. Association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. Association with the lives of persons important to local, California, or national history; or
3. Embodiment of the distinctive characteristics of a type, period, region, or method or construction, or represents the work of a master, or possesses high artistic values; or

4. Yielding, or having the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The general rule is that a resource must be at least 50 years old to qualify for the CRHR. In addition, the resource must meet one or more of the aforementioned criteria and must possess *integrity*, defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." According to Title 14 California Code of Regulations (CCR) Section 4852(d), in order for a resource younger than 50 years to achieve significance, "sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance."

There are several ways for resources to be included in the CRHR. A resource can be listed in the CRHR based upon a nomination and public consideration process. Additionally, a resource that is subject to a discretionary action by a governmental agency may be evaluated for eligibility for the CRHR. As previously stated, properties listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

California Environmental Quality Act

Established in 1970, CEQA requires state and local government agencies to analyze and publicly disclose potentially significant environment impacts of proposed projects. Moreover, it requires the development and adoption of mitigation measures to lessen significant impacts. In Section 21060.5, the State CEQA guidelines define the environment to include "objects of historic…significance." The definition of "historical resources" is provided by Section 15064.5(a) of the State CEQA Guidelines. The following is an abbreviated and excerpted summary of this definition:

1. A resource listed in, or determined eligible by the State Historical Resources Commission, for listing in the CRHR.
2. A resource included in a local register of historical resources…or identified as significant in an historical resource survey…shall be presumed historically significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if it meets the criteria for listing in the CRHR.

Local

City of Los Angeles

The City provides for the protection and preservation of recognized cultural resources, including designated buildings, sites, objects, and districts, through two programs administered by the Los Angeles Department of City Planning. Firstly, the City designates local landmarks, which it calls Historic-Cultural Monuments (HCMs), according to the Section 22.171 of Article 1 (Cultural Heritage

Ordinance) of the Los Angeles Administrative Code. Secondly, the City recognizes local historic districts, which are referred to as Historic Preservation Overlay Zones (HPOZs), codified in Section 12.20.3 of the Los Angeles Municipal Code.

Historic-Cultural Monuments

The criteria for designation as an HCM are codified in Chapter 9, Section 22 of the City of Los Angeles Administrative Code. An HCM is any site (including significant trees or other plant life located thereon), building, or structure of particular historic or cultural significance to the City. A designated resource may include a site, building, or structure that:

- Is identified with important events of national, state, or local history or exemplifies significant contributions to the broad cultural, economic or social history of the nation, state, city, or community;
- Is associated with the lives of historic personages important to national, state, city, or local history; or
- Embodies the distinctive characteristics of a style, type, period, or method of construction, or represents a notable work of a master designer, builder, or architect whose individual genius influenced his or her age.

Pursuant to State CEQA Guidelines Section 15064.5(a)(2), HCMs are historical resources for the purposes of CEQA. Alterations or demolitions to sites that have been designated as HCMs are subject to review by the City of Los Angeles Cultural Heritage Commission.

Historic Preservation Overlay Zones

The procedures for designating a HPOZ are found in Section 12.20.3 of the Los Angeles Municipal Code. HPOZs are historical resources for the purposes of CEQA pursuant to State CEQA Guidelines Section 15064.5(a). Alterations or demolitions to properties included in an HPOZ are subject to review by the City of Los Angeles Department of City Planning.

Chapter 2
Methods

This section describes the overall analytical methodology, including research and field methods used to identify and evaluate historical resources in the study area.

2.1 Analytical Methodology

For the purposes of analyzing the potential impacts to historical resources, ICF established a Project study area. The study area is the geographical area within which construction and operation of the proposed Project has the potential to cause impacts to historical resources. Direct effects occur at the same time and place as a proposed project, such as demolition of a historical resource. Indirect effects are separated from a proposed project by time and/or space. When they occur, indirect effects to historical resources typically relate to setting changes. Resources in the indirect study area will not be demolished, but adjacent demolition and new construction potentially change their setting. If the setting of a historical resource is essential to conveying its significance, demolition or new construction *adjacent* to that historical resource potentially impact it.. S*ee* 1.3.2 for details regarding the direct and indirect study areas.

ICF evaluated the CEQA historical resource status of objects, buildings, structures, sites, areas, and places within the study area. As detailed in Chapter 4 below, ICF did not identify historical resources in the study area. If ICF had identified historical resources, ICF would have analyzed potential Project impacts related to them.

For the purposes of the current analysis, ICF adopted aspects of the methodological approach for the citywide Los Angeles Historic Resources Survey (SurveyLA), including the limitation of its focus to resources constructed prior to 1981. SurveyLA's age threshold is more conservative, but generally consistent with the intent of registration programs such as the NRHP and CRHR. Properties that have achieved significance within the past 50 years are not considered eligible for the NRHP unless they conform to Criterion Consideration G. In order to be CRHR eligible, a resource less than 50 years can only be considered for eligibility if sufficient time has passed to assess its historical significance. The local HCM program lacks a specific age threshold for eligibility.

SurveyLA results for the study area are detailed in the *Sun Valley-La Tuna Canyon Community Plan Area Historic Resources Survey* (July 2015). SurveyLA's methodology records only positive results; that is, SurveyLA, records eligible historical resources, but does not record ineligible resources. SurveyLA did not identify any historical resources or eligible historical resources within the study area established for the Project. ICF adapted SurveyLA's methodology with respect to recordation.

Potential impacts to resources in the indirect study area are limited to setting changes. Because the potential for impact is relatively minor, ICF evaluated resources in the indirect study as potential CEQA historical resources but did not fully document these resources. Consistent with Survey LA methodology, ICF observed and photographed resources in the indirect study area and evaluated whether they met the criteria for inclusion in the NRHP, CRHR, or as an HCM. Based on this analysis, ICF affirmed the previous SurveyLA determinations: none of the resources located in the indirect study area appear eligible for inclusion in the NRHP, CRHR, or as an HCM. Similar to SurveyLA, ICF

did not fully evaluate and document these resources within this technical report or on Department of Parks and Recreation (DPR) Forms 523.

Resources in the direct study area, by contrast, are subject to demolition. ICF evaluated the historical significance of the resources within the direct study area, analyzed their status as potential CEQA historical resources, documented the results within this report and included that analysis on State of California Department of Parks and Recreation (DPR) Forms 523 attached as appendices to this technical report.

Research and field survey methods are detailed below.

2.2 Research Methods

ICF conducted general and property-specific archival research to establish a historic context for the study area and inform the identification and analysis of potential historical resources. Materials examined included previous cultural resources studies and records found during a formal literature review and records search, as well as primary and secondary resources from local repositories, including maps and photographs.

A cultural resources records search was conducted at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, on March 14, 2019. The search included a review of all recorded archaeological sites and recorded built environment resources within a 0.5-mile radius of the Project site, as well as a review of cultural resource reports on file. In addition, the California State Points of Historical Interest, the California Historical Landmarks, the CRHR, the NRHP, the City of Los Angeles HCM listings, and the California State Historic Resources Inventory were reviewed.

ICF consulted previous historic resources surveys and evaluations of historical resources in the vicinity of the Project Site, including the aforementioned Sun Valley-La Tuna Canyon Community Plan Area historical resources survey. SurveyLA developed extensive historic contexts for in two reports that related to resources in the project area: *Los Angeles Citywide Historic Context Statement: Japanese Americans in Los Angeles 1869–1970* (August 2018) and *Los Angeles Citywide Historic Context Statement: Commercial Development, 1859–1980, Neighborhood Commercial Development, 1880–1980* (August 2017). Two contexts developed by SurveyLA are relevant for evaluating the resources in the direct study area: Arterial Commercial Development and Japanese-Americans in the San Fernando Valley.

In addition, the following sources informed ICF's analysis of potential historical resources within the study area:

- Los Angeles County Tax Assessor Records
- Original and alteration building permits from the Los Angeles Department of Building and Safety
- Los Angeles Times Historical Newspaper Index
- Los Angeles Public Library's California Index and Tessa collections
- Scholarly books and articles
- Internet resources

2.3 Field Methods

ICF carried out field investigations of the Project Site and study area using standard industry-accepted methods appropriate for identifying and recording historical resources. ICF architectural historians Katrina Castañeda and Andrew Bursan conducted the historical resources survey on March 8, 2019, and March 20, 2019. Andrew Bursan meets the Secretary of the Interior's Professional Qualification Standards for History. Andrew and Katrina conducted a pedestrian survey of the study area that included photographing resources present within the study area (direct and indirect), observing existing conditions, noting alterations, and evaluating resources within the study area.

Chapter 3
Survey Results

3.1 Literature Review/Records Search

The SCCIC records search covered a 0.5-mile radius of the Project Site. According to SCCIC records, five cultural resource studies have been conducted within this radius (see Table 1). Copies of the reports were unavailable. None of the studies identified in the SCCIC records search included the Project Site in its analysis.

Table 1. Cultural Resources Surveys Conducted within a 0.5 Mile Radius of the Project Site

Number	Author	Year	Report Title
LA-4857	Curt Duke	2001	Cultural Resource Assessment for AT&T Fixed Wireless Services Facility Number La_026_a, County of Los Angeles, California
LA-05592	Deborah Gray	2000	Cultural Resource Assessment for Pacific Bell Mobile Services Facility La 959-09, in the County of Los Angeles, California
LA-09091	Wayne H. Bonner	2005	Cultural Resources Records Search Results and Site Visit for Cingular Wireless Nl-104-01 (sbc-lankershim), 7744 Lankershim Boulevard, North Hollywood, Los Angeles County, California
LA-10756	Jeanette McKenna	2010	A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/Expansion Project Area, Los Angeles County, California
LA-12538	Shannon Loftus	2012	Cultural Resource Records Search and Site Survey AT&T Site LAC026 Sun Valley Overlay, 8125 Lankershim Boulevard North Hollywood, Los Angeles County, California

The cultural resources records search conducted at the SCCIC identified one cultural resource within a 0.5-mile radius of the Project Site (see Table 2, below). The recorded resource is historical, rather than archaeological, in nature.

Table 2. Previously Recorded Sites within 0.5 Mile Radius of the Project Site

Number	Resource Type	Description	Status Code
19-190749	Building	8125 Lankershim Boulevard	6Y

3.2 Historic Resources Survey

The research and pedestrian survey described in Sections 2.2, *Research Methods*, and 2.3, *Research Methods*, of this technical report identified a total of 39 resources within the study area, including two resources in the direct study area and 37 resources in the indirect study area.

The two resources in the direct study area are listed in Table 3, below. Neither resource was identified as eligible by SurveyLA, nor was either documented. ICF evaluated these resources and documented them in the next chapter. Their status as CEQA historical resources is considered in detail in Chapter 4, *Assessment of Significance and Eligibility*, of this technical report and DPR Forms 523 attached as appendices.

Table 3. Resources Located in Direct Study Area

Address	Year Built
7916-7918 Lankershim Boulevard	1940
7934 Lankershim Boulevard	1968

Source: Los Angeles County Tax Assessor 2019

The 35 resources in the indirect study area that were constructed prior to 1981 are listed in Table 4, below. None of these resources were identified as eligible by SurveyLA, nor were they documented. ICF evaluated these resources and affirmed the SurveyLA ineligibility determination; they are not historical resources for the purposes of CEQA.

Table 4. Resources Located in the Indirect Study Area, Built Prior to 1981

Address	Year Built
7901 Lankershim Boulevard	1978
7906 Lankershim Boulevard	1969
7915 Lankershim Boulevard	1978
7919 Lankershim Boulevard	1956
7947 Lankershim Boulevard	1950
7980 Lankershim Boulevard	1972
8004 Lankershim Boulevard	1979
11671 Strathern Street	1962
11647 Strathern Street	1950
11641 Strathern Street	1950
11636 Strathern Street	1916
11635 Strathern Street	1950
11634 Strathern Street	1955
11630 Strathern Street	1955
11626 Strathern Street	1955
11620 Strathern Street	1956
11616 Blythe Street	1951
11619 Blythe Street	1954
11622 Blythe Street	1951

Address	Year Built
11627 Blythe Street	1956
11628 Blythe Street	1951
11631 Blythe Street	1956
11637 Blythe Street	1956
11641 Blythe Street	1956
11621 Arminta Street	1950
11625 Arminta Street	1950
11633 Arminta Street	1940
11639 Arminta Street	1950
11645 Arminta Street	1953
11649 Arminta Street	1956
11655 Arminta Street	1957
11659 Arminta Street	1959
11665 Arminta Street	1951
11667 Arminta Street	1958
11673 Arminta Street	1952

Source: Los Angeles County Tax Assessor 2019

Table 5, below, lists two resources in the indirect study area that were constructed after 1981. Typically resources of this relatively young age would be eligible only under the special circumstances discussed above. These resources were not surveyed in the context of SurveyLA. ICF evaluated these resources, but neither field survey nor research revealed any information to suggest that they conform to the special circumstances related to age, nor did any information uncovered reveal associations with important events, broad patterns in history, or important persons. These resources are not exemplary of a particular building type or style, nor do they represent the work of a master or embody high artistic values. These resources, therefore, are not considered historical for the purposes of CEQA.

Table 5. Properties Located in the Indirect Study Area, Built After 1981

Address	Year Built
7923 Lankershim Boulevard	1988
7945 Lankershim Boulevard	1983

Source: Los Angeles County Tax Assessor 2019

Chapter 4
Assessment of Significance and Eligibility

ICF evaluated and documented resources in the direct study area to determine their status as historical resources under CEQA. The historic resources survey for the Sun Valley-La Tuna Canyon Community Plan Area did not identify any of the resources in the study area, including the two in the direct study area, as eligible.

In order to properly evaluate a property for historical significance, it must be measured in the context of historical themes which must be relevant to the property's history. ICF performed historical research in order to extract these potential historical themes or associations. Then, ICF studied the relationship between each property and its pertinent historical themes, in order to determine whether the subject property is an excellent depiction of those themes.

As part of SurveyLA, the City and its consultants prepared a citywide historic context statement, which provides a framework for identifying and evaluating historical resources. This effort resulted in the identification of over 200 themes and sub-themes, ranging from ethnic and cultural themes to entertainment-related themes. Based on historical research of the subject properties, ICF identified three pertinent historic contexts under which to evaluate the properties, the first two have been adapted from SurveyLA's historic context statement:

- Arterial commercial development
- Japanese Americans in the SFV (SFV)
    - Nurseries
- Mid-Century Modern Architecture

The following historic context will be used for the evaluation of significance and eligibility of both properties. It begins with a brief overview of Los Angeles history, quickly pivoting to a more focused discussion of the SFV. Next, because both properties are examples of commercial development along an arterial, this report applied SurveyLA's context for arterial commercial development. The context continues with themes specific to the 7934 Lankershim Boulevard evaluation. Because the property hosted a Japanese-American-owned nursery for several decades, this context integrated SurveyLA's context regarding Japanese Americans, which spoke to nurseries as a type of commercial development. The context adds to the discussion of nurseries and concludes with a brief summary of Mid-Century Modern architecture.

4.1 Historic Context

Spanish occupation of California began in 1769, at Mission San Diego de Alcalá; Mission San Gabriel was established in in 1771. Established as a civilian settlement on September 4, 1781, at the behest of the Spanish royal governor of California, the City of Los Angeles began as the Los Angeles Pueblo. In 1797, in the northwest SFV, Franciscan missionaries established Mission San Fernando Rey de España. Mexico rebelled against Spain in 1810, and by 1821, Mexico, including California, achieved

independence. The Mexican Republic began to grant private land to citizens to encourage immigration to California; huge land grant ranchos took up large sections of land. In 1833, Mexico declared an end to the Missions and secularized the religious order's land holdings. The area became known as Rancho Ex-Mission San Fernando by the mid-nineteenth century.

At the turn of the century, railroads and other early signs of urban development appeared in the SFV. Southern Pacific and Pacific Electric connected cities, and the California Aqueduct's arrival in 1913 jumpstarted agricultural and ranching production, largely contributing to the SFV's legacy as rich farmland, which continued to boast swaths of agricultural land for wheat, citrus, and olives into the twentieth century (Roderick 2001).

Relatively undeveloped through the 1910s, the Sun Valley area was connected to industry in Los Angeles and San Bernardino through the construction of California State Route 99, beginning in 1915 (HRG 2015). Due to the formation of the motion picture industry, increased manufacturing, and boosterism, the coming decades saw a dramatic increase in population. During the 1920s, the population of Los Angeles nearly doubled, growing from approximately 0.75 million to 1.2 million. Rapid development of single-family residential tracts in newly platted neighborhoods would help alleviate the housing crisis.

The automobile enabled many to live even greater distances from jobs, retail, and services and lessened dependence on a central downtown for any or all of those needs. As the decades rolled by, the trend of decentralization gained momentum. Although the Los Angeles Basin was not yet fully built out, after 1930, City officials and developers turned their heads north, to the SFV, as an auspicious area for the City's expansion. Following World War II, returning servicemen, defense workers, and employees of the Lockheed Air Terminal in Burbank contributed further to the area's rapid growth, transforming the Sun Valley area from primarily agricultural land to highly urbanized in only a few decades (HRG 2015).

4.1.1 Arterial Commercial Development (1880–1950)

The street layout in the SFV is characterized by wide arterial boulevards, feeder streets, and regular street grids. Early surveyors of the 1880s platted large tracts in the area, making way for future subdivisions (Roderick 2001:42–45). The 1941 *Master Plan of Highways for Los Angeles County* led to several north-south and east-west routes and identifiable arterials, such as Sepulveda, Reseda, Van Nuys, and Lankershim boulevards and San Fernando Road, all of which span numerous cities. Although these streets had been laid out for decades, a growing postwar population necessitated development along these streets. As single-family residential tracts of housing were built out, thousands of residents filled the street grids of the SFV, and commercial development serving the new residents quickly followed. By the mid-1960s, in fact, planning experts noted the overabundance of commercially zoned land along arterials, "perhaps up to four times that needed by the number of residents"(Prosser 2017:15–16).

The 2017 SurveyLA Citywide Historic Context Statement for Commercial Development: Neighborhood Commercial Development names three patterns by which neighborhood-level commercial development occurred in the City. First, starting in the 1920s, builders constructed elite department stores and larger retailers as attached storefronts along or near streetcar lines, with parking in the rear. Second, following World War II, retailers began building and occupying freestanding buildings, serving new neighborhoods, and providing their own onsite parking. These buildings incorporated programmatic and advertisement-type designs. The third type of

development, the neighborhood shopping center, emerged by the mid-1950s. Characterized by onsite parking spaces in front of the building, businesses in a neighborhood shopping center could be in a stand-alone building or in a retail space as part of a collection of attached retail outlets (Prosser 2017:18).

Under this context, an eligible neighborhood commercial resource is one that illustrates how goods and services were provided within a neighborhood setting served by the automobile, "[illustrating] how community life was conducted within a commercial district," and reflects architectural styles and parking patterns from the property's period of construction "(Prosser 2017:35). In addition, an individually eligible property would need to retain integrity of location, design, materials, feeling, and association.

SurveyLA identified an eligible example of this context in the SFV as follows:

- **The Lankershim Commercial Corridor Historic District,** along the 5600 block of Lankershim Boulevard from Tujunga Avenue to Collins Street, located 3 miles south of the study area in North Hollywood, is significant as a late example of arterial commercial development. Dating from the 1930s to the 1950s, the properties that make up the district are tightly concentrated, neighborhood-scale storefronts that "maintain a relationship to the street and to each other that is found in older neighborhoods" (Prosser 2017:15).

4.1.2 Japanese Americans in the San Fernando Valley

Attracted by agricultural opportunities and vast open spaces, Japanese immigrants, most of whom had prior farming experience, first began to populate the SFV at the turn of the twentieth century. By 1905, at least 23 Japanese residents lived in the SFV, with at least a third of them concentrated in the west edge of present-day Glendale, along the Los Angeles River (Barraclough 2011:51).

During the 1910s and 1920s, most Japanese immigrants in the SFV settled on farmland in the northeast portion of the SFV on land encompassing the present-day communities of Sun Valley, Pacoima, Arleta, Sunland, Tujunga, Hansen Heights, and the northern end of North Hollywood. The area's open space and access to water at Big Tujunga Creek made it desirable for farming. Perhaps owing to their prior agricultural experience, Japanese farmers in the area proved adept at growing a variety of crops and established themselves quickly as independent farmers. While some immigrants worked as farm laborers, others started truck farms or small-scale farming operations (usually less than 60 acres) that produced a diverse mix of crops intended for market sale. Through hard work, innovative farming techniques, and highly cohesive intra-ethnic labor organizations, by the 1920s, Japanese farmers gained a virtual monopoly on the local production of crops such as berries, flowers, and many vegetables (Barraclough 2011:51–54). By the 1920 Census, 137 Japanese farming families lived in the northeast SFV. That number grew to 165 families by 1930, with heavy concentrations of farms and residences in surrounding neighborhoods, such as Pacoima, north of Glenoaks Boulevard (roughly 5 miles north of the study area), and in Arleta, near Laurel Canyon Boulevard (roughly 4 miles northwest of the study area).

Although the majority of the Japanese residents were involved in agricultural pursuits prior to World War II, a small concentration of Japanese-owned businesses and organizations sprung up in the diverse community of Pacoima in the 1920s and 1930s. Most Japanese in the area still traveled to Little Tokyo, near downtown Los Angeles, for Japanese related goods and services (HRG 2018:35). Most notable among local pre-war Japanese institutions was the San Fernando Valley Language Institute, which opened in Pacoima in 1924 to teach Japanese language and writing to the

Nisei (second-generation, American-born Japanese Americans) youth of immigrant flower and vegetable growers. As many as 3,200 Japanese, about half of whom were U.S. citizens, lived in the SFV prior by the beginning of World War II, before their forced removal and incarceration (Park 2014:30–31).

In the days, weeks, and months following the December 7, 1941 attack on Pearl Harbor, Federal Bureau of Investigation agents detained Japanese people, both immigrants and American citizens, throughout the Southland. The United States government forced farmers of Japanese descent in the SFV to vacate their farmlands in response to Executive Order 9066. Initially held in a Conservation Corps facility in Lakeview Terrace, government officials then sent detainees to permanent camps throughout the western United States. Many sold most of their personal belongings prior to their relocation to camps (Park 2014:31–33).

When the American government finally released Japanese Americans from camps at the end of World War II, the former detainees experienced structural and social difficulties with resettlement. Although many Japanese Americans from the SFV returned to the same area of the northeast SFV, many had lost considerable wealth due to dispersion of personal assets prior to relocation and were now subject to racially restrictive covenants in many communities. Due to limited income and racial exclusion in many neighborhoods, most Japanese Americans returning to the SFV sought alternative living arrangements in deserted army barracks and trailer camps. From 1945 to 1956, approximately 5,000 Japanese Americans, many of whom had pre-war roots in the SFV, lived in government trailer camps in the communities of Sun Valley and Burbank. During their time in these trailer camps, residents faced shoddy living conditions and a degree of backlash from nearby white homeowners.

By the mid-1950s, these camps ceased operation because most inhabitants had accumulated enough money to purchase or rent modest homes in eastern SFV communities (Park 2014:34–35). While some Japanese Americans returning to the SFV after World War II worked in traditional agriculture-related occupations, such as operating nurseries and working as gardeners, others worked for or operated fish markets, appliance repair shops, restaurants, hardware stores, and other working-class professions. Generally, Japanese Americans settled in communities east of Sepulveda Boulevard, where neighborhood racial covenants were not as restrictive as other parts of the SFV. These communities included Van Nuys, Sylmar, Arleta, and North Hollywood, where the study area is located. There were especially high concentrations of Japanese Americans in Sun Valley and Pacoima, where, per the 1960 Census, they totaled 2,364 (Tamaki 1997).

The 1948 Supreme Court decision in *Shelley v. Kraemer* and the 1968 Fair Housing Act gradually lifted enforcement of racially restrictive housing covenants. As a result, Japanese Americans gained greater access to higher education and more lucrative careers, and the demographic makeup of the SFV's Japanese community began to shift (Park 2014:38). By the 1970s, Japanese Americans had spread throughout the SFV, with access to housing in communities that formerly excluded them, and were no longer concentrated only in communities east of Sepulveda Boulevard. As of 1997, roughly 30,000 Japanese Americans lived in the SFV (MacGregor 1999).The following describes eligible examples of this context in the SFV:

- **The San Fernando Valley Japanese American Community Center** (SFVJACC), at 12953 Branford Street in Pacoima. Opened in 1959, the SFVJACC represents perhaps the most significant and enduring legacy of postwar Japanese American community activism and cultural solidarity in the SFV. Although located in Pacoima, the center has historically served

Japanese Americans from the entire SFV and beyond. The SFVJACC dates back to the 1920s-era San Fernando Valley Language Institute. During the postwar era, Japanese people in the SFV aimed to create a permanent center for their organization so as to preserve their cultural heritage and revive traditions of the pre-war community, as well as provide adult welfare programs and youth education (Park 2014:36–38). The SFVJACC first acquired the land for the community center in 1951; over the following eight years, the local Japanese American community raised $127,000 to build the community center facilities that Japanese American architect Kazumi Adachi designed. Since its creation, the SFVJACC has provided classes in traditional dancing and flower arrangement, language classes, and adult welfare. Today, the community center still remains an active and an important cultural hub for Japanese Americans residing in the SFV (Tamaki 1997).

- **The Hongwanji Buddhist Temple**, located at 9450 Remick Avenue in Pacoima, is located on the same block as the SFVJACC. Built in 1960, this was the SFV's first permanent Buddhist temple. University of Southern California School of Architecture-trained Japanese architect Y. Tom Makino designed the temple, adding to his portfolio of Mid-Century Modern religious institutions. Evident in its design, "the aesthetic minimalism of Mid-Century Modern style architecture and pavilion-plan designs taught at the university were consistent with Japanese American architects' cultural heritage" (HRG 2018:64, Appendix 15).

Japanese-American Nurseries

A nursery is a component of the agriculture business in which trees, shrubs, flowers, and other plants are grown and sold on one property. While nurseries are related to the cut-flower business, they are distinct in that in addition to plants being sold in nurseries, they are also grown onsite. The first recorded nursery was established in 1750, when William Prince opened a nursery in Flushing, New York (Pinney 1976:1). In 1908, Los Angeles had approximately 30 florists and 60 nurseries (Lyons 2017:3). Commercial horticulture is an integral component of the designed built environment in Los Angeles and nurseries are often expression of the city's Japanese-American historic context.

According to a guidebook for establishing a nursery business, facility aesthetics are unimportant because customers rarely set foot on the nursery property. For the same reason, nurseries need not be located in expensive or densely developed areas. Rather, a desirable location for a nursery is along a corridor or highly trafficked freeway (Pinney 1976:20–25). A typical nursery includes an office, acreage for growing plants, and greenhouse(s) equipped with water and heating systems (Yagasaki 1982:64).

Local Japanese American history overlaps with the history of nursery development, as Japanese Americans were heavily involved in the nursery business and other agricultural trades. Japanese Americans provided a skilled agricultural workforce and hundreds of nurseries throughout California prior to and following World War II. They also contributed pioneering farming techniques, such as growing mums with multiple blooms on one stalk and "bunching" (Lyons 2017:4).[1] As early as 1892, Japanese Americans, including Sotaro Endo, Jinnosuke Kobata, and Fusataro Adachi, established themselves in Downtown Los Angeles as prominent agriculturalists,

[1] "Bunching" is a Japanese method of tying vegetables together using raffia (a grass string). According to a 1924 *Los Angeles Times* article, prior to espousing the Japanese method, vegetable producers in San Fernando Valley would waste their crop because they "did not know how to bunch it properly for [the] market" (Gast 1924:H9).

and formed the leadership of the Southern California Flower Market (Yagasaki 1982:106–107). Japanese American gardeners organized in labor unions and trade associations, such as the League of Southern California Japanese Gardeners, and through the League's monthly publications of *Gadena no Tomo*, originally called *The Gardener's Monthly* (Hirahara 2000:77–87).

Following the Japanese American community's return from World War II internment, some former nursery operators had difficulty reentering the business. However, they convinced their friends to take part in the fairly unregulated and profitable business. As a result, dozens of Japanese Americans joined the nursery business (Hirahara 2000:79). Japanese American gardeners formally organized in 1949 as the Associated Gardeners of America and again in 1955 in response to the proposed Maloney Bill (Hirahara 2000:77–87).[2] According to Japanese telephone directories from 1956–1957, there were 148 Japanese-owned nurseries in Los Angeles, largely concentrated in Sawtelle and Gardena and scattered throughout other parts of Los Angeles (Barraclough 2012:54–55).

The 2018 *SurveyLA Historic Context Statement for Japanese Americans in Los Angeles* (HRG 2018:79–81) summarized the registration requirements for commercial properties (including nurseries) associated with Asian American businesses that are or may be:

- Strongly associated with the commercial and professional development of the Asian American community;
- Associated with a business that made important contributions to commercial growth and development in Los Angeles and specifically to the Asian American community;
- Founded by or a long-term location of a business significant to the Asian American community;
- Associated with a business/corporation that has gained regional or national importance; and
- Should retain integrity of location, design, feeling, materials, and association.

The following is an example of an eligible Japanese-American nursery identified by SurveyLA:

- **Sego Nursery at 12116 Burbank Boulevard in North Hollywood** is historically significant for its Googie-style architecture, as well as for its association with Sego Murakami, a locally prominent judo master who founded the nursery in 1948 upon his return from the Manzanar War Relocation Center. The Murakami Family continues to own and operate Sego Nursery (ARG 2013:35–36).

4.1.3 Mid-Century Modernism (1945-1970)

In the late 1950s and early 1960s in California, the Mid-Century Modern style arose from the Modern Movement as architects began to experiment with shapes, materials, and color in ways that deviated from "orthodox" Modernism. Southern California's architectural tradition of experimentation with building technology and style, as well as the region's climate and postwar population boom, made it an ideal breeding ground for the style's growth. Under the umbrella of post-World War II Modernism, Mid-Century Modernism is a version that is more informally expressionist. It is adjusted with subtle ornamentation, adding sensory expressions of its design vocabulary by playing with massing, components such as columns, fenestration patterns, protruding

[2] The Maloney Bill, if passed, would have required maintenance gardeners to be licensed by the State of California. The organization working against the bill's passage formed the Southern California Gardeners' Federation (Barraclough 2012:54–55).

and recessing elements, or palette. The style also manifests in the Post-and-Beam subtype, a result of advances in construction techniques that utilized steel or wood posts, beams, and expanses of glass to create uninterrupted glazed facades. Vernacular Mid-Century Modern buildings are characterized by low-pitched shed- or gable-roofed volumes, broadly overhanging eaves, and deeply recessed entries. Other features include planters integrated with exterior walls; slightly projecting mullions that add vertical accents to the horizontal emphasis of window bands and ribbons; screen walls, often of perforated concrete block or solid concrete block with two-dimensionally projecting geometric elements; canted walls, windows, or recessed entries, often with extensive glazing; and atrium or courtyard entry spaces. Mid-Century Modern-style commercial buildings typically incorporated bays of recessed and extensive plate-glass display windows (Christopher A. Joseph & Associates 2009:16; Historic Resources Group and Pasadena Heritage 2007:67).

Excellent examples of this style artfully combine organic palettes, novel building technologies, site planning techniques, and geometric angles and building forms to assert a relationship to the outdoors and express building materials. Overall, a property eligible under this context would display the spirit of modernism through its functionality, experimentation, and material expression.

Eligible examples of Mid-Century Modern style include:

- **Our Lady of the Holy Rosary Church** at 7800 Vineland Avenue in Sun Valley was designed by architect Thomas V. Merchant and built in 1964. Its expressionist design incorporates elliptical-perforated concrete screens and stylized Gothic arches. The front elevation presents a sculpture by acclaimed artist Roger Darricarrere, rendered espousing his *dalle de verre* technique, which incorporates pieces of colored slab glass set in a concrete matrix (HRG 2015:Appendix 22).
- **Pink Motel & Cadillac Jack's** at 9457-9475 San Fernando Road in Sun Valley is an example of roadside commercial architecture comprised of two buildings with a distinctive pink-and-blue paint scheme and monumental neon signage. The architect Joseph Thomulka incorporated decorative screen block walls, a playful fish-shaped swimming pool, and bands of storefront windows into its design.

4.2 7916–7918 Lankershim Boulevard

4.2.1 Architectural Description

Constructed in 1940, 7916–7918 Lankershim Boulevard is a one-story vernacular building with Mid-Century Modern elements (see Figure 3, below), built of wood-frame construction (City Permit No. VN00803). The building has a square footprint and is clad with laced stucco. It is topped with three types of roofs, reflecting building additions over time. The primary (west) elevation faces onto Lankershim Boulevard and features a shed roof. Two adjacent symmetrical storefronts compose the primary elevation, each with a central metal-frame glazed door with a transom, flanked by a pair of metal-frame windows. Two illuminated box signs above the storefronts, an illuminated box blade sign, and projecting plywood complete the front elevation. The north (side) elevation features two fixed metal-frame windows and a parapet roof. The south and east elevations are not visible from the public right-of-way, but aerial photography reveals a hipped roof at the southeastern quadrant of the building.

Figure 3. 7916-7918 Lankershim Boulevard, West Elevation, View Northeast



4.2.2 Property History

In 1940, H.R. Coburn applied for a building permit to construct a one-story 18-foot by 20-foot building for use as a carpenter shop and storage in association with a dwelling (no longer extant) to the east (City Permit No. 24625). Based on a review of permits at 7916 and 7918 Lankershim Boulevard, this appears to be the basis of the existing building at its southeast quadrant. In 1950, a 10-foot by 20-foot addition was added to the building's elevation facing Lankershim Boulevard. The resulting 20-foot by 28-foot garage was converted into a shop (City Permit No. VN24584). In 1951, Joe Alhadoff applied for a building permit to construct an 18-foot by 40-foot addition to the north wall, completing the existing 40-foot by 40-foot building (City Permit No. VN00803).

Although a review of Los Angeles City directories did not reveal any occupants of 7916–7918 Lankershim Boulevard, newspaper advertisements were found in 1961 for Everlast Screen Co., a showroom and store for window screens (*Valley News* 1961).

4.2.3 Evaluation of Significance

Criteria Related to Events or Broad Patterns of History

A: National Register of Historic Places

1: California Register of Historical Resources

1: City of Los Angeles Historic Cultural Monuments

The 2017 SurveyLA arterial commercial development historic context statement establishes a period of significance beginning in 1880 and ending in 1950, when postwar forms of neighborhood commercial development evolved into shopping centers and single-story storefront blocks. Eligible examples of the arterial commercial development form consist of series of adjacent storefronts creating a "street wall of continuous businesses" (Prosser 2017: 16). Parking is provided behind the buildings in one of two patterns. With the first pattern, these "street [walls] of continuous businesses" provided parking in the rear. The second pattern was characterized by freestanding structures, elite department stores, and dedicated rear parking lots. These examples more fully took advantage of their roadside location through "iconic design motives as large-scale advertisement" (Prosser 2017:16–18).

A 1952 aerial photograph of the subject building show sparse development in the area. The subject building and the no longer extant 1949 Mel-O-Dee Nursery building were sited on the east side of Lankershim Boulevard, north of the Project Site. A few buildings are sited on the west side of Lankershim Boulevard, likely examples of local businesses set along this arterial route. More extensive commercial development within the surrounding blocks did not appear until the 1960s and 1970s. Aerial photographs from later years indicate that parking was provided behind the building (NETR 2019).

The property at 7916–7918 Lankershim Boulevard consists of a pair of attached storefronts with on-site parking spaces provided behind the building. The subject building does not achieve the "street wall" effect expected of an eligible example. It does not conform to the broad pattern of arterial commercial development in Los Angeles. Nor did research uncover any other important related events or associations between the resource and broad patterns of history. Therefore, 7916–7918 Lankershim Boulevard is not eligible under Criteria A/1/1.

Criteria Related to Association with Significant Persons

B: National Register of Historic Places

2: California Register of Historical Resources

2: City of Los Angeles Historic Cultural Monuments

Newspaper research on this property and on its former owners and occupants, including H.R. Coburn, Joe Alhadoff, and Everlast Screen Co., did not suggest any potential local, regional, or national significance. Research also did not reveal associations to any other significant persons in history. Therefore, 7916–7918 Lankershim Boulevard is not eligible under Criteria B/2/2.

Criteria Related to Architectural Quality

C: National Register of Historic Places

3: California Register of Historical Resources

3 & 4: City of Los Angeles Historic Cultural Monuments

The building at 7916–7918 Lankershim Boulevard is an unornamented commercial building with a shed roof characteristic of the Mid-Century Modern architectural style. The original cladding was likely a smoother texture consistent with the mid-century period. Research has not uncovered an architect associated with the building. As a vernacular example of the style lacking original cladding, the expression of those materials, geometric shapes, and elements that highlight a relationship between the indoors and outdoors, this building appears to be a primarily utilitarian building that lacks a strong tie to the Mid-Century Modern style or any identifiable style, for that matter. Therefore, 7916–7918 Lankershim Boulevard is not eligible under Criteria C/3/3.

Criteria Related to Archaeology and/or Information Potential

D: National Register of Historic Places

4: California Register of Historical Resources

Constructed during the historic period (after 1769), the building's wood-frame construction has been thoroughly researched and is well understood. Research did not reveal other aspects of this resource that are likely to reveal important historical or prehistorical information. Therefore, 7916–7918 Lankershim Boulevard is unlikely to yield information important in prehistory or history, and is thus not considered significant under Criteria D/4. Please note that the potential for archaeological significance is analyzed in a separate report, *7940 Lankershim Boulevard Cultural and Paleontological Resources Assessment Report*.

Significance Summary

The building at 7916-7918 Lankershim Boulevard is not currently listed, nor had it been previously determined to be eligible for listing, in the NRHP, the CRHR, or as a City of Los Angeles HCM. This evaluation found that the building is not eligible for listing under any of the criteria discussed above.

4.3 7934 Lankershim Boulevard

4.3.1 Architectural Description

7934 Lankershim Boulevard is a large, one-story rectangular plan commercial building designed in the Mid-Century Modern style (see Figure 4, below). With wood-frame construction (City Permit No. VN18963/67), the 74-foot by 106-foot building faces west onto North Lankershim Boulevard. A Post-and-Beam subtype of the Mid-Century-Modern style, six of the front elevation's eight bays are composed of large expanses of dark-tinted glass and clerestory windows between wood posts. The outer ends of the front elevation and the two left bays are of vertical wood siding, and the building is topped with a low-pitched, front-gabled roof supported by projecting beams. A square monitor covered with vertical wood siding lights the inside of the building. The entrance at the front elevation is offset, featuring two fully-glazed double metal doors with sidelights. Lining the front elevation are integrated landscape planters with brick coping and cinder blocks that have been covered with painted stucco. The side elevations appear to be of vertical wood siding.

Figure 4. 7934 Lankershim Boulevard, West and South Elevations, view Northeast



Source: ICF 2019

4.3.2 Property History

Although the existing building was constructed in 1968, Allan and Carole Mori originally opened Mel-O-Dee Nursery at the subject property in 1949, housing their business on a mid-block property with a 30-foot by 40-foot lath house and an outdoor nursery in the rear (to the north and east) of the building (City Permit No. VN12785). The surrounding residential tract was developed in the 1950s.

The Mori family replaced the lath house with a new building in the late 1960s, commissioning local architect Ebbe Videriksen to design the building. They selected a design that would allow large displays and service counters to accommodate a growing business (City Permit No. VN12785); *Los Angeles Times* 1976:18). In January 1968, the City of Los Angeles issued a Certificate of Occupancy for a one-story and mezzanine 74-foot by 106-foot type V retail sales and display building with 16 parking spaces in front of the building (City Permit No. VN18963/67). In 1974, the 20-foot-tall, 70-square-foot acrylic face pole sign currently located south of the building was installed on the property (City Permit No. VN18963/67). In 1975, a *Los Angeles Times* article provided a drawing of the nursery (see Figure 5, below), noting its then-10-acre site (*Los Angeles Times* 1975). The following year, an advertisement in the *Los Angeles Times* provided a profile of Mel-O-Dee Nursery, noting the efforts of family members to continue the family business: their son, Norman, pursued a landscape design degree at Cal Poly Pomona and a contractor's license; Norman's friend, Clyde

Miyata, managed the nursery; and Allan and Carole's daughter, Cindy, attended Pierce College and the Elva May School of Floristry. All three worked at Mel-O-Dee Nursery (*Los Angeles Times* 1976).

Figure 5. Rendering of Mel-O-Dee Nursery in 1975



Source: *Los Angeles Times* 1975:6)

Again in 2000, a *Los Angeles Times* article highlighted Mel-O-Dee Nursery and provided a photograph of Norman Mori, Allan and Carole's son, at the business's second location in Chatsworth, which opened in the early 1980s. Norman noted that the numerous postwar nurseries in the SFV closed in the 1970s and 1980s, when rising property values and the aging of business owners convinced them to liquidate. According to the article, Norman's son also earned a degree in Landscape Architecture and planned to eventually run the nursery (Sommer 2000). That same year, the owners modified the property boundaries, first combining two properties, and then subdividing the single property.

Historical aerial photographs appear to depict rows of nursery plants on the property for decades, until the nursery stock began to shrink in 2004 and was removed entirely from the 7934 Lankershim property by 2014 (NETR 2019). The property currently houses a building materials retail store, with the rear of the property serving as a yard for building materials storage (see Figure 6).

Figure 6. Google Street View Image of Mel-O-Dee Nursery in 2011



Source: Google 2011.

4.3.3 Evaluation of Significance

Criteria Related to Events or Broad Patterns of History

A: National Register of Historic Places

1: California Register of Historical Resources

1: City of Los Angeles Historic Cultural Monuments

The nursery business is strongly associated with Japanese-American community development. Both before and after World War II, members of the Japanese-American community established many businesses related to horticulture and floriculture. Specifically, during the post-World War II period, Japanese Americans operated dozens of nurseries in Los Angeles.

Mel-O-Dee Nursery has served the SFV for 70 years. Newspaper articles from the 1970s and 2000s characterize Mel-O-Dee Nursery as a successful family business. The Mori family established the Mel-O-Dee Nursery in 1949, replaced the original building with the current building in 1968, and moved to a new location in Chatsworth, 15 miles west of the original location, in 2000. The Mel-O-Dee Nursery continues to operate in the Chatsworth location.

As a business, the Mel-O-Dee Nursery is directly associated with the resettlement of the Japanese American community in the Los Angeles area after their imprisonment during World War II. Allan and Carole Mori opened Mel-O-Dee Nursery in 1949, upon their release from imprisonment in the Santa Anita Assembly in Arcadia (Japanese-American Internee Data File 2005). The original 1949

building associated with the establishment of the Mori family's nursery business, however, is no longer extant.

As enforcement of racially restrictive covenants waned and antidiscrimination movements gained momentum during the 1960s and 70s, Japanese Americans gained greater access to educational opportunities, experienced upward mobility, expanded their professional and economic reach, and dispersed across the city (HRG 2018:67–73). Although horticulture and floriculture businesses persisted during this period, Japanese Americans increasingly engaged in professions requiring tertiary levels education, including architecture, teaching, and law. Members of this community also became heavily involved in the import/export business that burgeoned at this time between the United States and Japan.

The overall residential population of the SFV exploded during this period. Between 1947 and 1956, the Roscoe Trailer Camp, located approximately 1.5 miles from the project site, welcomed Japanese Americans returning from wartime incarceration. Approximately 6 miles north, in Pacoima, the eligible SFVJACC building rose in 1960 to serve the local community. Although the population of SFV Japanese Americans increased during this period, they were dispersed over a much wider geography than the older, established, concentrated enclaves, such as Little Tokyo, West Jefferson, and Sawtelle.

The existing 1968 building located at 7934 Lankershim Boulevard originally housed an individual, family-owned Japanese American nursery business in the SFV. It is not, however, importantly associated with the ethnic group during this period insofar as research has not uncovered any evidence that indicates that the property conforms to the registration requirements set forth by SurveyLA. Specifically, the existing building does not appear to be strongly associated with the commercial and professional development of the Asian American community; associated with a business that made important contributions to commercial growth and development in Los Angeles and specifically to the Asian American community; founded by or a long-term location of a business significant to the Asian American community; or associated with a business/corporation that has gained regional or national importance.

The 1968 building at 7934 Lankershim that once housed the Mel-O-Dee Nursery contrasts with the Sego Nursery located at 12116 W Burbank Boulevard. Sego Nursery. The Sego Nursery building dates to 1948. The business was established and the building constructed during the period when Japanese-Americans were returning from wartime incarceration and re-establishing themselves in Los Angeles. It continues to operate as a nursery. These direct associations, which the existing building at 7934 Lankershim lacks, render the Sego Nursery an eligible example.

Further, the 1968 construction of the building at 7934 Lankershim Boulevard sits outside of the period of significance for the Arterial Commercial Development context (1880–1950), and thus is ineligible within this context. Research uncovered neither important events related to this resource, nor associations between the resource and broad patterns of history.

For the reasons stated above, 7934 Lankershim Boulevard is not eligible under Criteria A/1/1.

Criteria Related to Association with Significant Persons

B: National Register of Historic Places

2: California Register of Historical Resources

2: City of Los Angeles Historic Cultural Monuments

Arizona-born Allan Akinobu Mori (1915–1996) and Carole Chiyono Mori (1915–1999), first-generation Japanese Americans, opened Mel-O-Dee Nursery in 1949. Before moving to California, they owned a grocery store in Colorado, and documentation suggests that Allan and Carole worked at the Colorado Steelworks in Amache, Colorado, until November 28, 1942. Carole and Allan relocated to the Santa Anita Assembly in Arcadia, California, as part of the Granada War Relocation Project (Japanese-American Internee Data File 2005). Allan's War Relocation Authority Form record indicates that he was a salesperson and that his father was a "Farm Operator [or] Manager." Carole's record indicates that she was a sales clerk and that her father was a "Farm Laborer" (Japanese-American Internee Data File 2005).

At the time of its construction in 1968, Allan and Carole Mori resided at 11664 Strathern Street, near their business located at 7934 Lankershim Boulevard. They owned the property until 2000. While they founded and sustained a successful local business, they do not appear to be individually historically significant in local, California, or national history. Research also did not reveal associations to any other significant persons in history. Therefore, 7934 Lankershim Boulevard is not eligible under Criteria B/2/2.

Criteria Related to Architectural Quality

C: National Register of Historic Places

3: California Register of Historical Resources

3: City of Los Angeles Historic Cultural Monuments

The building at 7934 Lankershim Boulevard is a fairly intact, albeit late and modest, example of Mid-Century Modern commercial architecture. It features extensive glass display windows, a broad low-pitched gabled roof, and integrated planters at the exterior walls, elements well suited to the building's decades-long use as a nursery business. While this building retains these features associated with the Mid-Century Modern style, it is a later example of the style whose overall aesthetic impression and material palette echo the design of Eichler homes from the late 1940s and early 1950s. Lacking playful engagement with massing, fenestration patterns, protruding and recessing elements, or palette, the building falls short of being an architecturally significant example of the style. In addition, the functional extensive glazing remains intact, but the purity of critical materials has diminished. For example, its wood siding has been painted, its planters clad with stucco, and the plants decorating the front elevation removed. This building is a late and unexceptional example of the style, does not exhibit high artistic value, and lacks design choices in massing and ornamentation that would present a fully expressionist Mid-Century Modern building. It is not, therefore, exemplary of a particular style, building type, time period, or construction method.

Born in 1926, architect Ebbe Videriksen designed a wide variety of building types. Videriksen graduated from the Horsens Technical College in Denmark in 1950. From 1967 to 1968, he served as the director of the American Institute of Architects' San Fernando Valley District (Gane and Koyl 1970:948). His body of work appears to focus on Southern California and includes a $40 million office complex (1981) in Ventura, adjacent to the Ventura County Government Center; a block-size office building at 4400 Coldwater Canyon Avenue (1983) in Studio City; resort condominiums in Marina Del Rey (1972) and Mammoth Lakes (1977); and the Fisherman's Wharf (1978) in Channel

Islands Harbor, Oxnard (PCAD 2019). While Videriksen designed in a wide variety of architectural styles, including Mid-Century Modern and Late Modern, he designed these buildings decades after the height of the styles' popularity.

A review of academic and architectural literature databases did not reveal extensive laudatory coverage of Videriksen's body of work contemporaneously or retrospectively. The building located at 4400 Coldwater Canyon Boulevard in Los Angeles (1993) is mentioned but not praised in David Gebhard and Robert Winter's foundational *Los Angeles: An Architectural Guide*. Although a member of the American Institute of Architects, Videriksen has not been elected a fellow of that esteemed organization. Research did not reveal that any of Videriksen's designs have been listed in or determined eligible for listing in the NRHP, CRHR, or as an HCM. Based on the current understanding of Videriksen's body of work, therefore, he does not appear to be a master architect. Because Videriksen is does not appear to be master architect, this building cannot represent the work of a master.

Therefore, 7934 Lankershim Boulevard is not eligible under Criteria C/3/3.

Criteria Related to Archaeology and/or Information Potential

D: National Register of Historic Places

4: California Register of Historical Resources

Constructed during the historic period, the building's wood-frame construction has been thoroughly researched and is well understood. Research did not reveal any other aspects of this resource that are likely to reveal important historical or prehistorical information, and thus 7934 Lankershim Boulevard is unlikely to yield information important in prehistory or history and is thus not significant under Criteria D/4. Please note that the potential for archaeological significance is analyzed in a separate report, *7940 Lankershim Boulevard Cultural and Paleontological Resources Assessment Report*.

Significance Summary

The building at 7934 Lankershim Boulevard is not currently listed in, nor has it previously been found to be eligible for listing in, the NRHP, the CRHR, or as a City of Los Angeles HCM. This evaluation found that the building is not eligible for listing under any of the criteria listed above.

Chapter 5
Impacts Analysis

No resources in the study area qualify as historical resources under CEQA. Therefore, it is expected that the demolition of the two existing buildings and construction of new development will not result in any significant impacts on historical resources.

Chapter 6
Conclusion

Two resources in the direct study area are subject to demolition in connection with the proposed Project. These two resources, 7916–7918 Lankershim and 7934 Lankershim Boulevard, were fully evaluated and documented. Neither is a CEQA historical resource.

Thirty-five resources listed in Table 4, above are located in the indirect study area. These resources were analyzed and evaluated but not documented. Based on previous SurveyLA findings supplemented by observation and research, none appear to qualify as a CEQA historical resource.

The two resources located at 7923 Lankershim Boulevard and 7945 Lankershim Boulevard were constructed after 1981. Because research did not reveal any information to suggest that they qualify as CEQA historical resources in spite of their youth, they are presumed not historic.

Chapter 7
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Appendix A

Resumes of Authors and Contributors

COLLEEN DAVIS

Senior Manager, Lead Architectural Historian

Colleen Davis offers 19 years of historic consulting experience in evaluating properties for National Register of Historic Places (NRHP) eligibility, analyzing effects to historic properties under Section 106 of the NHPA, and consulting with State Offices of Historic Preservation (SHPOs).

Colleen has extensive experience providing Section 106 compliance support for Housing and Urban Development Department (HUD)-funded undertakings. Colleen currently supports the Marin Housing Authority to comply with Section 106 for undertakings related to the NRHP-listed Golden Gate Village public housing complex, She supported the New Jersey Department of Environmental Protection (DEP), providing Section 106 support for HUD Community Development Block Grant-Disaster Recovery (CDBG-DR) funded undertakings under ICF's Environmental and Historic Preservation Review Program Management contract supporting the overall Superstorm Sandy recovery efforts. She previously served as Deputy Project Manager under the same contract. From 2006-2017, Colleen provided Section 106 compliance support to the City of Los Angeles for all of its HUD-funded undertakings, including CDBG projects, amounting to thousands of projects over an 11 year period. From 2011-2012, she also provided technical assistance to the Michigan State Housing and Development Authority for HUD Neighborhood Stabilization Program undertakings.

Years of Experience

- Professional start date: 08/2000
- ICF start date: 06/2006

Education

- MA, History, California State University, Fullerton, 2010
- BA, English, University of California, Los Angeles, 1990

Professional Memberships

- Urban History Association
- Association for Preservation Technology
- Vernacular Architecture Forum
- National Trust for Historic Preservation
- Los Angeles Conservancy

Professional Development

- Short Courses in Historic Preservation/Summer, University of Southern California, 2000

Colleen exceeds the Secretary of the Interior's professional qualifications standards in history and architectural history.

Selected Project Experience

Section 106 Review for Department of Housing and Urban Development (HUD) funded undertakings at Golden Gate Village - Marin Housing Authority –Marin City, California (04/2017 – present)

For the National Register of Historic Places listed Golden Gate Village public housing complex, ICF supports the Marin Housing Authority (MHA) in complying with the California Environmental Quality Act and Section 106 of the National Historic Preservation Act. ICF' recently completed a Section 106 compliance "tool kit" – a step-by-step "how to" process keyed to ten (10) sample compliance document templates adaptable to a wide variety of potential projects. Currently, ICF preparing a detailed character-defining features analysis of the site, which includes intensive landscape analysis, field survey, photo-documentation, and preparation of an easy-reference matrix identifying important physical features and spaces. For all repair and maintenance projects, Colleen advises MHA on historically appropriate approaches and techniques and drafts memoranda documenting compliance with the Secretary of Interior Standards for Rehabilitation.

Environmental Services Cultural Assessment for Weatherization Projects—California Department of General Service and Department of Community Services and Development, Statewide, California (2011 – present)

Since 2011, Colleen has managed a program for the state of California to implement the first amended programmatic agreement among the CEC, Department of Community Services and Development, and the California SHPO Regarding Section 106 compliance for Department of Energy programs to provide National Historic Preservation Act Section 106 compliant reviews. Colleen manages over 30 staff located in six ICF offices to complete Section 106 reviews for over 13,000 properties. Review results are delivered within 2 business days, allowing the projects to proceed to construction without unnecessary delay. Key drivers for this project include accuracy and speed. Its paperless business process relies on customized technology tools and a desktop review protocol, which have been critical to its success. In her role, Colleen ensures that appropriately qualified staff are available daily, quality products are delivered, and timely completion of reviews within a firm fixed price budget. Colleen also consults with SHPO on behalf of the client.

Statewide Cultural Resources Compliance—California Department of General Service, Statewide, California (2015 – present)

Since 2015, Colleen has managed ICF's on-call contract to provide historical resources evaluation and consultation for state-owned buildings on behalf of DGS. Under this contract, Colleen has overseen evaluation of more than 10 state buildings in Sacramento, Redding, Red Bluff, San Diego, and Fresno. In compliance with Public Resources Code 5024 & 5024.5, Colleen's team evaluated National Register of Historic Places, California Register of Historical Resources, and California Historical Landmark eligibility. Detailed historic contexts prepared for these evaluations included local contexts for each city, statewide contexts tied to relevant events and time periods, Mid-century Modern architecture, Late Modern architecture, and sustainable/energy efficient architecture. In some cases, extensive integrity analysis was required. On behalf of DGS, Colleen's team successfully obtained SHPO concurrence for all eligibility/ineligibility determinations.

Department of Housing and Urban Development (HUD) Section 106 Review—City of Los Angeles, Housing and Community Investment Department, Los Angeles, California (2006 – 2017)

Colleen oversaw HUD Section 106 reviews for the City of Los Angeles. Colleen deputy managed Section 106 reviews totaling approximately 200 National Register of Historic Places property evaluations each year from 2006 through 2017. In addition to coordinating a team of architectural historians to perform field survey, research, and evaluation of properties potentially affected by proposed undertakings, Colleen's responsibilities included preparing more than 20 determinations of National Register eligibility and 30 Findings of Effect analyzing effects to historic properties; advising on methods to avoid, minimize, or mitigate adverse effects; and consulting with SHPO to resolve adverse effects. Over the thousands of projects reviewed during the 11 years ICF held this contract, a memorandum of agreement to resolve adverse effects was needed on only three occasions.

Camp Hall Rail NEPA Analysis—Surface Transportation Board (STB), Army Corps of Engineers (Corps) Berkeley County, South Carolina (11/2017 – present)

Colleen leads the cultural resources analysis. She is the primary author of the NHPA Section 106 Finding of Effect which concluded no adverse effect would result from the construction and operation of a new 30-mile long proposed rail line with two linear NRHP-eligible historic properties and a historic cemetery in its area of potential effects. SHPO concurred with this finding. She is also the primary author of the environmental document analysis. Federal Railroad Administration and United States Coast Guard are cooperating agencies. ICF is analyzing effects under NEPA and the NHPA

California High-Speed Train, Los Angeles to Anaheim—California High-Speed Rail Authority/ STV, Los Angeles to Anaheim, California, 08/2015 – present

Colleen supports the built environment team identifying resources, conducting archival research, preparing of technical reports (including Historic Architectural Survey Report and Finding of Effect), and drafting the environmental document section accordance with the guidance provided by the CHSRA. ICF is preparing technical documents and an Environmental Impact Report/Environmental Impact Statement in compliance with CEQA, NEPA, and the NHPA. The HSR Project Alternative utilizes an existing rail corridor that traverses dense urban and suburban neighborhoods developed with a wide variety of residential, commercial, industrial, and transportation building types

California High-Speed Train, Palmdale to Burbank—California High-Speed Rail Authority/ Circlepoint, Palmdale to Burbank, California, 08/2015 – present

Colleen supports the built environment team identifying resources, conducting archival research, and preparing technical reports in accordance with the guidance provided by the CHSRA. ICF is providing technical expertise in Biology, Air Quality and Cultural Resources in support of the supplemental alternatives analysis and EIR/EIS for the Palmdale to Burbank Project Section. Three alternatives under analysis travel from the proposed Palmdale Station to the proposed Burbank Station. Alternatives include tunnels through a national forest, as well as at-grade and elevated track through rural, agricultural, suburban and dense urban residential/ commercial areas.

State of New Jersey, Department of Environmental Protection (NJDEP), Program Management for Environmental and Historic Preservation Reviews related to HUD Community Development Block Grant – Disaster Recovery (CDBG-DR) funded Superstorm Sandy Recovery (2015 – 2018)

Colleen provides technical assistance related to historic preservation and environmental compliance associated with disaster relief funds provided by HUD for the State of New Jersey's Superstorm Sandy recovery effort. New Jersey received $3.2 billion in CDBG-DR grant funds to support the housing, business, and infrastructure repair needs in the nine counties most impacted by the storm. ICF works directly with NJDEP in managing compliance with the National Environmental Policy Act (NEPA) and Section 106. Section 106 compliance for these undertakings is governed by a programmatic agreement among the Federal Emergency Management Agency, the New Jersey State Historic Preservation Office, the New Jersey State Office of Emergency Management, the Advisory Council on Historic Preservation, and others as a result of Hurricane Sandy. Colleen advises NJDEP on Section 106 compliance and consults with NJSHPO to resolve adverse effects to historic properties.

Employment History

ICF. Architectural Historian. Los Angeles, California. 06/2006 – Present.

Freelance, Historic Preservation Consultant. 05/2004 – 05/2006.

Historic Resources Group. Research Associate, Los Angeles, California. 08/2000 – 04/2004.

ANDREW BURSAN

Senior Historic Preservation Specialist, Historian

Andrew Bursan has fourteen years of experience working on issues related to urban land planning and historic preservation. While working for the City of Arroyo Grande, California, he assisted in the creation of a historic resources committee, citywide historic register, and a historic overlay zone. Since joining ICF, he has supported various projects through archival, library, microfiche and Internet research. Andrew also conducts permit research and is experienced in the preparation of historic context statements and property descriptions.

Andrew exceeds the Secretary of the Interior's professional qualifications standards in history and architectural history.

Years of Experience

- Professional start date: 04/2005
- ICF start date: 04/2007

Education

- MCRP, City and Regional Planning, California Polytechnic State University, San Luis Obispo, 2005
- BA, History, University of California, Los Angeles, 2002

Professional Development

- CEQA-Historical Resource Lecture, 2008-2011
- Environmental Justice Lecture, California, 2011

Project Experience

I-605 Corridor Improvement Project, California Department of Transportation (Caltrans), Los Angeles County Metropolitan Transportation Authority, Parsons Transportation Group and Galvin Preservation Associates, Los Angeles County (6/2017-2/2019)

Andrew managed field survey work, performed evaluations of historic properties under CEQA and Section 106, documented tract development resources under a programmatic agreement, wrote historic context, and attended meetings regarding the historic documentation of built resources

California High-Speed Train, Anaheim-to-Los Angeles—California High Speed Rail Authority/STV, Inc., Orange and Los Angeles Counties, California (11/2015 – present)

Andrew has done extensive work on the project including surveying and documenting hundreds of properties for NR and CR eligibility. Other work on the project includes property database management, writing of historic context, writing DPRs, and developing strategies for property documentation.

California High-Speed Train, Palmdale-to-Burbank—California High Speed Rail Authority/STV, Inc., Orange and Los Angeles Counties, California (8/2017 – present)

Andrew has documented hundreds of properties for NR and CR eligibility, wrote DPR forms, historic context, and helped develop the project APE.

Anaheim Rapid Connection Fixed Guideway Project and Street Car LNTP (Anaheim Streetcar)—City of Anaheim/Hill International, Anaheim, California (05/2013 – 04/2014)

Andrew participate in the Energy and Utilities sections of the ARTIC technical report and environmental impact report (EIR), which were prepared under CEQA and Section 106 guidelines. He wrote sections of the historic context and DPR forms for the Historic Resources section of the reports. Andrew conducted field survey work, building permit research, building descriptions, and directory research.

Downtown Cultural Resources Surveys—City of Long Beach, California (05/2009 – 01/2010)

Andrew conducted building permit research, building description, and directory research. ICF was retained in 2009 to conduct a reconnaissance-level survey of historic properties located within the Downtown Long

Beach Planned Development District constructed through 1964. The purpose of the survey was to assist the City in the preparation of an EIR for the downtown community plan.

Santa Monica Citywide Survey—City of Santa Monica, California (05/2009 – 07/2010)

Andrew collected permit information and conducted property research. ICF completed an intensive-level citywide historic survey of structures built through 1968. The project involved the completion of a reconnaissance-level survey of the entire City and historical context statements for the City as a whole, as well as for specific areas. There are approximately 13,600 properties with structures constructed prior to 1968 within the City. The project included a more intensive survey of relevant properties following the initial reconnaissance, resulting in a DPR primary record and/or continuation sheet for each such property. The City's existing historic resources inventory contains approximately 1,300 properties, derived from initial surveys (Phases 1 and 2 between 1983 and 1986, Phase 3 in 1993) and area updates in 1994, 1997, 2002, and 2004. The project goal is to achieve a uniform level of evaluation for the entire City.

San Pedro Waterfront Project EIS/EIR—Port of Los Angeles, San Pedro, California (02/2008 – 10/2009)

Conducted building permit, Sanborn, and library research for the project. The Los Angeles Harbor Department, in cooperation with the U.S. Army Corps of Engineers, proposed the San Pedro Waterfront Redevelopment Project, which entailed redeveloping approximately 422 acres to expand and improve public recreational and commercial use of the waterfront area. The effort to identify historic properties within the Area of Potential Effect (Permit Area) consisted of a records search at the South Central Coastal Information Center of the California Resources Information System, archival and historic map research, correspondence with historical societies and other interested parties, and an architectural inventory of the Area of Potential Effect (Permit Area).

Employment History

ICF. Historian. Los Angeles, California. 04/2007 – Present.

Stantec Consulting. City Planner. Sacramento, California. 05/2006 – 12/2006.

City of Arroyo Grande Community Development Department. Planning Intern. Arroyo Grande, California. 08/2004 – 09/2005.

County of Santa Barbara (Summer Internship Program). Planning Intern. Santa Barbara, California. 06/2004 – 08/2004.

KATRINA CASTAÑEDA

Historic Preservation Specialist, Architectural Historian

Katrina Castañeda has over three years of experience in historic preservation planning at a governmental, consulting, and not-for-profit capacity. Prior to joining ICF, she was responsible for enforcing the Mills Act program at a local level, applying the Secretary of the Interior Standards, and for reviewing properties for local significance and overall planning approval. She has crafted and run workshops for stakeholders interested in rehabilitating historic properties as well as produced marketing material. Katrina has written building condition assessments and prepared historic district surveys, property evaluations, and local register nominations. Through her graduate thesis work, she is taking a critical look at historical designation programs for demographic representation.

Years of Experience

- Professional start date: 07/2015
- ICF start date: 09/2017

Education

- Master of Heritage Conservation Candidate, University of Southern California, Expected 2019
- Master of Planning, University of Southern California, Expected 2019
- BA, International Studies, University of California, Irvine, 2014

Professional Memberships

- Los Angeles Conservancy
- American Planning Association
- National Trust for Historic Preservation
- The Glendale Historical Society

Professional Development

- Real Estate Development Finance, National Trust for Historic Preservation, 2016
- CEQA Essentials, Association of Environmental Professionals, 2018

Project Experience

Interstate 605 (I-605)/I-5 Interchange PA/ED—Los Angeles County Metropolitan Transportation Authority (LA Metro)/ Parsons Transportation Group, Los Angeles County, California (09/2017 – 05/2018)

Katrina conducted historic resource surveys, developed historical context, and prepared historical evaluations and DPR 523 forms for dozens of residential properties in the Area of Potential Effects, as part of the Historic Resources Evaluation Report (HRER) and Historic Property Survey Report (HPSR).

Metro Restoration of Los Angeles Streetcar—LA Metro/HDR, Los Angeles, California (10/2017)

Katrina completed the evaluation of the West 7th Street Historic District, which included a historic resources survey as well as extensive historical research and context development. This work was part of a technical report for compliance Section 106 of the NHPA. The findings received concurrence from the State Historic Preservation Officer (SHPO).

Peer Review of 356 S. Grand (Memorandum)—City of Pasadena, Pasadena, California (10/2018 – 11/2018)

Katrina performed a peer review of a historical evaluation for a Post-and-Beam style single-family-residence. This work entailed a site visit with the property owner, client, and architect; photographic documentation; review of the City of Pasadena's historic preservation ordinance and policies, local register nominating guidelines, and the relevant historic context statements; and additional research.

Intern—The Glendale Historical Society, Glendale, California (05/2017 – 08/2017)

As an intern at The Glendale Historical Society, Katrina reviewed and commented on the draft South Glendale Historic Resources Survey, a piece of the South Glendale Community Plan. She prepared an educational presentation about forming local historic districts. She assisted property owners with historic preservation applications to the City's Glendale Register of Historic Resources and prepared the successful nomination for the Kiefer-Eyerick Mortuary (314 E. Harvard; Glendale Register #123).

Planning Aide—City of Anaheim Planning Department - Historic Preservation, Anaheim, California (07/2015 – 05/2017)

While employed by the City of Anaheim Planning Department, Katrina managed the Mills Act contract enforcement process for over 300 properties. This entailed discussing Mills Act procedures and implications with inheritors and those interested in the program; performing site inspections for compliance with the City's program; and reviewing work proposed for historic properties, in accordance with the Secretary of the Interior's Standards for Rehabilitation. She assisted with the application process by providing consultations to Mills Act applicants and reviewing maintenance plans and applications. She designed and co-produced marketing materials for the City's relatively new Historic Preservation program, including handouts and a video series (2017 Governor's Historic Preservation Award recipient). Katrina also organized events such as preservation-educational workshops and City Council ceremonies.

Recognition and Commendations

Awards

Governor's Historic Preservation Award. California Office of Historic Preservation and California State Parks. 2017.

Diversity Scholarship. National Trust for Historic Preservation. Chicago, Illinois. 2017.

Fellowships

Sustainability Fellow. University of California – Irvine, School of Social Ecology. 2013.

ID-SURE Research Fellow. University of California – Irvine, Undergraduate Research Opportunities Program. 2013.

Employment History

ICF. Architectural Historian. Los Angeles, California. 09/2017 – Present.

The Glendale Historical Society. Intern. Glendale, California. 05/2017 – 08/2017.

City of Anaheim Planning Department - Historic Preservation. Planning Aide. Anaheim, California. 07/2015 – 05/2017.

City of Cerritos Community Development Department. Planning Intern. Cerritos, California. 03/2015 – 06/2015.

City of Anaheim Planning Department/Public Works Department. Intern. Anaheim, California. 07/2013 – 03/2015.

Appendix B

DPR 523 Forms

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

***Resource Name or #** (Assigned by recorder) 7916-7918 Lankershim Boulevard

P1. Other Identifier: N/A
***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County** Los Angeles
***b. USGS 7.5' Quad** Van Nuys **Date** 1966 **T** 2N **R** 14W; **¼ of ¼ of Sec** (un-sectioned) **B.M.**
c. Address: 7916-7918 Lankershim Boulevard City Los Angeles Zip 91605
d. UTM: (give more than one for large and/or linear resources) Zone 11S; 372178.64mE/ 3786804.92 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 2311-007-004

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

Constructed in 1940, 7916–7918 Lankershim Boulevard is a one-story vernacular building with Mid-Century Modern elements, built of wood-frame construction (City Permit No. VN00803). The building has a square footprint and is clad with laced stucco. It is topped with three types of roofs, reflecting building additions over time. The primary (west) elevation faces onto Lankershim Boulevard and features a shed roof. Two adjacent symmetrical storefronts compose the primary elevation, each with a central metal-frame glazed door with a transom, flanked by a pair of metal-frame windows. Two illuminated box signs above the storefronts, an illuminated box blade sign, and projecting plywood complete the front elevation. The north (side) elevation features two fixed metal-frame windows and a parapet roof. The south and east elevations are not visible from the public right-of-way, but aerial photography reveals a hipped roof at the southeastern quadrant of the building.

***P3b. Resource Attributes:** (List attributes and codes) HP6 (1-3 story commercial building)
***P4. Resources Present:** ☑ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5a. Photograph or Drawing (Photograph required for buildings, structures and objects)



P5b. Description of Photo: (View, date, accession #) West (primary) façade, viewed facing northeast, 3/20/2019

***P6. Date Constructed/Age and Sources:**
☑Historic ☐ Prehistoric ☐ Both
1940 (City of Los Angeles, Department of Building and Safety.)

***P7. Owner and Address:**
Lankershim Crossing LLC
4751 Wilshire Boulevard, #110
Los Angeles, CA 90010

***P8. Recorded by:** (Name, affiliation, address)
Katrina Castañeda, ICF
555 W. 5th Street, Suite 3100
Los Angeles, CA 90013

***P9. Date Recorded:** 6/4/2019
***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** Katrina Castañeda, Andrew Bursan, and Colleen Davis, ICF, 2019. *7940 Lankershim Boulevard, Historical Resources Technical Report*. May (ICF 00047.19) Los Angeles, CA. Prepared for DLA Piper, LLC, Los Angeles, CA.
***Attachments:** ☐NONE ☐ Location Map ☐ Sketch Map ☑ Continuation Sheet ☑ Building, Structure, and Object Record ☐ Archaeological Record ☐District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record

***Resource Name or #** (Assigned by recorder) 7916-7918 Lankershim Boulevard
B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use Commercial Office Building B4. Present Use: Commercial Office Building
***B5. Architectural Style:** Vernacular Modern
***B6. Construction History:** (Construction date, alteration, and date of alterations)

In 1940, H.R. Coburn applied for a building permit to construct a one-story 18-foot by 20-foot building for use as a carpenter shop and storage in association with a dwelling (no longer extant) to the east (City Permit No. 24625). Based on a review of permits at 7916 and 7918 Lankershim Boulevard, this appears to be the basis of the existing building at its southeast quadrant. In 1950, a 10-foot by 20-foot addition was added to the building's elevation facing Lankershim Boulevard. The resulting 20-foot by 28-foot garage was converted into a shop (City Permit No. VN24584). In 1951, Joe Alhadoff applied for a building permit to construct an 18-foot by 40-foot addition to the north wall, completing the existing 40-foot by 40-foot building (City Permit No. VN00803).

Although a review of Los Angeles City directories did not reveal any occupants of 7916–7918 Lankershim Boulevard, newspaper advertisements were found in 1961 for Everlast Screen Co., a showroom and store for window screens (*Valley News* 1961).

***B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** N/A **Original Location:** N/A
***B8. Related Features:** N/A
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance: Theme** N/A **Area** N/A
Period of Significance N/A **Property Type** N/A **Applicable Criteria** N/A

Historic Context

Spanish occupation of California began in 1769, at Mission San Diego de Alcalá; Mission San Gabriel was established in in 1771. Established as a civilian settlement on September 4, 1781, at the behest of the Spanish royal governor of California, the City of Los Angeles began as the Los Angeles Pueblo. In 1797, in the northwest San Fernando Valley (SFV), Franciscan missionaries established Mission San Fernando Rey de España. Mexico rebelled against Spain in 1810, and by 1821, Mexico, including California, achieved independence. The Mexican Republic began to grant private land to citizens to encourage immigration to California; huge land grant ranchos took up large sections of land. In 1833, Mexico declared an end to the Missions and secularized the religious order's land holdings. The area became known as Rancho Ex-Mission San Fernando by the mid-nineteenth century.

At the turn of the century, railroads and other early signs of urban development appeared in the SFV. Southern Pacific and Pacific Electric connected cities, and the California Aqueduct's arrival in 1913 jumpstarted agricultural and ranching production, largely contributing to the SFV's legacy as rich farmland, which continued to boast swaths of agricultural land for wheat, citrus, and olives into the twentieth century (Roderick 2001). (See continuation sheet.)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** (See continuation sheet.)

B13. Remarks: N/A

***B14. Evaluator:** Katrina Castañeda, ICF

***Date of Evaluation:** 6/4/2019
(This space reserved for official comments.)

(Sketch Map with north arrow required.)



***B10. Significance** (continued):

Relatively undeveloped through the 1910s, the Sun Valley area was connected to industry in Los Angeles and San Bernardino through the construction of California State Route 99, beginning in 1915 (HRG 2015). Due to the formation of the motion picture industry, increased manufacturing, and boosterism, the coming decades saw a dramatic increase in population. During the 1920s, the population of Los Angeles nearly doubled, growing from approximately 0.75 million to 1.2 million. Rapid development of single-family residential tracts in newly platted neighborhoods would help alleviate the housing crisis.

The automobile enabled many to live even greater distances from jobs, retail, and services and lessened dependence on a central downtown for any or all of those needs. As the decades rolled by, the trend of decentralization gained momentum. Although the Los Angeles Basin was not yet fully built out, after 1930, City officials and developers turned their heads north, to the SFV, as an auspicious area for the City's expansion. Following World War II, returning servicemen, defense workers, and employees of the Lockheed Air Terminal in Burbank contributed further to the area's rapid growth, transforming the Sun Valley area from primarily agricultural land to highly urbanized in only a few decades (HRG 2015).

Arterial Commercial Development (1880-1950)
The street layout in the SFV is characterized by wide arterial boulevards, feeder streets, and regular street grids. Early surveyors of the 1880s platted large tracts in the area, making way for future subdivisions (Roderick 2001:42–45). The 1941 *Master Plan of Highways for Los Angeles County* led to several north-south and east-west routes and identifiable arterials, such as Sepulveda, Reseda, Van Nuys, and Lankershim boulevards and San Fernando Road, all of which span numerous cities. Although these streets had been laid out for decades, a growing postwar population necessitated development along these streets. As single-family residential tracts of housing were built out, thousands of residents filled the street grids of the SFV, and commercial development serving the new residents quickly followed. By the mid-1960s, in fact, planning experts noted the overabundance of commercially zoned land along arterials, "perhaps up to four times that needed by the number of residents" (Prosser 2017:15–16).

The 2017 SurveyLA Citywide Historic Context Statement for Commercial Development: Neighborhood Commercial Development names three patterns by which neighborhood-level commercial development occurred in the City. First, starting in the 1920s, builders constructed elite department stores and larger retailers as attached storefronts along or near streetcar lines, with parking in the rear. Second, following World War II, retailers began building and occupying freestanding buildings, serving new neighborhoods, and providing their own onsite parking. These buildings incorporated programmatic and advertisement-type designs. The third type of development, the neighborhood shopping center, emerged by the mid-1950s. Characterized by onsite parking spaces in front of the building, businesses in a neighborhood shopping center could be in a stand-alone building or in a retail space as part of a collection of attached retail outlets (Prosser 2017:18).

Under this context, an eligible neighborhood commercial resource is one that illustrates how goods and services were provided within a neighborhood setting served by the automobile, "[illustrating] how community life was conducted within a commercial district," and reflects architectural styles and parking patterns from the property's period of construction "(Prosser 2017:35). In addition, an individually eligible property would need to retain integrity of location, design, materials, feeling, and association.

SurveyLA identified an eligible example of this context in the SFV as follows:

- **The Lankershim Commercial Corridor Historic District,** along the 5600 block of Lankershim Boulevard from Tujunga Avenue to Collins Street, located 3 miles south of the study area in North Hollywood, is significant as a late example of arterial commercial development. Dating from the 1930s to the 1950s, the properties that make up the district are tightly concentrated, neighborhood-scale storefronts that "maintain a relationship to the street and to each other that is found in older neighborhoods" (Prosser 2017:15).

Mid-Century Modernism (1945-1970)
In the late 1950s and early 1960s in California, the Mid-Century Modern style arose from the Modern Movement as architects began to experiment with shapes, materials, and color in ways that deviated from "orthodox" Modernism. Southern California's architectural tradition of experimentation with building technology and style, as well as the region's climate and postwar population boom, made it an ideal breeding ground for the style's growth. Under the umbrella of post-World War II Modernism, Mid-Century Modernism is a version that is more informally expressionist. It is adjusted with subtle ornamentation, adding sensory expressions of its design vocabulary by playing with massing, components such as columns, fenestration patterns, protruding and recessing elements, or palette. The style also manifests in the Post-and-Beam subtype, a result of advances in construction techniques that utilized steel or wood posts, beams, and expanses of glass to create uninterrupted glazed facades. Vernacular Mid-Century Modern buildings are characterized by low-pitched shed- or gable-roofed volumes, broadly overhanging eaves, and deeply recessed entries. Other features include planters integrated with exterior walls; slightly projecting mullions that add vertical accents to the horizontal emphasis of window bands and ribbons; screen walls, often of perforated concrete block or solid concrete block with two-dimensionally projecting geometric elements; canted walls, windows, or recessed entries, often with

extensive glazing; and atrium or courtyard entry spaces. Mid-Century Modern-style commercial buildings typically incorporated bays of recessed and extensive plate-glass display windows (Christopher A. Joseph & Associates 2009:16; Historic Resources Group and Pasadena Heritage 2007:67).

Excellent examples of this style artfully combine organic palettes, novel building technologies, site planning techniques, and geometric angles and building forms to assert a relationship to the outdoors and express building materials. Overall, a property eligible under this context would display the spirit of modernism through its functionality, experimentation, and material expression.

Eligible examples of Mid-Century Modern style include:

- **Our Lady of the Holy Rosary Church** at 7800 Vineland Avenue in Sun Valley was designed by architect Thomas V. Merchant and built in 1964. Its expressionist design incorporates elliptical-perforated concrete screens and stylized Gothic arches. The front elevation presents a sculpture by acclaimed artist Roger Darricarrere, rendered espousing his *dalle de verre* technique, which incorporates pieces of colored slab glass set in a concrete matrix (HRG 2015:Appendix 22).
- **Pink Motel & Cadillac Jack's** at 9457-9475 San Fernando Road in Sun Valley is an example of roadside commercial architecture comprised of two buildings with a distinctive pink-and-blue paint scheme and monumental neon signage. The architect Joseph Thomulka incorporated decorative screen block walls, a playful fish-shaped swimming pool, and bands of storefront windows into its design.

Evaluation

Criteria Related to Events or Broad Patterns of History
A: National Register of Historic Places
1: California Register of Historical Resources
1: City of Los Angeles Historic Cultural Monuments

The 2017 SurveyLA arterial commercial development historic context statement establishes a period of significance beginning in 1880 and ending in 1950, when postwar forms of neighborhood commercial development evolved into shopping centers and single-story storefront blocks. Eligible examples of the arterial commercial development form consist of series of adjacent storefronts creating a "street wall of continuous businesses" (Prosser 2017:16). Parking is provided behind the buildings in one of two patterns. With the first pattern, these "street [walls] of continuous businesses" provided parking in the rear. The second pattern was characterized by freestanding structures, elite department stores, and dedicated rear parking lots. These examples more fully took advantage of their roadside location through "iconic design motives as large-scale advertisement" (Prosser 2017:16–18).

A 1952 aerial photograph of the subject building show sparse development in the area. The subject building and the no longer extant 1949 Mel-O-Dee Nursery building were sited on the east side of Lankershim Boulevard, north of the Project Site. A few buildings are sited on the west side of Lankershim Boulevard, likely examples of local businesses set along this arterial route. More extensive commercial development within the surrounding blocks did not appear until the 1960s and 1970s. Aerial photographs from later years indicate that parking was provided behind the building (NETR 2019).

The property at 7916–7918 Lankershim Boulevard consists of a pair of attached storefronts with on-site parking spaces provided behind the building. The subject building does not achieve the "street wall" effect expected of an eligible example. It does not conform to the broad pattern of arterial commercial development in Los Angeles. Nor did research uncover any other important related events or associations between the resource and broad patterns of history. Therefore, 7916–7918 Lankershim Boulevard is not eligible under Criteria A/1/1.

Criteria Related to Association with Significant Persons
B: National Register of Historic Places
2: California Register of Historical Resources
2: City of Los Angeles Historic Cultural Monuments

Newspaper research on this property and on its former owners and occupants, including H.R. Coburn, Joe Alhadoff, and Everlast Screen Co., did not suggest any potential local, regional, or national significance. Research also did not reveal associations to any other significant persons in history. Therefore, 7916–7918 Lankershim Boulevard is not eligible under Criteria B/2/2.

Criteria Related to Architectural Quality
C: National Register of Historic Places
3: California Register of Historical Resources
3 & 4: City of Los Angeles Historic Cultural Monuments

The building at 7916–7918 Lankershim Boulevard is an unornamented commercial building with a shed roof characteristic of the Mid-Century Modern architectural style. The original cladding was likely a smoother texture consistent with the mid-century period. Research has not uncovered an architect associated with the building. As a vernacular example of the style lacking original cladding, the expression of those materials, geometric shapes, and elements that highlight a relationship between the indoors and outdoors, this building appears to be a primarily utilitarian building that lacks a strong tie to the Mid-Century Modern style or any identifiable style, for that matter. Therefore, 7916–7918 Lankershim Boulevard is not eligible under Criteria C/3/3**.**

Criteria Related to Archaeology and/or Information Potential
D: National Register of Historic Places
4: California Register of Historical Resources

Constructed during the historic period (after 1769), the building's wood-frame construction has been thoroughly researched and is well understood. Research did not reveal other aspects of this resource that are likely to reveal important historical or prehistorical information. Therefore, 7916–7918 Lankershim Boulevard is unlikely to yield information important in prehistory or history, and is thus not considered significant under Criteria D/4.

Significance Summary
The building at 7916-7918 Lankershim Boulevard is not currently listed, nor had it been previously determined to be eligible for listing, in the NRHP, the CRHR, or as a City of Los Angeles HCM. This evaluation found that the building is not eligible for listing under any of the criteria discussed above.

***B12. References (continued):**

Architectural Resources Group (ARG). 2013. *SurveyLA Citywide Historic Resources Survey Report—North Hollywood-Valley Village Community Plan Area (Appendix: Individual Resources)*, prepared on behalf of Office of Historic Resources, Department of City Planning, City of Los Angeles, February.

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Permit No. 24625, June 24, 1940.
Permit No. VN00803, January 12, 1951.
Permit No. VN08703, April 3, 1974.
Permit No. VN12784-85, October 24, 1949.
Permit No. VN12784-85/49 (Certificate of Occupancy), December 7, 1949.

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Historic Resources Group and Pasadena Heritage. 2007. *Cultural Resources of the Recent Past Historic Context Report.* Prepared for the City of Pasadena. Page 67.

National Environmental Title Research, LLC (NETR). 2019. Historic Aerial Photographs of 7916-7918 Lankershim Boulevard, North Hollywood, 1952-2014. Accessed March 16, 2019. Available: https://www.historicaerials.com/viewer.

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Roderick, Kevin. 2001. *The San Fernando Valley: America's Suburb*. Los Angeles: Los Angeles Times Books.

Valley News
"Everlast Screen Co (ad)." August 3, 1961.

Additional Figures:



Photograph 2. North (secondary) façade, viewed facing southeast. ICF, 3/20/2019



Photograph 3. West (primary) façade, view of storefront viewed facing northeast. ICF, 3/20/2019

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code _____

Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

***Resource Name or #** (Assigned by recorder) 7934 Lankershim Boulevard

P1. Other Identifier: N/A
***P2. Location:** ☐ **Not for Publication** ☑ **Unrestricted** ***a. County** Los Angeles
***b. USGS 7.5' Quad** Van Nuys **Date** 1966 **T** 2N **R** 14W; **¼ of ¼ of Sec** (un-sectioned) **B.M.**
c. Address: 7934 Lankershim Boulevard City Los Angeles Zip 91605
d. UTM: (give more than one for large and/or linear resources) Zone 11S; 372184mE/ 3786839 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) APN: 2311-006-028

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

7934 Lankershim Boulevard is a large, one-story rectangular plan commercial building designed in the Mid-Century Modern style. With wood-frame construction (City Permit No. VN18963/67), the 74-foot by 106-foot building faces west onto North Lankershim Boulevard. A Post-and-Beam subtype of the Mid-Century-Modern style, six of the front elevation's eight bays are composed of large expanses of dark-tinted glass and clerestory windows between wood posts. The outer ends of the front elevation and the two left bays are of vertical wood siding, and the building is topped with a low-pitched, front-gabled roof supported by projecting beams. A square monitor covered with vertical wood siding lights the inside of the building. The entrance at the front elevation is offset, featuring two fully-glazed double metal doors with sidelights. Lining the front elevation are integrated landscape planters with brick coping and cinder blocks that have been covered with painted stucco. The side elevations appear to be of vertical wood siding.

***P3b. Resource Attributes:** (List attributes and codes) HP6 (1-3 story commercial building)
***P4. Resources Present:** ☑ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other

P5a. Photograph or Drawing (Photograph required for buildings, structures and objects)



P5b. Description of Photo: (View, date, accession #) West (primary) façade, viewed facing northeast, 3/20/2019

***P6. Date Constructed/Age and Sources:**
☑Historic ☐ Prehistoric ☐ Both
1968 (City of Los Angeles, Department of Building and Safety)

***P7. Owner and Address:**
Lankershim Crossing LLC
4751 Wilshire Boulevard, #110
Los Angeles, CA 90010

***P8. Recorded by:** (Name, affiliation, address)
Katrina Castañeda, ICF
555 W. 5th Street, Suite 3100
Los Angeles, CA 90013

***P9. Date Recorded:** 6/4/2019
***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** Katrina Castañeda, Andrew Bursan, and Colleen Davis, ICF, 2019. *7940 Lankershim Boulevard, Historical Resources Technical Report*. May (ICF 00047.19) Los Angeles, CA. Prepared for DLA Piper, LLC, Los Angeles, CA.
***Attachments:** ☐NONE ☐ Location Map ☐ Sketch Map ☑ Continuation Sheet ☑ Building, Structure, and Object Record ☐ Archaeological Record ☐District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record

***Resource Name or #** (Assigned by recorder) 7934 Lankershim Boulevard
B1. Historic Name: N/A
B2. Common Name: N/A
B3. Original Use Commercial Office Building B4. Present Use: Commercial Office Building
***B5. Architectural Style:** Mid-Century Modern
***B6. Construction History:** (Construction date, alteration, and date of alterations)

In January 1968, the City of Los Angeles issued a Certificate of Occupancy for a: one-story and mezzanine, type V, 74-foot x 106-foot retail sales and display building with 16 parking spaces in front of the building (City Permit No. VN18963/67). In 1974, the 20-foot-tall, 70-square-foot acrylic face pole sign currently located south of the building was installed on the property (City Permit No. VN18963/67).

***B7. Moved?** ☑ No ☐ Yes ☐ Unknown **Date:** N/A **Original Location:** N/A
***B8. Related Features:** N/A
B9a. Architect: Ebbe Videriksen b. Builder: Unknown
***B10. Significance: Theme** N/A **Area** N/A
Period of Significance N/A **Property Type** N/A **Applicable Criteria** N/A

Historic Context

Spanish occupation of California began in 1769, at Mission San Diego de Alcalá; Mission San Gabriel was established in in 1771. Established as a civilian settlement on September 4, 1781, at the behest of the Spanish royal governor of California, the City of Los Angeles began as the Los Angeles Pueblo. In 1797, in the northwest San Fernando Valley (SFV), Franciscan missionaries established Mission San Fernando Rey de España. Mexico rebelled against Spain in 1810, and by 1821, Mexico, including California, achieved independence. The Mexican Republic began to grant private land to citizens to encourage immigration to California; huge land grant ranchos took up large sections of land. In 1833, Mexico declared an end to the Missions and secularized the religious order's land holdings. The area became known as Rancho Ex-Mission San Fernando by the mid-nineteenth century.

At the turn of the century, railroads and other early signs of urban development appeared in the SFV. Southern Pacific and Pacific Electric connected cities, and the California Aqueduct's arrival in 1913 jumpstarted agricultural and ranching production, largely contributing to the SFV's legacy as rich farmland, which continued to boast swaths of agricultural land for wheat, citrus, and olives into the twentieth century (Roderick 2001). (See continuation sheet.)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** (See continuation sheet.)

B13. Remarks: N/A

***B14. Evaluator:** Katrina Castañeda, ICF

***Date of Evaluation:** 6/4/2019
(This space reserved for official comments.)

(Sketch Map with north arrow required.)



***B10. Significance** (continued):

Relatively undeveloped through the 1910s, the Sun Valley area was connected to industry in Los Angeles and San Bernardino through the construction of California State Route 99, beginning in 1915 (HRG 2015). Due to the formation of the motion picture industry, increased manufacturing, and boosterism, the coming decades saw a dramatic increase in population. During the 1920s, the population of Los Angeles nearly doubled, growing from approximately 0.75 million to 1.2 million. Rapid development of single-family residential tracts in newly platted neighborhoods would help alleviate the housing crisis.

The automobile enabled many to live even greater distances from jobs, retail, and services and lessened dependence on a central downtown for any or all of those needs. As the decades rolled by, the trend of decentralization gained momentum. Although the Los Angeles Basin was not yet fully built out, after 1930, City officials and developers turned their heads north, to the SFV, as an auspicious area for the City's expansion. Following World War II, returning servicemen, defense workers, and employees of the Lockheed Air Terminal in Burbank contributed further to the area's rapid growth, transforming the Sun Valley area from primarily agricultural land to highly urbanized in only a few decades (HRG 2015).

Arterial Commercial Development (1880–1950)
The street layout in the SFV is characterized by wide arterial boulevards, feeder streets, and regular street grids. Early surveyors of the 1880s platted large tracts in the area, making way for future subdivisions (Roderick 2001:42–45). The 1941 *Master Plan of Highways for Los Angeles County* led to several north-south and east-west routes and identifiable arterials, such as Sepulveda, Reseda, Van Nuys, and Lankershim boulevards and San Fernando Road, all of which span numerous cities. Although these streets had been laid out for decades, a growing postwar population necessitated development along these streets. As single-family residential tracts of housing were built out, thousands of residents filled the street grids of the SFV, and commercial development serving the new residents quickly followed. By the mid-1960s, in fact, planning experts noted the overabundance of commercially zoned land along arterials, "perhaps up to four times that needed by the number of residents" (Prosser 2017:15–16).

The 2017 SurveyLA Citywide Historic Context Statement for Commercial Development: Neighborhood Commercial Development names three patterns by which neighborhood-level commercial development occurred in the City. First, starting in the 1920s, builders constructed elite department stores and larger retailers as attached storefronts along or near streetcar lines, with parking in the rear. Second, following World War II, retailers began building and occupying freestanding buildings, serving new neighborhoods, and providing their own onsite parking. These buildings incorporated programmatic and advertisement-type designs. The third type of development, the neighborhood shopping center, emerged by the mid-1950s. Characterized by onsite parking spaces in front of the building, businesses in a neighborhood shopping center could be in a stand-alone building or in a retail space as part of a collection of attached retail outlets (Prosser 2017:18).

Under this context, an eligible neighborhood commercial resource is one that illustrates how goods and services were provided within a neighborhood setting served by the automobile, "[illustrating] how community life was conducted within a commercial district," and reflects architectural styles and parking patterns from the property's period of construction "(Prosser 2017:35). In addition, an individually eligible property would need to retain integrity of location, design, materials, feeling, and association.

SurveyLA identified an eligible example of this context in the SFV as follows:

- **The Lankershim Commercial Corridor Historic District,** along the 5600 block of Lankershim Boulevard from Tujunga Avenue to Collins Street, located 3 miles south of the study area in North Hollywood, is significant as a late example of arterial commercial development. Dating from the 1930s to the 1950s, the properties that make up the district are tightly concentrated, neighborhood-scale storefronts that "maintain a relationship to the street and to each other that is found in older neighborhoods" (Prosser 2017:15).

Japanese Americans in the San Fernando Valley
Attracted by agricultural opportunities and vast open spaces, Japanese immigrants, most of whom had prior farming experience, first began to populate the SFV at the turn of the twentieth century. By 1905, at least 23 Japanese residents lived in the SFV, with at least a third of them concentrated in the west edge of present-day Glendale, along the Los Angeles River (Barraclough 2011:51).

During the 1910s and 1920s, most Japanese immigrants in the SFV settled on farmland in the northeast portion of the SFV on land encompassing the present-day communities of Sun Valley, Pacoima, Arleta, Sunland, Tujunga, Hansen Heights, and the northern end of North Hollywood. The area's open space and access to water at Big Tujunga Creek made it desirable for farming. Perhaps owing to their prior agricultural experience, Japanese farmers in the area proved adept at growing a variety of crops and established themselves quickly as independent farmers. While some immigrants worked as farm laborers, others started truck farms or small-scale farming operations (usually less than 60 acres) that produced a diverse mix of crops intended for market sale. Through hard work, innovative farming techniques, and highly cohesive intra-ethnic labor organizations, by the 1920s, Japanese farmers gained a virtual monopoly on the local production of

crops such as berries, flowers, and many vegetables (Barraclough 2011:51–54). By the 1920 Census, 137 Japanese farming families lived in the northeast SFV. That number grew to 165 families by 1930, with heavy concentrations of farms and residences in surrounding neighborhoods, such as Pacoima, north of Glenoaks Boulevard (roughly 5 miles north of the study area), and in Arleta, near Laurel Canyon Boulevard (roughly 4 miles northwest of the study area).

Although the majority of the Japanese residents were involved in agricultural pursuits prior to World War II, a small concentration of Japanese-owned businesses and organizations sprung up in the diverse community of Pacoima in the 1920s and 1930s. Most Japanese in the area still traveled to Little Tokyo, near downtown Los Angeles, for Japanese related goods and services (HRG 2018:35). Most notable among local pre-war Japanese institutions was the San Fernando Valley Language Institute, which opened in Pacoima in 1924 to teach Japanese language and writing to the Nisei (second-generation, American-born Japanese Americans) youth of immigrant flower and vegetable growers. As many as 3,200 Japanese, about half of whom were U.S. citizens, lived in the SFV prior to the beginning of World War II, before their forced removal and incarceration (Park 2014:30–31).

In the days, weeks, and months following the December 7, 1941 attack on Pearl Harbor, Federal Bureau of Investigation agents detained Japanese people, both immigrants and American citizens, throughout the Southland. The United States government forced farmers of Japanese descent in the SFV to vacate their farmlands in response to Executive Order 9066. Initially held in a Conservation Corps facility in Lakeview Terrace, government officials then sent detainees to permanent camps throughout the western United States. Many sold most of their personal belongings prior to their relocation to camps (Park 2014:31–33).

When the American government finally released Japanese Americans from camps at the end of World War II, the former detainees experienced structural and social difficulties with resettlement. Although many Japanese Americans from the SFV returned to the same area of the northeast SFV, many had lost considerable wealth due to dispersion of personal assets prior to relocation and were now subject to racially restrictive covenants in many communities. Due to limited income and racial exclusion in many neighborhoods, most Japanese Americans returning to the SFV sought alternative living arrangements in deserted army barracks and trailer camps. From 1945 to 1956, approximately 5,000 Japanese Americans, many of whom had pre-war roots in the SFV, lived in government trailer camps in the communities of Sun Valley and Burbank. During their time in these trailer camps, residents faced shoddy living conditions and a degree of backlash from nearby white homeowners.

By the mid-1950s, these camps ceased operation because most inhabitants had accumulated enough money to purchase or rent modest homes in eastern SFV communities (Park 2014:34–35). While some Japanese Americans returning to the SFV after World War II worked in traditional agriculture-related occupations, such as operating nurseries and working as gardeners, others worked for or operated fish markets, appliance repair shops, restaurants, hardware stores, and other working-class professions. Generally, Japanese Americans settled in communities east of Sepulveda Boulevard, where neighborhood racial covenants were not as restrictive as other parts of the SFV. These communities included Van Nuys, Sylmar, Arleta, and North Hollywood, where the study area is located. There were especially high concentrations of Japanese Americans in Sun Valley and Pacoima, where, per the 1960 Census, they totaled 2,364 (Tamaki 1997).

The 1948 Supreme Court decision in *Shelley v. Kraemer* and the 1968 Fair Housing Act gradually lifted enforcement of racially restrictive housing covenants. As a result, Japanese Americans gained greater access to higher education and more lucrative careers, and the demographic makeup of the SFV's Japanese community began to shift (Park 2014:38). By the 1970s, Japanese Americans had spread throughout the SFV, with access to housing in communities that formerly excluded them, and were no longer concentrated only in communities east of Sepulveda Boulevard. As of 1997, roughly 30,000 Japanese Americans lived in the SFV (MacGregor 1999).The following describes eligible examples of this context in the SFV:

- **The San Fernando Valley Japanese American Community Center** (SFVJACC), at 12953 Branford Street in Pacoima. Opened in 1959, the SFVJACC represents perhaps the most significant and enduring legacy of postwar Japanese American community activism and cultural solidarity in the SFV. Although located in Pacoima, the center has historically served Japanese Americans from the entire SFV and beyond. The SFVJACC dates back to the 1920s-era San Fernando Valley Language Institute. During the postwar era, Japanese people in the SFV aimed to create a permanent center for their organization so as to preserve their cultural heritage and revive traditions of the pre-war community, as well as provide adult welfare programs and youth education (Park 2014:36–38). The SFVJACC first acquired the land for the community center in 1951; over the following eight years, the local Japanese American community raised $127,000 to build the community center facilities that Japanese American architect Kazumi Adachi designed. Since its creation, the SFVJACC has provided classes in traditional dancing and flower arrangement, language classes, and adult welfare. Today, the community center still remains an active and an important cultural hub for Japanese Americans residing in the SFV (Tamaki 1997).
- **The Hongwanji Buddhist Temple**, located at 9450 Remick Avenue in Pacoima, is located on the same block as the SFVJACC. Built in 1960, this was the SFV's first permanent Buddhist temple. University of Southern California School of Architecture-trained Japanese architect Y. Tom Makino designed the temple, adding to his portfolio of Mid-Century Modern religious institutions. Evident in its design, "the aesthetic minimalism of Mid-Century Modern style architecture and pavilion-

plan designs taught at the university were consistent with Japanese American architects' cultural heritage" (HRG 2018:64, Appendix 15).

Japanese-American Nurseries

A nursery is a component of the agriculture business in which trees, shrubs, flowers, and other plants are grown and sold on one property. While nurseries are related to the cut-flower business, they are distinct in that in addition to plants being sold in nurseries, they are also grown onsite. The first recorded nursery was established in 1750, when William Prince opened a nursery in Flushing, New York (Pinney 1976:1). In 1908, Los Angeles had approximately 30 florists and 60 nurseries (Lyons 2017:3). Commercial horticulture is an integral component of the designed built environment in Los Angeles and nurseries are often expression of the city's Japanese-American historic context.

According to a guidebook for establishing a nursery business, facility aesthetics are unimportant because customers rarely set foot on the nursery property. For the same reason, nurseries need not be located in expensive or densely developed areas. Rather, a desirable location for a nursery is along a corridor or highly trafficked freeway (Pinney 1976:20–25). A typical nursery includes an office, acreage for growing plants, and greenhouse(s) equipped with water and heating systems (Yagasaki 1982:64).

Local Japanese American history overlaps with the history of nursery development, as Japanese Americans were heavily involved in the nursery business and other agricultural trades. Japanese Americans provided a skilled agricultural workforce and hundreds of nurseries throughout California prior to and following World War II. They also contributed pioneering farming techniques, such as growing mums with multiple blooms on one stalk and "bunching" (Lyons 2017:4).[1] As early as 1892, Japanese Americans, including Sotaro Endo, Jinnosuke Kobata, and Fusataro Adachi, established themselves in Downtown Los Angeles as prominent agriculturalists, and formed the leadership of the Southern California Flower Market (Yagasaki 1982:106–107). Japanese American gardeners organized in labor unions and trade associations, such as the League of Southern California Japanese Gardeners, and through the League's monthly publications of *Gadena no Tomo*, originally called *The Gardener's Monthly* (Hirahara 2000:77–87).

Following the Japanese American community's return from World War II internment, some former nursery operators had difficulty reentering the business. However, they convinced their friends to take part in the fairly unregulated and profitable business. As a result, dozens of Japanese Americans joined the nursery business (Hirahara 2000:79). Japanese American gardeners formally organized in 1949 as the Associated Gardeners of America and again in 1955 in response to the proposed Maloney Bill (Hirahara 2000:77–87).[2] According to Japanese telephone directories from 1956–1957, there were 148 Japanese-owned nurseries in Los Angeles, largely concentrated in Sawtelle and Gardena and scattered throughout other parts of Los Angeles (Barraclough 2012:54–55).

The 2018 *SurveyLA Historic Context Statement for Japanese Americans in Los Angeles* (HRG 2018:79–81) summarized the registration requirements for commercial properties (including nurseries) associated with Asian American businesses that are or may be:

- Strongly associated with the commercial and professional development of the Asian American community;
- Associated with a business that made important contributions to commercial growth and development in Los Angeles and specifically to the Asian American community;
- Founding or long-term location of a business significant to the Asian American community;
- May be associated with a business/corporation that has gained regional or national importance; and
- Should retain integrity of location, design, feeling, materials, and association.

Examples of eligible nurseries identified by SurveyLA include:

- **Sego Nursery at 12116 Burbank Boulevard in North Hollywood** is historically significant for its Googie-style architecture, as well as for its association with Sego Murakami, a locally prominent judo master who founded the nursery in 1948 upon his return from the Manzanar War Relocation Center. The Murakami Family continues to own and operate Sego Nursery (ARG 2013:35–36).

Mid-Century Modernism (1945-1970)

In the late 1950s and early 1960s in California, the Mid-Century Modern style arose from the Modern Movement as architects began to experiment with shapes, materials, and color in ways that deviated from "orthodox" Modernism. Southern California's architectural tradition

[1] "Bunching" is a Japanese method of tying vegetables together using raffia (a grass string). According to a 1924 *Los Angeles Times* article, prior to espousing the Japanese method, vegetable producers in SFV would waste their crop because they "did not know how to bunch it properly for [the] market" (Gast 1924:H9).

[2] The Maloney Bill, if passed, would have required maintenance gardeners to be licensed by the State of California. The organization working against the bill's passage formed the Southern California Gardeners' Federation (Barraclough 2012:54–55).

of experimentation with building technology and style, as well as the region's climate and postwar population boom, made it an ideal breeding ground for the style's growth. Under the umbrella of post-World War II Modernism, Mid-Century Modernism is a version that is more informally expressionist. It is adjusted with subtle ornamentation, adding sensory expressions of its design vocabulary by playing with massing, components such as columns, fenestration patterns, protruding and recessing elements, or palette. The style also manifests in the Post-and-Beam subtype, a result of advances in construction techniques that utilized steel or wood posts, beams, and expanses of glass to create uninterrupted glazed facades. Vernacular Mid-Century Modern buildings are characterized by low-pitched shed- or gable-roofed volumes, broadly overhanging eaves, and deeply recessed entries. Other features include planters integrated with exterior walls; slightly projecting mullions that add vertical accents to the horizontal emphasis of window bands and ribbons; screen walls, often of perforated concrete block or solid concrete block with two-dimensionally projecting geometric elements; canted walls, windows, or recessed entries, often with extensive glazing; and atrium or courtyard entry spaces. Mid-Century Modern-style commercial buildings typically incorporated bays of recessed and extensive plate-glass display windows (Christopher A. Joseph & Associates 2009:16; Historic Resources Group and Pasadena Heritage 2007:67).

Excellent examples of this style artfully combine organic palettes, novel building technologies, site planning techniques, and geometric angles and building forms to assert a relationship to the outdoors and express building materials. Overall, a property eligible under this context would display the spirit of modernism through its functionality, experimentation, and material expression.

Eligible examples of Mid-Century Modern style include:

- **Our Lady of the Holy Rosary Church** at 7800 Vineland Avenue in Sun Valley was designed by architect Thomas V. Merchant and built in 1964. Its expressionist design incorporates elliptical-perforated concrete screens and stylized Gothic arches. The front elevation presents a sculpture by acclaimed artist Roger Darricarrere, rendered espousing his *dalle de verre* technique, which incorporates pieces of colored slab glass set in a concrete matrix (HRG 2015:Appendix 22).
- **Pink Motel & Cadillac Jack's** at 9457-9475 San Fernando Road in Sun Valley is an example of roadside commercial architecture comprised of two buildings with a distinctive pink-and-blue paint scheme and monumental neon signage. The architect Joseph Thomulka incorporated decorative screen block walls, a playful fish-shaped swimming pool, and bands of storefront windows into its design.

Property History
Although the existing building was constructed in 1968, Allan and Carole Mori originally opened Mel-O-Dee Nursery at the subject property in 1949, housing their business on a mid-block property with a 30-foot by 40-foot lath house and an outdoor nursery in the rear (to the north and east) of the building (City Permit No. VN12785). The surrounding residential tract was developed in the 1950s.

The Mori family replaced the lath house with a new building in the late 1960s, commissioning local architect Ebbe Videriksen to design the building. They selected a design that would allow large displays and service counters to accommodate a growing business (City Permit No. VN12785); *Los Angeles Times* 1976:18). In January 1968, the City of Los Angeles issued a Certificate of Occupancy for a one-story and mezzanine 74-foot by 106-foot type V retail sales and display building with 16 parking spaces in front of the building (City Permit No. VN18963/67). In 1974, the 20-foot-tall, 70-square-foot acrylic face pole sign currently located south of the building was installed on the property (City Permit No. VN18963/67). In 1975, a *Los Angeles Times* article provided a drawing of the nursery (see Figure 5, below), noting its then-10-acre site (*Los Angeles Times* 1975). The following year, an advertisement in the *Los Angeles Times* provided a profile of Mel-O-Dee Nursery, noting the efforts of family members to continue the family business: their son, Norman, pursued a landscape design degree at Cal Poly Pomona and a contractor's license; Norman's friend, Clyde Miyata, managed the nursery; and Allan and Carole's daughter, Cindy, attended Pierce College and the Elva May School of Floristry. All three worked at Mel-O-Dee Nursery (*Los Angeles Times* 1976).

Evaluation

Criteria Related to Events or Broad Patterns of History
A: National Register of Historic Places
1: California Register of Historical Resources
1: City of Los Angeles Historic Cultural Monuments

The nursery business is strongly associated with Japanese-American community development. Both before and after World War II, members of the Japanese-American community established many businesses related to horticulture and floriculture. Specifically, during the post-World War II period, Japanese Americans operated dozens of nurseries in Los Angeles.

Mel-O-Dee Nursery has served the SFV for 70 years. Newspaper articles from the 1970s and 2000s characterize Mel-O-Dee Nursery as a successful family business. The Mori family established the Mel-O-Dee Nursery in 1949, replaced the original building with the current

building in 1968, and moved to a new location in Chatsworth, 15 miles west of the original location, in 2000. The Mel-O-Dee Nursery continues to operate in the Chatsworth location.

As a business, the Mel-O-Dee Nursery is directly associated with the resettlement of the Japanese American community in the Los Angeles area after their imprisonment during World War II. Allan and Carole Mori opened Mel-O-Dee Nursery in 1949, upon their release from imprisonment in the Santa Anita Assembly in Arcadia (Japanese-American Internee Data File 2005). The original 1949 building associated with the establishment of the Mori family's nursery business, however, is no longer extant.

As enforcement of racially restrictive covenants waned and antidiscrimination movements gained momentum during the 1960s and 70s, Japanese Americans gained greater access to educational opportunities, experienced upward mobility, expanded their professional and economic reach, and dispersed across the city (HRG 2018:67–73). Although horticulture and floriculture businesses persisted during this period, Japanese Americans increasingly engaged in professions requiring tertiary levels education, including architecture, teaching, and law. Members of this community also became heavily involved in the import/export business that burgeoned at this time between the United States and Japan.

The overall residential population of the SFV exploded during this period. Between 1947 and 1956, the Roscoe Trailer Camp, located approximately 1.5 miles from the project site, welcomed Japanese Americans returning from wartime incarceration. Approximately 6 miles north, in Pacoima, the eligible SFVJACC building rose in 1960 to serve the local community. Although the population of SFV Japanese Americans increased during this period, they were dispersed over a much wider geography than the older, established, concentrated enclaves, such as Little Tokyo, West Jefferson, and Sawtelle.

The existing 1968 building located at 7934 Lankershim Boulevard originally housed an individual, family-owned Japanese American nursery business in the SFV. It is not, however, importantly associated with the ethnic group during this period insofar as research has not uncovered any evidence that indicates that the property conforms to the registration requirements set forth by SurveyLA. Specifically, the existing building does not appear to be strongly associated with the commercial and professional development of the Asian American community; associated with a business that made important contributions to commercial growth and development in Los Angeles and specifically to the Asian American community; founded by or a long-term location of a business significant to the Asian American community; or associated with a business/corporation that has gained regional or national importance.

The 1968 building at 7934 Lankershim that once housed the Mel-O-Dee Nursery contrasts with the Sego Nursery located at 12116 W Burbank Boulevard. Sego Nursery. The Sego Nursery building dates to 1948. The business was established and the building constructed during the period when Japanese-Americans were returning from wartime incarceration and re-establishing themselves in Los Angeles. It continues to operate as a nursery. These direct associations, which the existing building at 7934 Lankershim lacks, render the Sego Nursery an eligible example.

Further, the 1968 construction of the building at 7934 Lankershim Boulevard sits outside of the period of significance for the Arterial Commercial Development context (1880–1950), and thus is ineligible within this context. Research uncovered neither important events related to this resource, nor associations between the resource and broad patterns of history.

For the reasons stated above, 7934 Lankershim Boulevard is not eligible under Criteria A/1/1.

Criteria Related to Association with Significant Persons
B: National Register of Historic Places
2: California Register of Historical Resources
2: City of Los Angeles Historic Cultural Monuments

Arizona-born Allan Akinobu Mori (1915–1996) and Carole Chiyono Mori (1915–1999), first-generation Japanese Americans, opened Mel-O-Dee Nursery in 1949. Before moving to California, they owned a grocery store in Colorado, and documentation suggests that Allan and Carole worked at the Colorado Steelworks in Amache, Colorado, until November 28, 1942. Carole and Allan relocated to the Santa Anita Assembly in Arcadia, California, as part of the Granada War Relocation Project (Japanese-American Internee Data File 2005). Allan's War Relocation Authority Form record indicates that he was a salesperson and that his father was a "Farm Operator [or] Manager." Carole's record indicates that she was a sales clerk and that her father was a "Farm Laborer" (Japanese-American Internee Data File 2005).

At the time of its construction in 1968, Allan and Carole Mori resided at 11664 Strathern Street, near their business located at 7934 Lankershim Boulevard. They owned the property until 2000. While they founded and sustained a successful local business, they do not appear to be individually historically significant in local, California, or national history. Research also did not reveal associations to any other significant persons in history. Therefore, 7934 Lankershim Boulevard is not eligible under Criteria B/2/2.

Criteria Related to Architectural Quality
C: National Register of Historic Places
3: California Register of Historical Resources
3: City of Los Angeles Historic Cultural Monuments

The building at 7934 Lankershim Boulevard is a fairly intact, albeit late and modest, example of Mid-Century Modern commercial architecture. It features extensive glass display windows, a broad low-pitched gabled roof, and integrated planters at the exterior walls, elements well suited to the building's decades-long use as a nursery business. While this building retains these features associated with the Mid-Century Modern style, it is a later example of the style whose overall aesthetic impression and material palette echo the design of Eichler homes from the late 1940s and early 1950s. Lacking playful engagement with massing, fenestration patterns, protruding and recessing elements, or palette, the building falls short of being an architecturally significant example of the style. In addition, the functional extensive glazing remains intact, but the purity of critical materials has diminished. For example, its wood siding has been painted, its planters clad with stucco, and the plants decorating the front elevation removed. This building is a late and unexceptional example of the style, does not exhibit high artistic value, and lacks design choices in massing and ornamentation that would present a fully expressionist Mid-Century Modern building. It is not, therefore, exemplary of a particular style, building type, time period, or construction method.

Born in 1926, architect Ebbe Videriksen designed a wide variety of building types. Videriksen graduated from the Horsens Technical College in Denmark in 1950. From 1967 to 1968, he served as the director of the American Institute of Architects' San Fernando Valley District (Gane and Koyl 1970:948). His body of work appears to focus on Southern California and includes a $40 million office complex (1981) in Ventura, adjacent to the Ventura County Government Center; a block-size office building at 4400 Coldwater Canyon Avenue (1983) in Studio City; resort condominiums in Marina Del Rey (1972) and Mammoth Lakes (1977); and the Fisherman's Wharf (1978) in Channel Islands Harbor, Oxnard (PCAD 2019). While Videriksen designed in a wide variety of architectural styles, including Mid-Century Modern and Late Modern, he designed these buildings decades after the height of the styles' popularity.

A review of academic and architectural literature databases did not reveal extensive laudatory coverage of Videriksen's body of work contemporaneously or retrospectively. The building located at 4400 Coldwater Canyon Boulevard in Los Angeles (1993) is mentioned but not praised in David Gebhard and Robert Winter's foundational *Los Angeles: An Architectural Guide*. Although a member of the American Institute of Architects, Videriksen has not been elected a fellow of that esteemed organization. Research did not reveal that any of Videriksen's designs have been listed in or determined eligible for listing in the NRHP, CRHR, or as an HCM. Based on the current understanding of Videriksen's body of work, therefore, he does not appear to be a master architect. Because Videriksen is does not appear to be master architect, this building cannot represent the work of a master.

Therefore, 7934 Lankershim Boulevard is not eligible under Criteria C/3/3.

Criteria Related to Archaeology and/or Information Potential
D: National Register of Historic Places
4: California Register of Historical Resources

Constructed during the historic period, the building's wood-frame construction has been thoroughly researched and is well understood. Research did not reveal any other aspects of this resource that are likely to reveal important historical or prehistorical information, and thus 7934 Lankershim Boulevard is unlikely to yield information important in prehistory or history and is thus not significant under Criteria D/4.

Significance Summary
The building at 7934 Lankershim Boulevard is not currently listed in, nor has it previously been found to be eligible for listing in, the NRHP, the CRHR, or as a City of Los Angeles HCM. This evaluation found that the building is not eligible for listing under any of the criteria listed above.

***B12. References (continued):**

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Additional Figures:



Photograph 2. West (primary) façade, viewed facing east, 3/20/2019



Photograph 3. Site viewed facing southeast, 3/20/2019



Photograph 4. Front planter detail, viewed facing northeast. ICF, 3/20/2019

Appendix C

Field Photographs of Buildings in Study Area

Photographs of Properties Located in the Indirect Study Area:



7901 Lankershim Boulevard



7906 Lankershim Boulevard



7915 Lankershim Boulevard



7919 Lankershim Boulevard



7923 Lankershim Boulevard



7945 Lankershim Boulevard



7947 Lankershim Boulevard



7980 Lankershim Boulevard



8004 Lankershim Boulevard



11671 Strathern Street



11647 Strathern Street



11641 Strathern Street



11636 Strathern Street



11635 Strathern Street



11634 Strathern Street



11630 Strathern Street



11626 Strathern Street



11620 Strathern Street



11641 Blythe Street



11637 Blythe Street



11631 Blythe Street



11628 Blythe Street



11627 Blythe Street



11622 Blythe Street



11619 Blythe Street



11616 Blythe Street



11673 Arminta Street



11667 Arminta Street



11665 Arminta Street



11659 Arminta Street



11655 Arminta Street



11649 Arminta Street



11645 Arminta Street



11639 Arminta Street



11633 Arminta Street



11625 Arminta Street



11621 Arminta Street

Appendix D

Energy Consumption Worksheets

Project Energy Calculations

Construction Energy

	fuel	MT	LBS	Gallons	Million BTU
CO2 from diesel - offroad equip & onroad trucks	diesel	1762	3883470	172528	23,702
CO2 from gasoline - worker commute	gas	374	824525	42597	5,126
Total		2,135.5	4,707,995	215,125	**28,828**

Operational Outputs from CalEEMod

Proposed Project	kbtu of NG/yr	kwh of elec/yr	Annual VMT	Vehicle CO2 (MT/yr)	Gallons/yr.
Natural Gas	6,611,610				
Electricity		3,533,210			
Mobile - Gasoline			9,111,863	3645.50	415,204.81
Mobile - Diesel				157.27	15,403.21

Operational Energy

Proposed Project			BTU/Year	Million BTU/Year
Electricity	3,533,210	kwh	12,055,312,520	12,055
Natural Gas	6,611,610	kbtu	6,611,610,000	6,612
Mobile			52,078,948,705	52,079
				70,746

BTU per kWh	3,412	
LBs CO2 per gal diesel	22.5	CR 2017, Transport Fuels, Table 13.1
LBs CO2 per gal gasoline	19.4	CR 2017, Transport Fuels, Table 13.1
LBs per MT	2204.62	
Energy Unit	BTU/gal	
Gasoline	120,333	US EIA 2019
Diesel	137,381	US EIA 2019
Million	1000000	

Appendix E
Geotechnical Report

BOARD OF
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201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

SOILS REPORT APPROVAL LETTER

April 28, 2020

LOG # 112843
SOILS/GEOLOGY FILE - 2

Lankershim Crossing, LLC
23622 Calabasas Road, Suite 121
Calabasas, CA 91302

TRACT:	Lankershim Ranch Land and Water Co. (M R 31-39/44)
LOT(S):	PT 24 (Arb.'s 5, 6, 7, 8, 9, 10, 11 & 25) // PT 24 (Arb.'s 5, 13, 37 & 42)
LOCATION:	7918 - 7946 N. Lankershim Blvd. // 11650 - 11664 W. Strathern St.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Soils Report	BG 23185	03/30/2020	Byer Geotechnical, Inc.
Oversized Doc(s).	"	"	"

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed 7-story mixed-use building over 1-subterranean parking level, and a 2-story at-grade recreation building, as shown on the Site Plan and Cross Sections A through E of the 03/30/2020 report. Retaining walls up to 14 feet high are proposed per the consultants.

Four borings were performed to depths ranging from 21.5 to 41.5 feet. In addition, five borings and three CPT's to depths ranging from 31.5 to 51.5 feet were previously performed by another consultant, along with two shallow percolation tests. The earth materials at the subsurface exploration locations consist of up to 3 feet of uncertified fill underlain by alluvium. According to the consultants, groundwater was not encountered to the maximum depths explored of 51.5 feet, and historically highest groundwater level is on the order of 130 feet below the ground surface. The site is relatively level.

The consultants recommend to support the proposed structure(s) on conventional foundations bearing on native undisturbed soils (for the 7-story building over 1-subterranean parking level), and the 2-story at-grade recreation building on a blanket of properly placed fill a minimum of 3 feet thick below the bottom of the footings.

The referenced report is acceptable, provided the following conditions are complied with during site development:

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2020 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The entire site shall be brought up to the current Code standard (7005.9).

2. Approval shall be obtained from the Department of Public Works, Bureau of Engineering, Development Services and Permits Program for the proposed removal of support and/or retaining of slopes adjoining to public way (3307.3.2).

   6262 Van Nuys Blvd. Ste 351, Van Nuys (818) 374-4605

3. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

4. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.

5. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.

6. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).

7. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.

8. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).

9. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet, whichever is greater (7011.3).

10. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).

11. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).

12. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cubic yards (7007.1).

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13. All loose foundation excavation material shall be removed prior to commencement of framing (7005.3).

14. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).

15. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be supported by shoring or constructed using ABC slot cuts, as recommended. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)

16. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).

17. The soils engineer shall review and approve the shoring plans prior to issuance of the permit (3307.3.2).

18. Prior to the issuance of the permits, the soils engineer and/or the structural designer shall evaluate the surcharge loads used in the report calculations for the design of the retaining walls and shoring. If the surcharge loads used in the calculations do not conform to the actual surcharge loads, the soil engineer shall submit a supplementary report with revised recommendations to the Department for approval.

19. Unsurcharged temporary excavations exposing fill shall be trimmed back at a gradient not exceeding 1:1, as recommended.

20. Unsurcharged temporary excavation exposing alluvium may be cut vertical up to 5 feet with level backslope, as recommended.

21. Unsurcharged temporary excavation exposing alluvium may be cut vertical up to 4 feet. For excavations over 4 feet, the lower 4 feet may be cut vertically and the portion of the excavation above 4 feet shall be trimmed back at a gradient not exceeding 1:1, as recommended.

22. Shoring shall be designed for the lateral earth pressures as specified in the section titled "Soldier Piles" on page 21 of the 03/30/2020 report; all surcharge loads shall be included into the design. Total lateral load on shoring piles shall be determined by multiplying the recommended EFP by the pile spacing.

23. Shoring shall be designed for a maximum lateral deflection of 1 inch, provided there are no structures within a 1:1 plane projected up from the base of the excavation. Where a structure is within a 1:1 plane projected up from the base of the excavation, shoring shall be designed for a maximum lateral deflection of ½ inch, or to a lower deflection determined by the consultant that does not present any potential hazard to the adjacent structure.

24. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.

25. Surcharged ABC slot-cut method may be used for temporary excavations with each slot-cut not exceeding 5 feet in height and not exceeding 8 feet in width, as recommended. The surcharge load shall not exceed the value given in the report. The soils engineer shall determine the clearance between the excavation and the existing foundation. The soils engineer shall verify in the field if the existing earth materials are stable in the slot-cut excavation. Each slot shall be inspected by the soils engineer and approved in writing prior to any worker access.

26. All foundations shall derive entire support from native undisturbed soils, or a blanket of properly placed fill (a minimum of 3 feet thick below the bottom of the footings), as recommended and approved by the soils engineer by inspection.

27. Footings supported on approved compacted fill shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.

28. Slabs placed on approved compacted fill shall be at least 3½ inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.

29. The seismic design shall be based on a Site Class D as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.

30. Cantilevered retaining walls up to 14 feet in height with a level backfill shall be designed for a minimum equivalent fluid pressure (EFP) of 43 PCF, as specified on page 17 of the 03/30/2020 report. All surcharge loads shall be incorporated into the design.

31. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on page 18 of the 03/30/2020 report (1803.5.12).

32. Basement walls and other walls in which horizontal movement is restricted at the top shall be designed for at-rest pressure as specified on page 18 of the 03/30/2020 report (1610.1). All surcharge loads shall be included into the design.

33. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).

34. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).

35. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).

36. Basement walls and floors shall be waterproofed/damp-proofed with an LA City approved "Below-grade" waterproofing/damp-proofing material with a research report number (104.2.6).

37. Prefabricated drainage composites (Miradrain, Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.

38. The structures shall be connected to the public sewer system per P/BC 2020-027.

39. The infiltration facility design and construction shall comply with the minimum requirements specified in the Information Bulletin P/BC 2020-118.

40. The infiltration system (dry well) shall be constructed within the landscaping area at the southeast portion of the site, as recommended on pages 26 and 27 of the 03/30/2020 report.

41. Infiltration shall occur below a depth of 10 feet, as recommended.

42. The construction of the infiltration system shall be provided under the inspection and approval of the soils engineer.

43. An overflow outlet shall be provided to conduct water to the street in the event that the infiltration system capacity is exceeded. (P/BC 2020-118)

44. Approval for the proposed infiltration system from the Bureau of Sanitation, Department of Public Works shall be secured.

45. A minimum distance of 10 feet (in any direction) shall be provided from adjacent proposed/existing footings to the discharge of the proposed infiltration system. A minimum distance of 10 feet horizontally shall be provided from private property lines to the proposed infiltration system.

46. The dry well area between the blank casing and the surround soils shall be sealed to a minimum depth of 10 feet below the bottom of any adjacent foundation with bentonite slurry (or equivalent) to prevent unintended leakage or horizontal infiltration.

47. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).

48. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).

49. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

50. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; shoring; ABC slot cuts; protection fences; and, dust and traffic control will be scheduled (108.9.1).

51. Installation of shoring and/or slot cutting shall be performed under the inspection and approval of the soils engineer and deputy grading inspector (1705.6, 1705.8).

52. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).

53. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.

GLEN RAAD
Geotechnical Engineer I

Log No. 112843
213-482-0480

cc: GP Design Group, LLC, Applicant
Byer Geotechnical, Inc., Project Consultant
VN District Office

BYER GEOTECHNICAL, INC.

March 30, 2020
BG 23185

Lankershim Crossing, LLC
23622 Calabasas Road #121
Calabasas, California 91302

Attention: Mr. Manny Kozar

Subject

Transmittal of Geotechnical Engineering Exploration
Proposed Seven-Story Mixed-Use Building over One Subterranean Parking Level
and Two-Story At-Grade Recreation Building
Arbs. 5, 6, 7, 8, 9, 10, 11, 13, 25, 37, and 42, Portion of Lot 24,
Lankershim Ranch Land and Water Co. Tract
7918 - 7946 North Lankershim Boulevard and 11650 - 11664 West Strathern Street
North Hollywood, California

Dear Mr. Kozar:

Byer Geotechnical has completed our report dated March 30, 2020, which describes the geotechnical engineering conditions with respect to the proposed project. The reviewing agency for this document is City of Los Angeles, Department of Building and Safety (LADBS). The reviewing agency requires two unbound copies, one with a wet signature, a CD (PDF format), an application form, and a filing fee. Copies of the report have been distributed as follows:

(4) Addressee (E-mail and Mail)
(1) Lankershim Crossing, LLC, Attention: Liat Kozar (E-mail)

It is our understanding that you or your representative will file the report and CD with the LADBS. Please review the report carefully prior to submittal to the governmental agency. Questions concerning the report should be directed to the undersigned. Byer Geotechnical appreciates the opportunity to offer our consultation and advice on this project.

Very truly yours,
BYER GEOTECHNICAL, INC.

Raffi S. Babayan
Senior Project Engineer

BYER GEOTECHNICAL, INC.

GEOTECHNICAL ENGINEERING EXPLORATION
PROPOSED SEVEN-STORY MIXED-USE BUILDING OVER
ONE SUBTERRANEAN PARKING LEVEL AND
TWO-STORY AT-GRADE RECREATION BUILDING
ARBS. 5, 6, 7, 8, 9, 10, 11, 13, 25, 37, AND 42, PORTION OF LOT 24,
LANKERSHIM RANCH LAND AND WATER CO. TRACT
7918 - 7946 NORTH LANKERSHIM BOULEVARD AND
11650 - 11664 WEST STRATHERN STREET
NORTH HOLLYWOOD, CALIFORNIA
FOR LANKERSHIM CROSSING, LLC
BYER GEOTECHNICAL, INC., PROJECT NUMBER BG 23185
MARCH 30, 2020

1461 East Chevy Chase Drive, Suite 200 • Glendale, California 91206 • tel 818.549.9959 • fax 818.543.3747 • www.byergeo.com

GEOTECHNICAL ENGINEERING EXPLORATION
PROPOSED SEVEN-STORY MIXED-USE BUILDING OVER
ONE SUBTERRANEAN PARKING LEVEL AND
TWO-STORY AT-GRADE RECREATION BUILDING
ARBS. 5, 6, 7, 8, 9, 10, 11, 13, 25, 37, AND 42, PORTION OF LOT 24,
LANKERSHIM RANCH LAND AND WATER CO. TRACT
7918 - 7946 NORTH LANKERSHIM BOULEVARD AND
11650 - 11664 WEST STRATHERN STREET
NORTH HOLLYWOOD, CALIFORNIA
FOR LANKERSHIM CROSSING, LLC
BYER GEOTECHNICAL, INC., PROJECT NUMBER BG 23185
MARCH 30, 2020

INTRODUCTION

This report has been prepared per our signed Agreement and summarizes findings of Byer Geotechnical, Inc., geotechnical engineering exploration performed on the subject site. The purpose of this study is to evaluate the nature, distribution, and the engineering properties of the earth materials underlying the site with respect to construction of the proposed project. This report is intended to assist in the design and completion of the proposed project and to reduce geotechnical risks that may affect the project. The professional opinions and advice presented in this report are based upon commonly accepted exploration standards and are subject to the AGREEMENT with TERMS AND CONDITIONS, and the GENERAL CONDITIONS AND NOTICE section of this report. No warranty is expressed or implied by the issuing of this report.

PROPOSED PROJECT

The scope of the proposed project was determined from consultation with Mr. Manny Kozar and the undated preliminary plans prepared by Kamran Tabrizi Architect & Associates. Final plans have not been prepared and await the conclusions and recommendations of this report. The project consists of construction of a seven-story mixed-use building over one subterranean parking level, planned to occupy the majority of the site. In addition, a two-story at-grade Recreation Building is planned in the southeast corner. A cul-de-sac street improvement is planned at the west terminus of Blythe Street, which is located just north of the proposed Recreation Building, as shown on the enclosed Site Plan. The ground floor of the proposed mixed-use building will consist of retail/restaurant spaces fronting on Lankershim Boulevard, and commercial parking spaces in rear. Retaining walls up to 14 feet high are planned to support the excavation for the subterranean parking level. Column loads (dead and live) are expected to be moderate. Grading is anticipated to consist of removal and recompaction of earth materials to create a compacted fill pad for support of the two-story, at-grade Recreation Building. Access to the ground floor and subterranean level parking will be provided by two ramps that are planned in the southwest and northeast corners of the building via Lankershim Boulevard and Strathern Street, respectively.

RESEARCH - PRIOR WORK

The following geotechnical report was prepared for the property by Twining Consulting (Project No. 160511.1):

> *Updated Geotechnical Evaluation Report, Lankershim Square, 7934 Lankershim Boulevard, North Hollywood, California,* dated June 15, 2017.

This report was prepared for a mixed-use residential-shopping center development consisting of three buildings (A, D, and E) up to three stories in height. A subterranean parking garage was planned under Building E. The field exploration included five, 8-inch-diameter hollow-stem-auger borings (TB1 through TB5) and three Cone Penetration Test soundings (CPT1 through CPT3) to

approximate depths of 31½ to 51½ feet below ground surface. In addition, two shallow percolation tests (P1 and P2) were conducted onsite to determine the feasibility of infiltrating water into the site soils. Excerpts from the referenced report are included in Appendix I, including a copy of the boring logs and an Exploration Location Map showing the locations of the borings and CPTs by Twining Consulting.

Based on our conversation with the client, that report was not submitted for review by the LADBS. The Twining Consulting report is provided for information purposes only. The field exploration data contained in the above-referenced report was incorporated as part of our work on this project. The conclusions and recommendations included in this report are based solely on the field data, results of laboratory testing, and engineering analysis performed by Byer Geotechnical as part of this study.

EXPLORATION

The scope of the field exploration was determined from our initial site visit and consultation with Mr. Manny Kozar. The undated preliminary plans prepared by Kamran Tabrizi Architect & Associates were a guide to our work on this project. Exploration was conducted using techniques normally applied to this type of project in this setting. This report is limited to the area of the exploration and the proposed project as shown on the enclosed Site Plan and cross sections. The scope of this exploration did not include an assessment of general site environmental conditions for the presence of contaminants in the earth materials and groundwater. Conditions affecting portions of the property outside the area explored are beyond the scope of this report.

Exploration was conducted on January 30, 2020, with the aid of a hollow-stem-auger drill rig. It included drilling four borings (BG1 - BG4) to approximate depths of 21½ to 41½ feet below ground surface. Samples of the earth materials were obtained and delivered to our soils engineering laboratory for testing and analysis. The borings tailings were visually logged by the project soils engineer. Following drilling, sampling, and logging, the borings were backfilled and mechanically tamped.

Office tasks included laboratory testing of selected soil samples, review of published maps and photos for the area, review of our files, review of agency files, preparation of cross sections, preparation of the Site Plan, engineering analysis, and preparation of this report. Earth materials exposed in the borings are described on the enclosed Log of Borings. Appendix II contains a discussion of the laboratory testing procedures and results.

The proposed project and the locations of the recent borings and previous Twining borings and CPT soundings are shown on the enclosed Site Plan. Subsurface distribution of the earth materials and the proposed project are shown on Sections A through E.

SITE DESCRIPTION

The subject property consists of eleven contiguous relatively-level parcels located in the easternmost portion of the San Fernando Valley, in the North Hollywood section of the city of Los Angeles, California (34.2149° N Latitude, 118.3868° W Longitude). As depicted on the enclosed Aerial Vicinity Map, the property is bounded by Strathern Street and a restaurant on the north, single-family residences and a commercial building on the east and south, and Lankershim Boulevard on the west. It is located approximately 4 miles north of the Ventura (101) Freeway and 1.25 miles east of the Hollywood (170) Freeway. The site is developed with a one-story commercial building on the west portion. The remainder of the property is used as a landscaping and building materials stock yard. The surrounding area has been developed with single-family residences and commercial establishments along Lankershim Boulevard.

Past grading on the site has consisted of placing minor fill to create a level site. Vegetation on the site is sparse. Surface drainage is by sheetflow runoff down the contours of the land to the south.

GROUNDWATER

Groundwater was not encountered in the borings by Byer Geotechnical or by Twining Consulting to a maximum depth of 51½ feet. Based on our review of the hydrological records of Los Angeles County Department of Public Works, groundwater levels in the vicinity of the site ranged from 170.3 to 339.3 feet below existing grade, between 1986 and 2009 (LADPW, 2020). These measurements were obtained from a monitoring well (No. 4918A) that is located approximately one-quarter of a mile east of the subject site.

In *Seismic Hazard Zone Report 08,* the California Geological Survey (CGS) has estimated the historically-highest groundwater level at the site was on the order of 130 feet below ground surface (CGS, 1997), as shown on the enclosed Historic-High Groundwater Map.

Seasonal fluctuations in groundwater levels occur due to variations in climate, irrigation, development, and other factors not evident at the time of the exploration. Groundwater levels may also differ across the site. Groundwater can saturate earth materials causing subsidence or instability of slopes.

METHANE ZONES

The City of Los Angeles Ordinance No. 175790 established methane mitigation requirements and includes construction standards to control methane intrusion into buildings. The subject property is not mapped within either a Methane Zone or Methane Buffer Zone.

EARTH MATERIALS

Fill (Afu)

Fill, associated with previous site grading, underlies the subject site to a maximum observed depth of three feet in the borings by Twining Consulting. Greater depths of fill may occur locally. The fill consists of silty sand that is olive-brown to dark brown, and dry to slightly moist. The existing fill is not suitable for support of any type of structure. Most of the existing fill is expected to be removed during the excavation for the subterranean parking level. Recommendations for ground improvement for the proposed Recreation Building are included in the "Site Preparation-Removals" section of this report.

Alluvium (Qa/Qyf2)

Natural alluvial fan deposits associated with the Pacoima Tujunga Fan typical for this portion of North Hollywood underlie the existing fill and were encountered in the borings. The alluvium predominately consists of layers of poorly-graded to gravelly sand that are tan to olive-brown, dry to slightly moist, and medium dense to very dense.

GEOTECHNICAL CHARACTERISTICS

In-Situ Percolation Testing

To determine the infiltration rate and evaluate the infiltration characteristics of the earth materials underlying the subject site, *in-situ* percolation testing was conducted in Boring BG1, which was drilled to a depth of 41½ feet below ground surface. Following drilling, a PVC pipe was inserted into the boring, covered with a filter sock and surrounded with onsite excavated soil. The test was performed in accordance with the Administrative Manual of the County of Los Angeles, Department of Public Works, Section GS200.2, dated June 30, 2017. The upper 10 feet of the pipe was solid.

The lower 30 feet was screened to allow water infiltration below the upper 10 feet of the earth materials. The boring was presoaked below the depth of 10 feet utilizing water from the drill rig and was allowed to set for at least 30 minutes. Following presoaking, a falling-head percolation test was conducted. The test consisted of ceasing the flow of water into the boring and measuring the drop of the water surface (head) at 10-minute intervals. The test was repeated eight times.

The results of the infiltration rate calculations are shown on the enclosed Calculation Sheet #1. Based on the results of *in-situ* percolation testing, the calculated infiltration rate for the earth materials between the depths of 10 and 40 feet is estimated to be 10.5 inches-per-hour (7.4×10^{-3} centimeters-per-second).

The calculated infiltration rate does not include a reduction factor, which should be determined in accordance with the Administrative Manual, Section GS200.2.

Perched Water

Perched water can occur on finer-grained, relatively impermeable soil layers. Poorly- and well-graded sand layers were encountered at the subject site. Therefore, it is the opinion of Byer Geotechnical that the potential for creating perched groundwater conditions is considered to be very low.

Expansive Soil

The onsite soils have a very low expansion potential.

Hydroconsolidation

The results of dry density and consolidation tests indicate that the subsurface earth materials are medium dense to very dense. Consolidation tests indicate a minor potential for hydroconsolidation, which does not require mitigation.

GENERAL SEISMIC CONSIDERATIONS

Regional Faulting

The subject property is located in an active seismic region. Moderate to strong earthquakes can occur on numerous local faults. The United States Geological Survey, California Geological Survey (CGS), private consultants, and universities have been studying earthquakes in southern California for several decades. Early studies were directed toward earthquake prediction and estimation of the effects of strong ground shaking. Studies indicate that earthquake prediction is not practical and not sufficiently accurate to benefit the general public. Governmental agencies now require earthquake-resistant structures. The purpose of the code seismic-design parameters is to prevent collapse during strong ground shaking. Cosmetic damage should be expected.

Southern California faults are classified as "active" or "potentially active." Faults from past geologic periods of mountain building that do not display evidence of recent offset are considered "potentially active." Faults that have historically produced earthquakes or show evidence of movement within the past 11,000 years are known as "active faults." No known active faults cross the subject property, and the property is not located within a currently-designated Alquist-Priolo Earthquake Fault Zone (CGS, 2000). Therefore, the potential for future surface rupture is considered nil.

The known regional local active and potentially-active faults that could produce the most significant ground shaking on the site include the Verdugo, Sierra Madre (San Fernando), Santa Monica, and Northridge Faults. Fifty faults were found within a 100-kilometer-radius search area from the site

using EZ-FRISK V7.65 computer program. The results of seismic-source analysis are listed in Appendix III. The closest mapped "active" fault is the Verdugo Fault, a Type B fault that is located 1.9 kilometers (1.2 miles) east of the site. The Verdugo Fault is capable of producing a maximum moment magnitude of 6.9 and an average slip rate of 0.5 ± 0.5 millimeters per year (Cao et al., 2003). The San Andreas Fault, a Type A fault, is located 44.4 kilometers (27.6 miles) northeast of the site. General locations of regional active faults with respect to the subject site are shown on the enclosed Regional Fault Map (Appendix III).

Seismic Design Coefficients

The following table lists the applicable City of Los Angeles Building Code seismic coefficients for the project:

SEISMIC COEFFICIENTS (2020 City of Los Angeles Building Code - Based on ASCE Standard 7-16)		
Latitude = 34.2149° N Longitude = 118.3868° W	Short Period (0.2s)	One-Second Period
Earth Materials and Site Class from Table 20.3.3, ASCE Standard 7-16	Alluvium - D	
Mapped Spectral Accelerations from Figures 22-1 and 22-2 and USGS	S_s = 2.003 (g)	S_1 = 0.685 (g)
Site Coefficients from Tables 11.4-1 and 11.4-2 and USGS	F_A = 1.0	F_V = 1.7 (g)
Maximum Considered Spectral Response Accelerations from Equations 11.4-1 and 11.4-2	S_{MS} = 2.003 (g)	S_{M1} = 1.165 (g)
Design Spectral Response Accelerations from Equations 11.4-3 and 11.4-4	S_{DS} = 1.335 (g)	S_{D1} = 0.776 (g)
Maximum Considered Earthquake Geometric Mean (MCE_G) Peak Ground Acceleration, adjusted for Site Class effects	PGA_M = 0.903 (g)	

Reference: U.S. Geological Survey, **Geologic Hazards Science Center, U. S. Seismic Design Maps,** http://earthquake.usgs.gov/designmaps/us/application.php

The mapped spectral response acceleration parameter for the site for a 1-second period (S_1) is less than 0.75g. The design spectral response acceleration parameters for the site for a 1-second period (S_{D1}) is greater than 0.20g, and the short period (S_{DS}) is greater than 0.50g. Therefore, the project is considered to be in Seismic Design Category D.

The principal seismic hazard to the proposed project is strong ground shaking from earthquakes produced by local faults. Modern buildings are designed to resist ground shaking through the use of shear panels, moment frames, and reinforcement. Additional precautions may be taken, including strapping water heaters and securing furniture to walls and floors. It is likely that the subject property will be shaken by future earthquakes produced in southern California.

Seismic Hazard Deaggregation Analysis

Probabilistic seismic hazard deaggregation analysis was performed on the subject site. Seismic parameters were determined using currently-available earthquake and fault information utilizing data from the United States Geological Survey (USGS) National Seismic Hazard Mapping Project (USGS, 2008). An average shear-wave velocity (Vs30) of 259 meters-per-second (Site Class D) was used in the analysis. Hazard deaggregation indicates a predominant modal earthquake magnitude of 6.3 (Mw) at a modal distance of 10 kilometers. The Peak Horizontal Ground Acceleration (PHGA) with a 10-percent probability of exceedance in 50 years is estimated to be 0.55g on the subject site. These ground motions could occur at the site during the life of the project. Results of the analysis are graphically presented in the enclosed "Seismic Hazard Deaggregation Chart" (Appendix III).

Based on a Site Class D, the MCE_G peak ground acceleration adjusted for Site Class effects, PGA_M, is 0.903g. The pseudo-static seismic coefficient (k_h) was derived according to the guidelines of the LADBS memorandum dated July 16, 2014. The horizontal pseudo-static seismic coefficient (k_h) was taken as one-third of the PGA_M (0.30g) and was used in the seismic calculations for the cantilever and restrained subterranean retaining walls.

Site-Specific Ground Motion Analysis

Site-specific ground motion analysis was performed in accordance with Chapter 21 of the American Society of Civil Engineers (ASCE) Standard 7-16. The probabilistic and deterministic seismic response spectra, based on maximum rotated component of spectral response at five-percent damping, are enclosed. The analysis is also based on a probability of exceedance of two percent in 50 years (2,475-return period). A computerized program, EZ-FRISK V7.65, was used to generate the seismic response spectra. An averaging of three Next Generation Attenuation relations (Chiou-Youngs 2007 NGA USGS 2008 MRC; Boore-Atkinson 2008 NGA USGS 2008 MRC; and Campbell-Bozorgnia 2008 NGA USGS 2008 MRC) was incorporated in both the probabilistic and deterministic analyses to estimate ground motions at the subject site. The deterministic response spectrum was generated using the 84th percentile of the maximum rotated component of spectral response at five-percent damping. A shear-wave velocity (Vs30) of 259 meters-per-second (Site Class D) was used in the analysis.

The design response spectrum was generated by multiplying the lesser of the deterministic and probabilistic response spectra by two-thirds, according to Sections 21.2.3 and 21.3 of ASCE Standard 7-16. The deterministic lower-limit response spectrum was determined according to Section 21.2.2 of the ASCE Standard 7-16. Spectral response accelerations for selected periods are shown in the following table:

Spectral Response Accelerations (g)*									
Seismic Response Spectra	Fundamental Period (seconds)								
	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
Probabilistic MCE_R	1.9200	1.9363	1.8660	1.7823	1.6389	1.5314	1.4205	1.3099	1.2204
Probabilistic (ASCE 7-16)	1.3353	1.3353	1.3353	1.3353	1.3353	1.3353	1.3353	1.2685	1.1417
Deterministic MCE_R (84^{th} Percentile)	1.2600	1.3430	1.3860	1.3820	1.3000	1.2320	1.1500	1.064	0.9943
Deterministic Lower Limit on MCE_R Response Spectrum	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000
Site Specific MCE_R	1.5000	1.5000	1.5000	1.5000	1.5000	1.5000	1.4200	1.3100	1.2200
80% Design Response Spectrum	1.0680	1.0680	1.0680	1.0680	1.0680	1.0680	1.0680	1.0150	0.9130
Site-Specific Design Response Spectrum	**1.0680**	**1.0680**	**1.0680**	**1.0680**	**1.0680**	**1.0680**	**1.0680**	**1.0150**	**0.9130**

* Reference: *American Society of Civil Engineers (ASCE), Minimum Design Loads and Associated Criteria for Buildings and Other Structures, Standard 7-16, 2016.*

The data included in the table above are plotted and presented in the enclosed Site-Specific Seismic Response Spectra figure (see Appendix III). Detailed calculations for fundamental periods up to eight seconds are also included in the "Site-Specific Ground Motion Analysis" table (see Appendix III).

As shown on the enclosed Site-Specific Seismic Response Spectra figure, the site-specific design response spectrum is equal or greater than or equal to 80 percent of the probabilistic response spectrum. According to Section 21.3 of ASCE Standard 7-16, the design response spectrum shall not be less than 80 percent of the probabilistic response spectrum.

Based on Section 21.4 of the ASCE Standard 7-16, the design earthquake spectral response acceleration parameters at short period, $S_{DS,}$ and at one-second period, S_{D1}, derived from the site-specific ground motion analysis, are shown in the following table:

SITE-SPECIFIC SPECTRAL RESPONSE ACCELERATION PARAMETERS (Based on ASCE Standard 7-16 - Chapter 21)		
Latitude = 34.2149° N Longitude = 118.3868° W	Short Period (0.2s)	One-Second Period
Maximum Considered Spectral Response Accelerations Chapter 21 - Section 21.4	S_{MS} = 1.602 (g)	S_{M1} = 1.370 (g)
Design Spectral Response Accelerations Chapter 21 - Section 21.4	S_{DS} = 1.068 (g)	S_{D1} = 0.913 (g)

Liquefaction

The CGS has not mapped the site within an area where historic occurrence of liquefaction or geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacement such that mitigation as defined in Public Resources Code Section 2693 (c) would be required, as shown on the enclosed Seismic Hazard Zones Map. The site is underlain by very dense alluvium deposits, and current and historic-high groundwater levels are not present onsite. Therefore, the earth materials underlying the subject site are not considered subject to liquefaction.

Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water, such as lakes and reservoirs, in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. The site is not located near any lake or reservoir. In addition, the site is not located within the flood hazard zone of Hansen Flood Control Basin, which is located approximately three miles north of the subject site. Furthermore, the site is at an average elevation of 805 feet above mean sea level. Therefore, the risk to the project from seiches or tsunamis is considered to be nil.

CONCLUSIONS AND RECOMMENDATIONS

General Findings

The conclusions and recommendations of this exploration are based upon review of the preliminary plans, review of published maps, four borings by Byer Geotechnical, five borings and three CPT soundings by Twining Consulting, research of available records, laboratory testing, engineering analysis, and years of experience performing similar studies on similar sites. It is the finding of Byer Geotechnical, Inc., that development of the proposed project is feasible from a geotechnical engineering standpoint, provided the advice and recommendations contained in this report are included in the plans and are implemented during construction.

The recommended bearing material for the proposed seven-story building over one subterranean parking level is undisturbed firm alluvium, which is anticipated at the basement level. The proposed two-story at-grade Recreation Building should be founded on a future compacted fill blanket. The subgrade for the proposed Blythe Street cul-de-sac should be prepared by removing any existing fill and replacing it as compacted fill. Conventional foundations may be used to support the proposed buildings. Soils to be exposed at finished grade are expected to exhibit a very low expansion potential.

Geotechnical issues affecting the project include temporary excavations ranging from 5 to 16 feet in height, including an estimate of the foundation embedment depth, which will be required to construct the subterranean parking level and during grading to create a compacted fill pad for the proposed at-grade building. Temporary shoring consisting of closely-spaced soldier piles and continuous lagging is recommended to facilitate the construction of the subterranean retaining walls abutting property lines as shown on Sections B, C, D, and E. Temporary excavations may be trimmed, where there is sufficient lateral distance from adjacent property lines, as shown on sections A and E. ABC slots are recommended along the east and south perimeters of the proposed at-grade

building during grading adjacent to property boundaries. Recommendations for temporary shoring and temporary trimming are included in the "Temporary Excavations" section of this report.

SITE PREPARATION - REMOVALS

Surficial materials consisting of existing fill and disturbed alluvium blanket the site. Remedial grading is recommended to improve site conditions for the recreation building. The existing fill and disturbed alluvium should be removed to a minimum of three feet below the bottom of the footings of the proposed at-grade building and replaced as certified compacted fill. The following general grading specifications may be used in preparation of the grading plan and job specifications. Byer Geotechnical would appreciate the opportunity of reviewing the plans to ensure that these recommendations are included. The grading contractor should be provided with a copy of this report.

A. The area of the proposed at-grade building should be prepared by removing all vegetation, demolition debris, existing fill, and disturbed alluvium. The exposed excavated area should be observed by the soils engineer prior to placing compacted fill. Removal depths can be found in the "Site Preparation - Removals" section above. The exposed grade should be scarified to a depth of six inches, moistened to optimum moisture content, and recompacted to 95 percent of the maximum dry density.

B. The proposed at-grade building site shall be excavated to a minimum depth of three feet below the bottom of all footings. The excavation shall extend beyond the edge of the exterior footing a minimum of three feet or to the depth of fill below the footing. The excavated areas shall be observed by the soils engineer prior to placing compacted fill.

C. Fill, consisting of soil approved by the soils engineer, shall be placed in horizontal lifts, moistened as required, and compacted in six-inch layers with suitable compaction equipment. The excavated onsite materials are considered satisfactory for reuse in the controlled fills. Any imported fill shall be observed by the soils engineer prior to use in fill areas. Rocks larger than six inches in diameter shall not be used in the fill.

D. The moisture content of the fill should be near optimum moisture content. When the moisture content of the fill is too wet or dry of optimum, the fill shall be moisture conditioned and mixed until the proper moisture is attained.

E. The fill shall be compacted to at least 95 percent of the maximum laboratory dry density for the material used. The maximum dry density shall be determined by ASTM D 1557-12 or equivalent.

F. Field observation and testing shall be performed by the soils engineer during grading to assist the contractor in obtaining the required degree of compaction and the proper moisture content. Where compaction is less than required, additional compactive effort shall be made with adjustment of the moisture content, as necessary, until 95 percent relative compaction is obtained. A minimum of one compaction test is required for each 500 cubic yards or two vertical feet of fill placed.

FOUNDATION DESIGN

Spread Footings

Continuous and/or pad footings may be used to support the proposed buildings, provided they are founded in firm alluvium (seven-story building over a subterranean garage) and future compacted fill (Recreation Building). Continuous footings should be a minimum of 12 inches in width. Pad footings should be a minimum of 24-inches square. The following chart contains the recommended design parameters.

Bearing Material	Minimum Embedment Depth of Footing (Inches)	Vertical Bearing (psf)	Coefficient of Friction	Passive Earth Pressure (pcf)	Maximum Earth Pressure (psf)
Future Compacted Fill (At-Grade Building)	24	2,000	0.38	220	4,000
Alluvium (7-Story Building)	24	3,000	0.38	220	6,000

Increases in the bearing value are allowable at a rate of 20 percent for each additional foot of footing width or depth to the maximum bearing values listed in the table above. For bearing calculations, the weight of the concrete in the footing may be neglected.

The bearing values shown above are for the total of dead and frequently applied live loads and may be increased by one-third for short duration loading, which includes the effects of wind or seismic forces. When combining passive and friction for lateral resistance, the passive component should be reduced by one-third.

All continuous footings should be reinforced with a minimum of four #4 steel bars: two placed near the top and two near the bottom of the footings. Footings should be cleaned of all loose soil, moistened, free of shrinkage cracks, and approved by the geotechnical engineer prior to placing forms, steel, or concrete.

Foundation Settlement

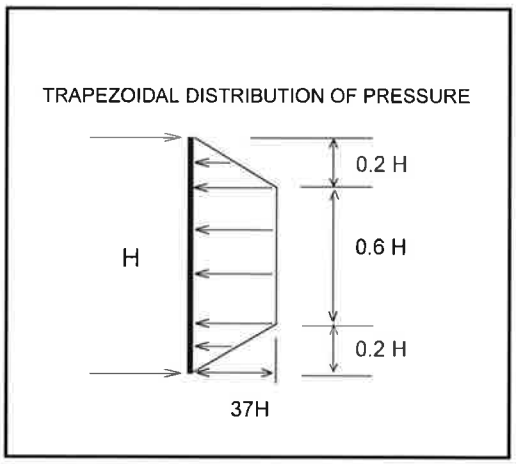
Settlement of the foundation system is expected to occur on initial application of loading. A total static settlement of 0.25 to 0.75 inches may be anticipated. Differential settlement should not exceed 0.5 inches within a horizontal distance of 30 feet.

RETAINING WALLS

General Design

Cantilever retaining walls up to 14 feet high, with a level backslope and uniform vehicular surcharge up to 300 pounds, may be designed for an active equivalent fluid pressure of 43 pounds-per-cubic-foot (see Calculation Sheet #2a). Retaining walls should be provided with a subdrain or weepholes covered with a minimum of 12 inches of ¾-inch crushed gravel.

Subterranean retaining walls, which will be restrained, should be designed for the at-rest lateral earth pressure of 37H, where H is the height of the wall. The diagram illustrates the trapezoidal distribution of earth pressure. The design earth pressures assume that the walls are free draining. Surcharge loads from vehicular traffic and adjacent buildings should be added to the at-rest pressure for restrained retaining walls. Surcharge loads may be calculated using NAVFAC DM-7.02 Design Manual, LADBS Information Bulletin P/BC 2020-083, or an equivalent method.



Seismic analysis of the proposed cantilever retaining walls indicates an additional 362 pounds of loading due to seismic forces is required, since the calculated seismic thrust is more than the design active thrust for a restrained height up to 14 feet (see Calculation Sheet #2Sa). The seismic load should be applied at a height of 0.3H measured from the base of the wall. Seismic analysis also indicates that no additional loading due to seismic forces is required on restrained retaining walls since the calculated seismic thrusts are less than the design at-rest thrusts for retained heights of up to 14 feet high (see Calculation Sheets #3Sa and #4Sa).

Subterranean retaining walls should be provided with a subdrain covered with a minimum of 12 inches of ¾-inch crushed gravel. An alternative subdrain system consisting of Miradrain and gravel pockets connected to a solid pipe outlet may be used behind the subterranean retaining walls. The gravel pockets should be placed at the bottom of the retaining wall, midway between the shoring bays. A sump pump will be required for basement subdrains. The gravel pockets should be excavated to penetrate the slurry backfill behind the lagging to ensure contact with the earth materials behind the lagging.

Backfill

Retaining wall backfill should be compacted to a minimum of 95 percent of the maximum dry density as determined by ASTM D 1557-12, or equivalent. Where access between the retaining wall and the temporary excavation prevents the use of compaction equipment, retaining walls should be backfilled with ¾-inch crushed gravel to within two feet of the ground surface. Where the area between the wall and the excavation exceeds 18 inches, the gravel must be vibrated or wheel-rolled, and tested for compaction. The upper two feet of backfill above the gravel should consist of a compacted-fill blanket to the surface. Restrained walls should not be backfilled until the restraining system is in place.

Foundation Design

Retaining wall footings may be sized per the "Spread Footings" section of this report.

Retaining Wall Deflection

It should be noted that non-restrained retaining walls can deflect up to one percent of their height in response to loading. This deflection is normal and results in lateral movement and settlement of the backfill toward the wall. The zone of influence is within a 1:1 plane from the bottom of the wall. Hard surfaces or footings placed on the retaining wall backfill should be designed to avoid the effects of differential settlement from this movement. Decking that caps a retaining wall should be provided with a flexible joint to allow for the normal deflection of the retaining wall. Decking that does not cap a retaining wall should not be tied to the wall. The space between the wall and the deck will require periodic caulking to prevent moisture intrusion into the retaining wall backfill.

TEMPORARY EXCAVATIONS

Temporary excavations will be required to construct the subterranean parking level of the proposed seven-story building and to prepare a compacted fill pad for the proposed at-grade building. The excavations will range from 5 to 16 feet in height, including an estimate of the foundation embedment depth, and will expose minor fill over alluvium. The fill should be trimmed to 1:1 for wall excavations. The alluvium is capable of maintaining vertical excavations up to five feet with level backslope (see Calculation Sheet #8) and up to four feet with a 1:1 backslope (see Calculation Sheet #9).

Vertical excavations removing support from adjacent foundations or property lines will require the use of temporary shoring or slot cutting (ABC method). Closely-spaced soldier piles with wood lagging is recommended to be used as temporary shoring. Design values can be found in the "Soldier Piles" section below. Temporary excavations may consist of a combination of a maximum four-foot vertical and a 1:1 back cut where space permits, as shown on Sections A and E.

The slot cutting method uses the earth as a buttress and allows the excavation to proceed in phases. The initial excavation is made at a slope of 1:1. Alternate slots of eight feet in width may be worked (see Calculation Sheet #10). The remaining earth buttresses should be 16 feet in width. The "A" earth buttresses should be completed and backfilled before the "B" earth buttresses are excavated. The "C" earth buttresses may be excavated upon completion of the backfilling and compaction of the "B" areas.

The geologist should be present during grading to see temporary slopes. All excavations should be stabilized within 30 days of initial excavation. Water should not be allowed to pond on top of the excavations nor to flow toward them. No vehicular surcharge should be allowed within three feet of the top of the cut.

Soldier Piles

Drilled, cast-in-place concrete soldier piles are recommended as temporary shoring to support excavations to construct the subterranean parking level of the proposed seven-story building and to support offsite improvements. The piles should be a minimum of 18 inches in diameter and a minimum of eight feet into the alluvium below the excavation. Piles may be assumed fixed at three feet into the alluvium below the excavation. The piles may be designed for a skin friction of 500 pounds-per-square-foot for that portion of pile in contact with the alluvium below the excavation. Piles should be spaced a maximum of eight feet on center. Shoring spacing may be increased up to 10 feet on center in local areas such as ramp approaches and corners of shoring. The piles may be designed for the lateral pressures shown in the following table:

Shoring Height (feet)	Type of Surcharge	Maximum Surcharge (pounds)	Active Equivalent Fluid Pressure (pcf)	Trapezoidal Pressure	Reference
16	No Surcharge	-	30	19H	Calculation Sheet #5a
16	Vehicle	300 Uniform Load	32	20H	Calculation Sheet #6a
16	Building	1,200 Line Load	33	21H	Calculation Sheet #7a

If rakers are incorporated in the temporary shoring system, the soldier piles should be designed for the trapezoidal pressures shown on the table above, where H is the shored height.

The equivalent fluid pressure should be multiplied by the pile spacing. The piles may be included in the permanent retaining wall. Where a combination of sloped embankment and shoring is used, the pressure will be greater and must be determined for each combination.

Groundwater is not anticipated in the soldier pile excavations.

Lateral Design

The friction value is for the total of dead and frequently applied live loads and may be increased by one-third for short duration loading, which includes the effects of wind or seismic forces. Resistance to lateral loading may be provided by passive earth pressure within the alluvium below the excavation.

Passive earth pressure may be computed as an equivalent fluid having a density of 220 pounds-per-cubic-foot. The maximum allowable earth pressure is 6,000 pounds-per-square-foot. For design of isolated piles, the allowable passive and maximum earth pressures may be increased by 100 percent. Piles spaced more than 3-pile diameters on center may be considered isolated.

Lagging

Continuous lagging is recommended between the soldier piles. The soldier piles should be designed for the full anticipated lateral pressure. However, the pressure on the lagging will be less due to arching in the soils. Lagging should be designed for the recommended earth pressure, but may be limited to a maximum value of 400 pounds-per-square-foot. The space behind lagging should be backfilled with cement slurry.

Lagging should be placed behind the front flange of the shoring steel I-beams. In some cases, the shoring is designed with the lagging behind the rear flange of the shoring steel I-beams. This is to maximize the interior area and position the walls as near the property lines as possible. During the installation of lagging behind the rear flange, the shoring is not supporting the excavation while the lagging is placed and backfilled. This can cause damage to adjacent offsite improvements, such as buildings, site walls, sidewalks, etc. If lagging is to be placed behind the rear flange of the I-beams, the lagging should be installed in slot cuts (ABC method), where lagging is installed and slurry-

backfilled in the "A" slots before the "B" and "C" slots are excavated for lagging. Also, the maximum vertical height exposed should be no more than five feet.

Deflection

Some deflection of the shored embankment should be anticipated. Where shoring is planned adjacent to existing structures, it is recommended that lateral deflection not exceed one-half of an inch. For shoring not surcharged by a structure, the allowable deflection is deferred to the structural engineer. If greater deflection occurs during construction, additional bracing or anchors may be necessary to minimize deflection. If desired to reduce the deflection of the shoring, a greater active pressure could be used in the shoring design.

FLOOR SLABS

Floor slabs should be cast over firm alluvium (Subterranean Level) or approved compacted fill (At-Grade Building) and reinforced with a minimum of #4 bars on 16-inch centers, each way. Slabs that will be provided with a floor covering should be protected by a polyethylene plastic vapor barrier. The barrier should be sandwiched between the layers of sand, about two inches each, to prevent punctures and aid in the concrete cure. A low-slump concrete may be used to minimize possible curling of the slab. The concrete should be allowed to cure properly before placing vinyl or other moisture-sensitive floor covering.

It should be noted that cracking of concrete slabs is common. The cracking occurs because concrete shrinks as it cures. Control joints, which are commonly used in exterior decking to control such cracking, are normally not used in interior slabs. The reinforcement recommended above is intended to reduce cracking and its proper placement is critical to the performance of the slab. The minor shrinkage cracks, which often form in interior slabs, generally do not present a problem when carpeting, linoleum, or wood floor coverings are used. The slab cracks can, however, lead to surface cracks in brittle floor coverings such as ceramic tile.

EXTERIOR CONCRETE DECKS

Decking should be cast over approved compacted fill placed in accordance with the "Site Preparation - Removals" section of this report. Decking should be reinforced with a minimum of #3 bars placed 18 inches on center, each way. Decking that caps a retaining wall should be provided with a flexible joint to allow for the normal one to two percent deflection of the retaining wall. Decking that does not cap a retaining wall should not be tied to the wall. The space between the wall and the deck will require periodic caulking to prevent moisture intrusion into the retaining wall backfill. The subgrade should be moistened prior to placing concrete.

PAVING

Prior to placing paving in the proposed road cul-de-sac, any existing fill (estimated at 3 feet thick), should be removed and replaced as future compacted fill with a minimum relative compaction of 95 percent. Prior to placing fill, the removal bottom should be observed and scarified, moistened as required to obtain optimum moisture content, and recompacted to 95 percent of the maximum dry density, as determined by ASTM D 1557-12. Trench backfill below paving should be compacted to 95 percent of the maximum dry density. Irrigation water should be prevented from migrating under paving.

A representative bulk sample of the near-surface soils was obtained from Boring B1 for laboratory testing to determine the Expansion Index (see Appendix II). The results indicate an Expansion Index (EI) value of 7. Based on a correlation with the EI values, a preliminary R-value of 60 is considered appropriate for design of flexible pavement at the subject site. Based on the Caltrans Design Procedures (Cal Test 301), flexible pavement sections may consist of the following for the Traffic Indices (TI) indicated.

Traffic Index (TI)	Full-Depth Asphalt Thickness (No Base) (Inches)	Asphalt Concrete (AC) Pavement Thickness (Inches)	Class II Aggregate Base Thickness (Inches)
5	3.5	3.0	4.0
6	5.0	3.5	4.0
7	5.5	4.0	4.0
8	6.5	5.0	4.0
9	7.0	5.5	4.0

For rigid concrete pavement, four inches of concrete over six inches of aggregate base can be used. Concrete should be reinforced for heavy load application.

The Class II aggregate base and top one foot of subgrade should be compacted to a minimum of 95 percent of maximum dry density. Crushed aggregate base should meet the requirements of "Greenbook" (Standard Specification for Public Works Construction) Section 200-2.2.

UTILITY-TRENCH BACKFILL

Utility trenches on the subject site may be backfilled with the onsite soil, provided it is free of debris and oversize material. Prior to backfilling the trench, pipes should be bedded and shaded in a granular material that has a sand equivalent (SE) of 30 or greater. The sand should extend 12 inches above the top of the pipe. The bedding/shading sand should be densified in-place by water jetting. Soil backfill above the bedding sand should be placed in thin, loose layers, moistened as required, and compacted to at least 95 percent of the maximum dry density. The thickness of layers should be based on the type of equipment used for compaction in accordance with the recent edition of Standard Specifications for Public Works Construction (Greenbook).

CEMENT TYPE AND CORROSION PROTECTION

A bulk representative sample of the near-surface soil was obtained from Boring B1 for laboratory testing. Corrosion test results are included in Appendix II. The results indicate that concrete structures in contact with the soils onsite will have negligible exposure to water-soluble sulfates in the soil. According to Table 4.3.1 of Section 4.2 of the ACI 318 Code, Type II cement may be used for concrete construction.

The results of the laboratory testing also indicate that the near-surface soil is considered mildly corrosive to ferrous metals. The corrosion information presented in Appendix II of this report should be provided to the underground utility subcontractor.

DRAINAGE

Control of site drainage is important for the performance of the proposed project. Pad and roof drainage should be collected and transferred to the street or approved location in non-erosive drainage devices. Drainage should not be allowed to pond on the pad or against any foundation or retaining wall. Planters located within retaining wall backfill should be sealed to prevent moisture intrusion into the backfill. Planters located next to raised-floor-type construction also should be sealed to the depth of the footings. Drainage control devices require periodic cleaning, testing, and maintenance to remain effective.

Low-Impact Development (LID) Requirements

It is our understanding that the project is planned to utilize a drywell infiltration system. The coarse granular nature of the earth materials underlying the subject site is considered suitable for an infiltration rate of 10.5 inches-per-hour (7.4×10^{-3} centimeters-per-second) for design of the proposed drywell infiltration system. Infiltration systems are normally planned at least 10 feet from

adjacent property lines or public right-of-way and 10 feet from a 1:1 plane projected from the bottom of adjacent structural foundations.

The following recommendations shall be incorporated into the design and construction of a drywell infiltration system:

- The infiltration system should be located within the landscaping (SE portion) area of the site. The system should not be installed below the footprint of the proposed buildings.

- The upper 10 feet (minimum) of the shaft should be sealed with a pre-cast concrete liner, or equivalent, to avoid any lateral water infiltration. The annular space behind the liner should be backfilled with cement slurry.

- The horizontal distance between the edge of the infiltration system and any adjacent property line should be at least 10 feet.

- The horizontal distance between the edge of the infiltration system and any adjacent structural foundations should be a minimum of 10 feet. In addition, the bottom of the footing should be a minimum of 10 feet from the design zone of saturation.

- The infiltration system shall be designed to overflow to the street in case the drainage capacity is exceeded.

- The excavated shaft should be observed by the soils engineer to verify natural alluvium is exposed prior to construction of the infiltration system.

Byer Geotechnical should be provided with the design plans to verify the location of the infiltration system and to provide additional recommendations, if necessary, depending on the type of the infiltration system to be installed.

WATERPROOFING

Interior and exterior retaining walls are subject to moisture intrusion, seepage, and leakage, and should be waterproofed. Waterproofing paints, compounds, or sheeting can be effective if properly installed. Equally important is the use of a subdrain that daylights to the atmosphere. The subdrain should be covered with ¾-inch crushed gravel to help the collection of water. Landscape areas above the wall should be sealed or properly drained to prevent moisture contact with the wall or saturation of wall backfill.

PLAN REVIEW

Formal plans ready for submittal to the building department should be reviewed by Byer Geotechnical. Any change in scope of the project may require additional work.

SITE OBSERVATIONS DURING CONSTRUCTION

The building department requires that the geotechnical engineer provide site observations during grading and construction. Foundation excavations should be observed and approved by the geotechnical engineer or geologist prior to placing steel, forms, or concrete. The engineer should observe bottoms for fill, compaction of fill, temporary excavations, soldier pile excavations, lagging and slurry backfill, and subdrains. All fill that is placed should be approved by the geotechnical engineer and the building department prior to use for support of structural footings and floor slabs.

Please advise Byer Geotechnical, Inc., at least 24 hours prior to any required site visit. The building department stamped plans, the permits, and the geotechnical reports should be at the job site and available to our representative. The project consultant will perform the observation and post a notice at the job site with the findings. This notice should be given to the agency inspector.

FINAL REPORTS

The geotechnical engineer will prepare interim and final compaction reports upon request. The engineer can also prepare a report summarizing soldier pile excavations, if requested.

CONSTRUCTION SITE MAINTENANCE

It is the responsibility of the contractor to maintain a safe construction site. The area should be fenced and warning signs posted. All excavations must be covered and secured. Soil generated by foundation excavations should be either removed from the site or placed as compacted fill. Workers should not be allowed to enter any unshored trench excavations over five feet deep. Water shall not be allowed to saturate open footing trenches.

GENERAL CONDITIONS AND NOTICE

This report and the exploration are subject to the following conditions. Please read this section carefully; it limits our liability.

In the event of any changes in the design or location of any structure, as outlined in this report, the conclusions and recommendations contained herein may not be considered valid unless the changes are reviewed by Byer Geotechnical, Inc., and the conclusions and recommendations are modified or reaffirmed after such review.

The subsurface conditions, excavation characteristics, and geologic structure described herein have been projected from test excavations on the site and may not reflect any variations that occur between these test excavations or that may result from changes in subsurface conditions.

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, irrigation, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can be extremely hazardous. Saturation of earth materials can cause subsidence or slippage of the site.

If conditions encountered during construction appear to differ from those disclosed herein, notify us immediately so we may consider the need for modifications. Compliance with the design concepts, specifications, and recommendations requires the review of the engineering geologist and geotechnical engineer during the course of construction.

THE EXPLORATION WAS PERFORMED ONLY ON A PORTION OF THE SITE, AND CANNOT BE CONSIDERED AS INDICATIVE OF THE PORTIONS OF THE SITE NOT EXPLORED.

This report, issued and made for the sole use and benefit of the client, is not transferable. Any liability in connection herewith shall not exceed the Phase I fee for the exploration and report or a negotiated fee per the Agreement. No warranty is expressed, implied, or intended in connection with the exploration performed or by the furnishing of this report.

THIS REPORT WAS PREPARED ON THE BASIS OF THE PRELIMINARY DEVELOPMENT PLAN FURNISHED. FINAL PLANS SHOULD BE REVIEWED BY THIS OFFICE AS ADDITIONAL GEOTECHNICAL WORK MAY BE REQUIRED.

Byer Geotechnical appreciates the opportunity to provide our service on this project. Any questions concerning the data or interpretation of this report should be directed to the undersigned.

Respectfully submitted,
BYER GEOTECHNICAL, INC.

Jose H. Perez
Staff Engineer

Raffi S. Babayan
P. E. 72168

Robert I. Zweigler
G. E. 2120

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ENCLOSURES AND DISTRIBUTION

Enc: List of References (2 Pages)
Appendix I - Twining Consulting, excerpts from report dated June 15, 2017
- Log of Borings TB1 - TB5 (9 Pages)
- CPT Sounding Charts 1 - 3 (6 Pages)
- Direct Shear Test Diagrams (3 Pages)
- Consolidation Test Curves (2 Pages)
- Percolation Testing Summary
- Exploration Location Map

Appendix II - Laboratory Testing and Log of Borings (Current Study)
- Laboratory Testing (2 Pages)
- Shear Test Diagrams (2 Pages)
- Consolidation Curves (7 Pages)
- Log of Borings BG1 - BG4 (7 Pages)

Appendix III - Calculations and Figures
- Seismic Sources (2 Pages)
- Seismic Hazard Deaggregation Chart
- Site-Specific Ground Motion Analysis (2 Pages)
- In-Situ Percolation Test Calculation Sheet #1
- Retaining Wall Calculation Sheets #2a-#4Sb (10 Pages)
- Shoring Pile Calculation Sheets #5a-#7b (6 Pages)
- Temporary Excavation Height Calculation Sheets #8 and #9 (2 Pages)
- Slot Cut Analysis Calculation Sheet #10
- Aerial Vicinity Map
- Regional Topographic Map
- Historic Topographic Map
- Regional Geologic Map #1 and #2 (2 Pages)
- Regional Fault Map
- Seismic Hazard Zones Map
- Historic-High Groundwater Map

In Pocket: Site Plan
Sections A through E (2 Sheets)

xc: (4) Addressee (E-mail and Mail)
(1) Lankershim Crossing, LLC, Attention: Liat Kozar (E-mail)

REFERENCES

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U.S. Geological Survey, **Geologic Hazards Science Center, U. S. Seismic Design Maps,** http://earthquake.usgs.gov/designmaps/us/application.php.

Software

EZ-FRISK 7.65, Risk Engineering, Inc.

March 30, 2020
BG 23185

APPENDIX I

Twining Consulting, excerpts from report dated June 15, 2017

DATE DRILLED	7/5/2016	LOGGED BY	DH	**BORING NO.**	**B-1**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	807 +(MSL)

(TB1)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
				9.6	106.5			SM	Asphalt Concrete: 4 inches FILL: Silty SAND, brown to gray-brown, dry to most, some gravel
						MAX, RDS		SP-SM	ALLUVIUM: Poorly graded SAND with silt, gray-brown, moist, medium dense, medium- to- coarse-grained sand, some gravel
802	5		16	2.0	104.8	CONSOL			-- dry, some gravel and cobble
797	10		20						
792	15		53	2.0	102.1				-- dense
									-- gravel layer encountered (18'-20')
787	20		25						-- medium dense
									-- gravel layer encountered (22'-23')
782	25		27	1.6	112.8				-- light brown, medium- to- coarse-grained sand, some gravel
777	30		31						-- dense
772	35								

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 2

DATE DRILLED	7/5/2016	LOGGED BY	DH	**BORING NO.**	**B-1**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	807 +(MSL)

(TB1)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
			41					SP-SM	ALLUVIUM: Poorly graded SAND with silt, gray-brown, moist, medium dense, medium- to- coarse-grained sand, some gravel *(continued)*
767	40		38						
762	45		44						-- same
757	50		47						
									Total Depth = 51.5 feet Backfilled on 7/5/2016 Borehole backfilled with soil from cuttings.
752	55								
747	60								
742	65								
737	70								

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 2

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

DATE DRILLED	7/5/2016	LOGGED BY	DH	**BORING NO.**	**B-2**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	806 +(MSL)

(TB2)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
								SM	Asphalt Concrete: 2 inches FILL: Silty SAND, brown to gray-brown, moist, medium dense, fine- to-medium-grained sand
801	5		13	1.7	107.6	#200		SP-SM	ALLUVIUM: Poorly graded SAND with silt, gray-brown, moist, medium dense, medium-to- coarse-grained sand, some gravel
796	10		27	1.5	90.2	DS			-- dry
791	15		32	1.2	109.1	#200			-- dense, gravel and cobble encountered
786	20		58	3.1	111.9				-- gravelly
781	25		29	2.9	112.0	#200			-- light gray-brown, medium dense
776	30		36						-- dense
771	35								

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 3

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

DATE DRILLED	7/5/2016	LOGGED BY	DH	**BORING NO.**	**B-2**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	806 +(MSL)

(TB2)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
			34			#200		SP-SM	ALLUVIUM: Poorly graded SAND with silt, gray-brown, moist, medium dense, medium-to- coarse-grained sand, some gravel *(continued)*
766	40		58						-- damp
761	45		37						
756	50		50/3"						-- very dense
									Total Depth = 50.8 feet Backfilled on 7/5/2016 Borehole backfilled with soil from cuttings.
751	55								
746	60								
741	65								
736	70								

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 3

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

DATE DRILLED	7/5/2016	LOGGED BY	DH	**BORING NO.**	**B-3**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	808 +(MSL)

(TB3)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
								SM	Asphalt Concrete: 2 inches FILL: Silty SAND, brown to light brown, dry to slightly moist, some gravel
								SP-SM	ALLUVIUM: Poorly graded SAND with silt, gray-brown, moist, medium dense
803	5		24	1.7	115.9	CORR			-- damp, gravel and cobble encountered
798	10		27						
793	15		30	2.0	110.0	DS			-- increase in gravel
788	20		39						-- dense -- less gravel
783	25		57	2.7	116.9				-- light gray-brown
778	30		33						-- medium dense
773	35								Total Depth = 31.5 feet Backfilled on 7/5/2016 Borehole backfilled with soil from cuttings.

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 4

DATE DRILLED	7/6/2016	LOGGED BY	DH	**BORING NO.**	**B-4**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	809 +(MSL)

(TB4)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
								SM	Asphalt Concrete: 2 inches FILL: Silty SAND with gravel, light brown/tan, dry, medium dense, fine- to- medium-grained sand
								SP-SM	ALLUVIUM: Poorly graded SAND, light brown/tan, dry, medium dense, medium-grained sand, some gravel
804	5		27	1.2	100.5				
799	10		21	2.5	116.7	CONSOL			-- dry, medium- to- coarse-grained sand
794	15		26	2.4	116.2				
789	20		43	3.3	110.2				-- damp, dense, gravel and cobble layer encountered (20-20.5')
784	25		29	2.7	114.6				-- increase in gravel, moist
779	30		67						-- very dense, gravelly
774	35								

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 5

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

DATE DRILLED	7/6/2016	LOGGED BY	DH	**BORING NO.**	**B-4**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	809 +(MSL)

(TB4)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
			44					SP-SM	ALLUVIUM: Poorly graded SAND, light brown/tan, dry, medium dense, medium-grained sand, some gravel *(continued)* -- dense
769	40		67						-- very dense
764	45		29						-- medium dense
759	50		87/9"						-- very dense
									Total Depth = 51.3 feet Backfilled on 7/6/2016 Borehole backfilled with soil from cuttings.
754	55								
749	60								
744	65								
739	70								

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 5

DATE DRILLED	7/6/2016	LOGGED BY	DH	**BORING NO.**	**B-5**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	808 ±(MSL)

(TB5)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
						RV		SM	Asphalt Concrete: 2 inches FILL: Silty SAND, dark brown to light brown, dry to moist, loose, fine-to- medium-grained, some gravel
								SP-SM	ALLUVIUM: Poorly graded SAND, light brown/tan, moist, medium dense, medium-to- coarse -grained sand, some gravel
803	5		17						
798	10		18	2.7	110.7				-- gravel and cobble encountered (12'-13')
793	15		41	2.3	110.2				-- damp, dense
788	20		18	2.5	111.3				-- medium dense, cobble encountered (20'-20.5')
783	25		25						-- increase in gravel, moist
778	30		34						
773	35								

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	A - 6

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

DATE DRILLED	7/6/2016	LOGGED BY	DH	**BORING NO.**	**B-5**
DRIVE WEIGHT	140 lbs.	DROP	30 inches	DEPTH TO GROUNDWATER (ft.)	NE
DRILLING METHOD	8" HSA	DRILLER	Gregg Drilling	SURFACE ELEVATION (ft.)	808 +(MSL)

(TB5)

ELEVATION (feet)	DEPTH (feet)	SAMPLES (Bulk / Driven)	BLOWS / FOOT	MOISTURE (%)	DRY DENSITY (pcf)	ADDITIONAL TESTS	GRAPHIC LOG	U.S.C.S. CLASSIFICATION	DESCRIPTION
			35					SP-SM	ALLUVIUM: Poorly graded SAND, light brown/tan, moist, medium dense, medium-to- coarse -grained sand, some gravel *(continued)* -- dense
768	40		32						-- medium-grained
763	45		32						
758	50		44						
									Total Depth = 51.5 feet Backfilled on 7/6/2016 Borehole backfilled with soil from cuttings.
753	55								
748	60								
743	65								
738	70								

TWINING

LOG OF BORING

Lankershim Square
North Hollywood, California

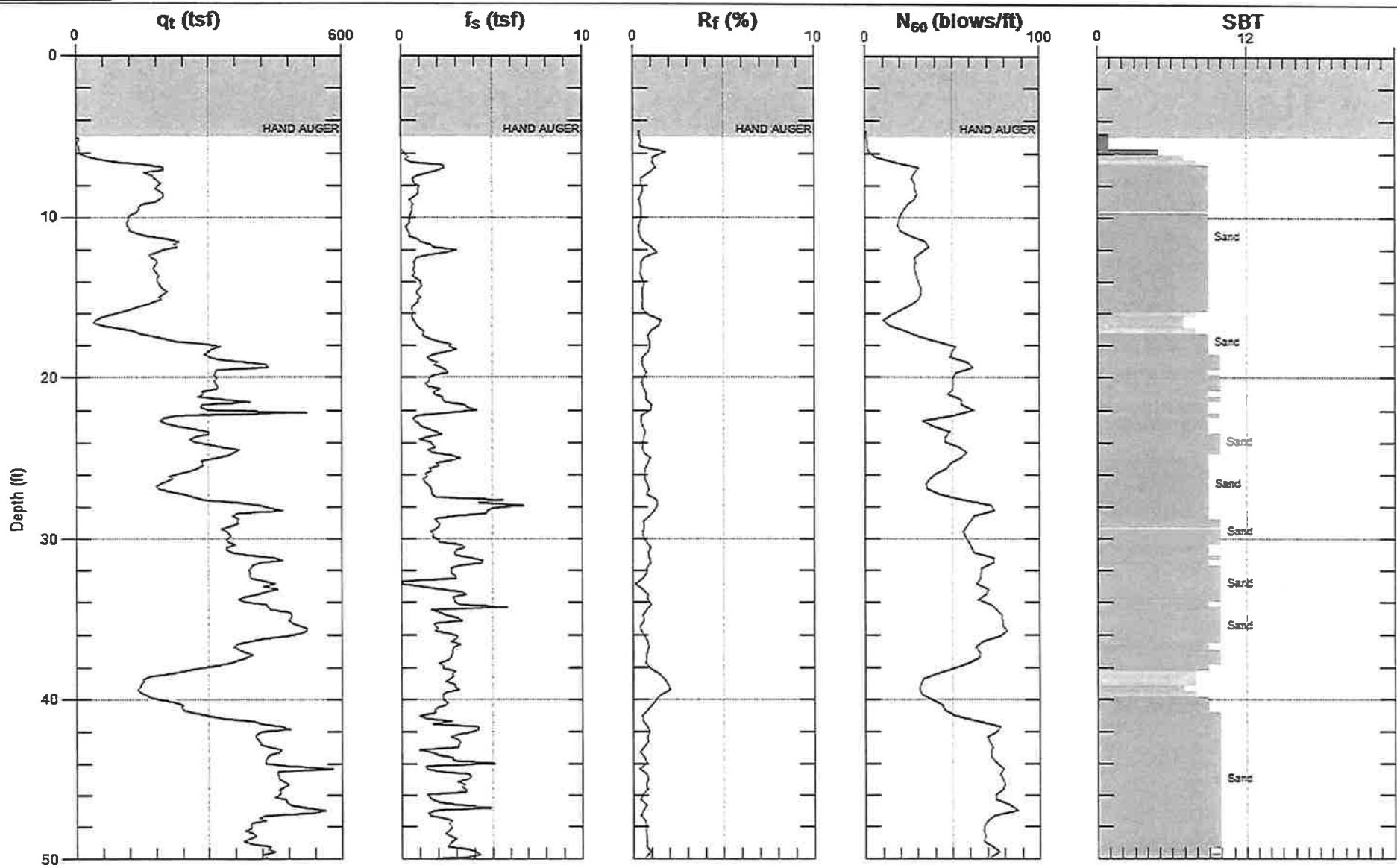
PROJECT NO.	REPORT DATE	
160511.1	August 2016	FIGURE A - 6

BORING LOG 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 8/12/16

TWINING CONSULTANTS

Site: NURSERY @7934 LANKERSHIM Engineer: S.LIN

Sounding: CPT-1 Date: 7/5/2016 08:28



Max. Depth: 50.197 (ft)
Avg. Interval: 0.328 (ft)

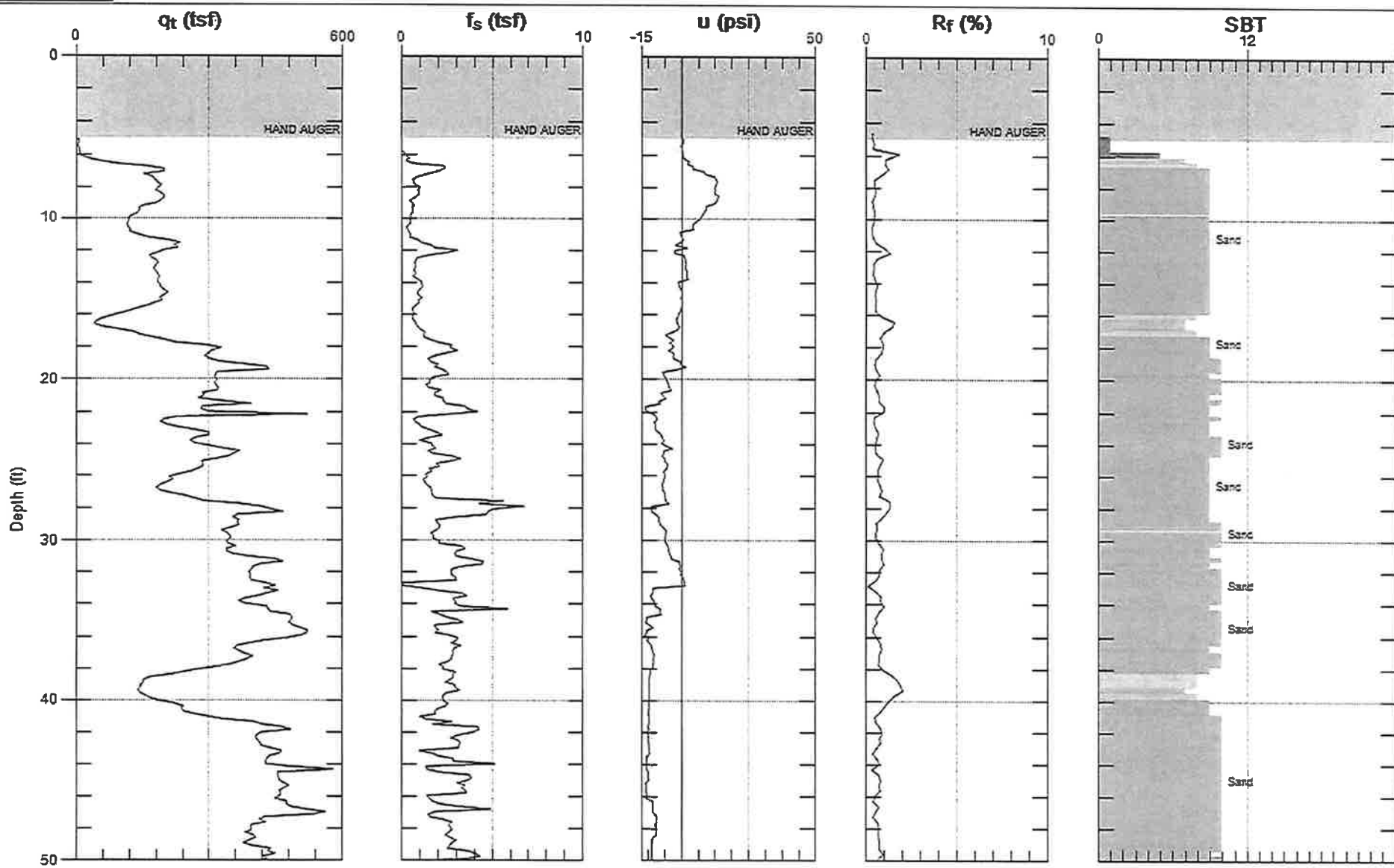
SBT: Soil Behavior Type (Robertson 1990)

GREGG

TWINING CONSULTANTS

Site: NURSERY @7934 LANKERSHIM Engineer: S.LIN

Sounding: CPT-1 Date: 7/5/2016 08:28



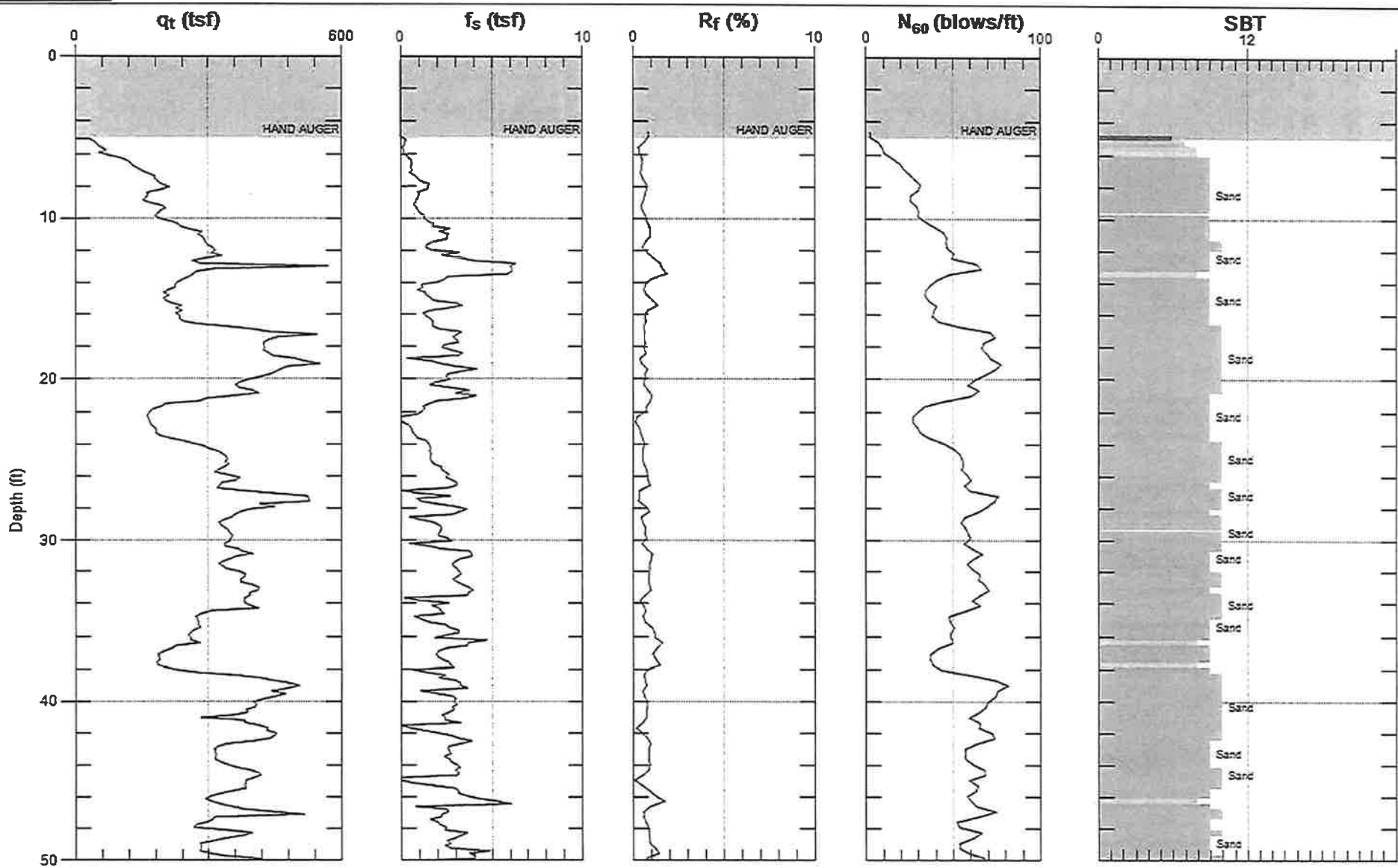
Max. Depth: 50.197 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

TWINING CONSULTANTS

Site: NURSERY @7934 LANKERSHIM Engineer: S.LIN

Sounding: CPT-2 Date: 7/5/2016 10:44



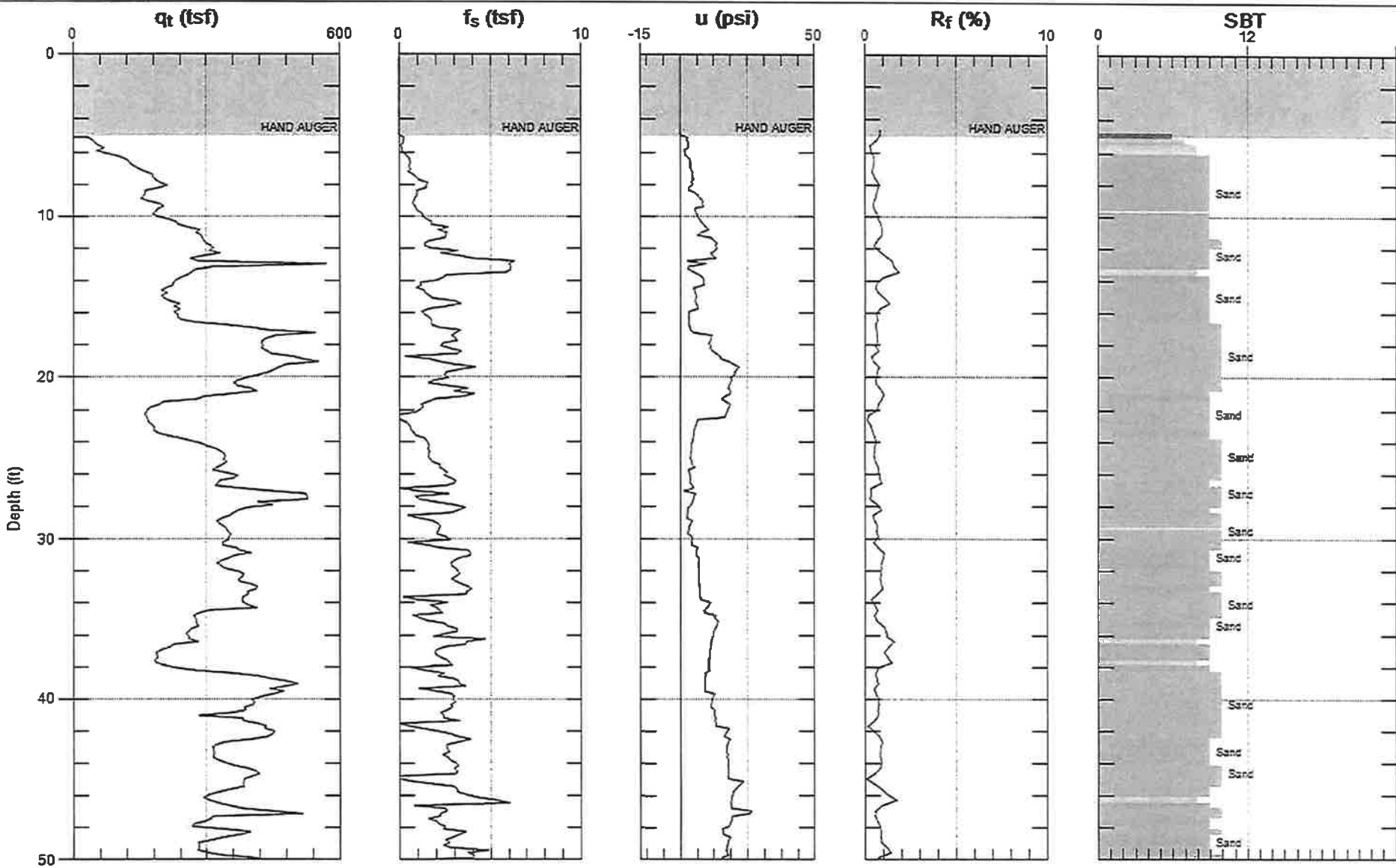
Max. Depth: 50.197 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

TWINING CONSULTANTS

Site: NURSERY @7934 LANKERSHIM Engineer: S.LIN

Sounding: CPT-2 Date: 7/5/2016 10:44



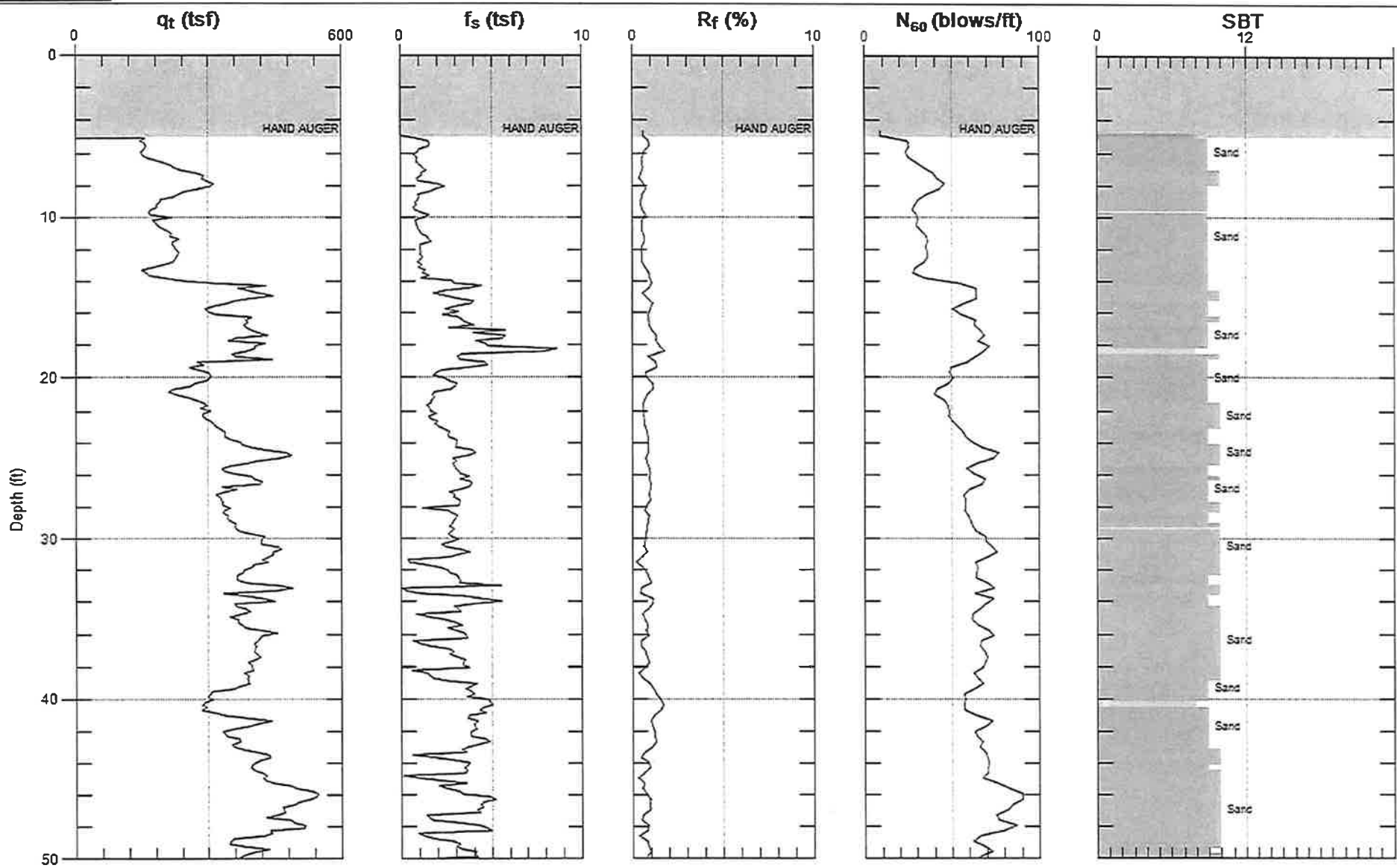
Max. Depth: 50.197 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

TWINING CONSULTANTS

Site: NURSERY @7934 LANKERSHIM Engineer: S.LIN

Sounding: CPT-3 Date: 7/5/2016 09:40



Max. Depth: 50.197 (ft)
Avg. Interval: 0.328 (ft)

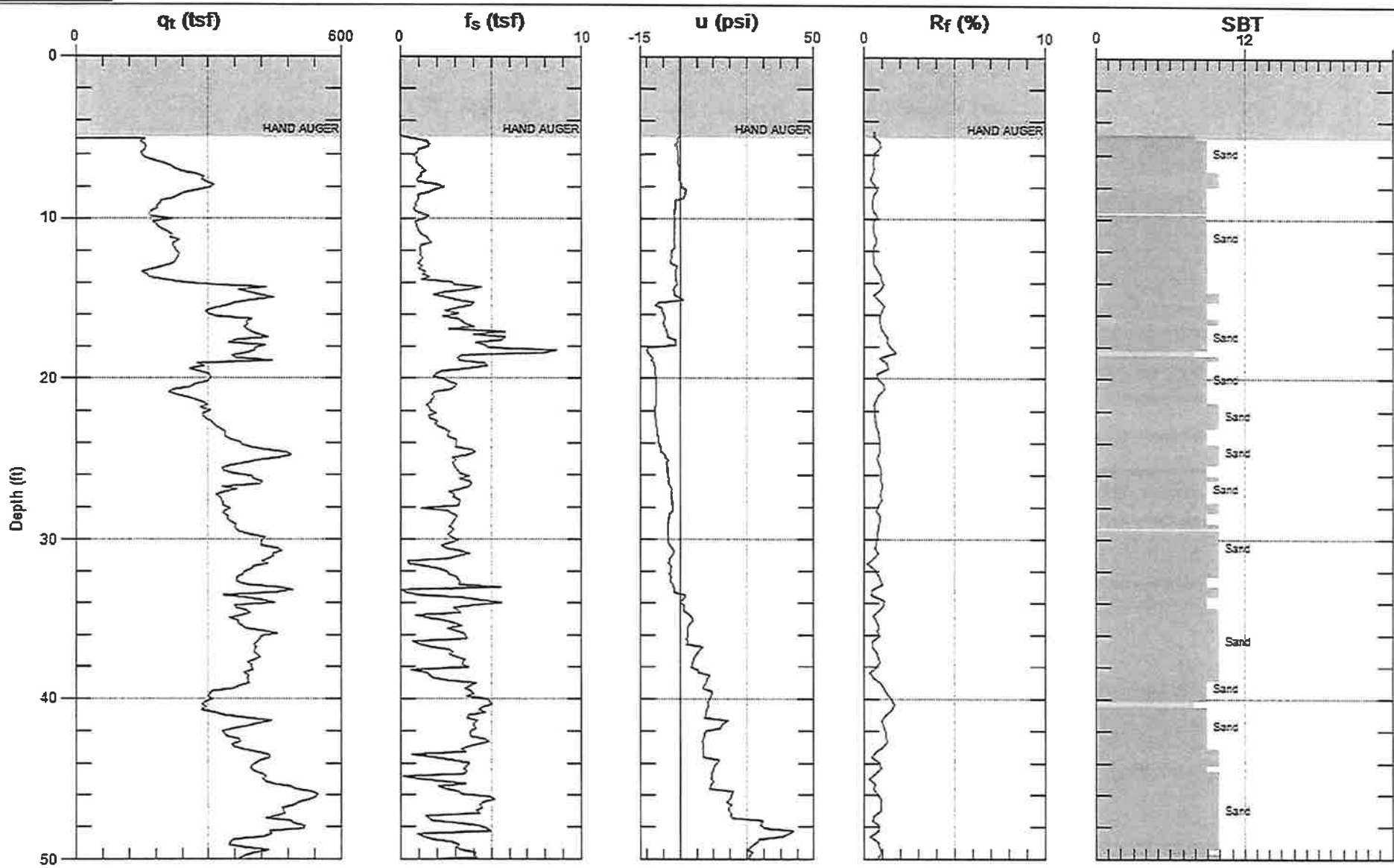
SBT: Soil Behavior Type (Robertson 1990)

GREGG

TWINING CONSULTANTS

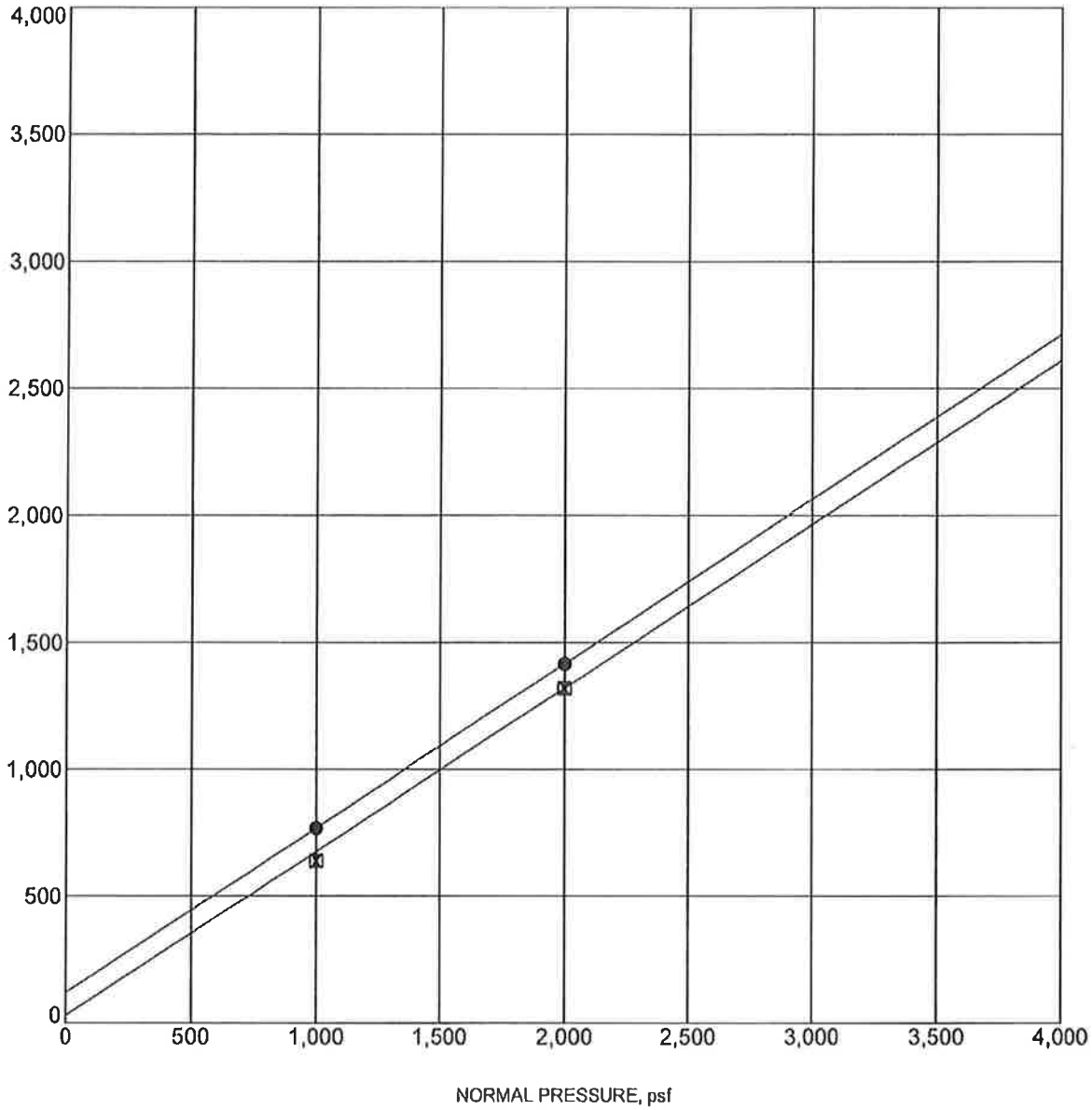
Site: NURSERY @7934 LANKERSHIM Engineer: S.LIN

Sounding: CPT-3 Date: 7/5/2016 09:40



Max. Depth: 50.197 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)



Boring No.:	B-1
Sample Depth (ft):	1-4
Sample Description:	Poorly graded SAND with silt
Strain Rate (in./min):	0.005
Dry Density (pcf):	106.5

Shear Strength Parameters

	Peak	Ultimate
Cohesion, C (psf):	120	0
Friction Angle, Ø (deg):	33	33

Initial Moisture (%): 9.6
Final Moisture (%): 15.6

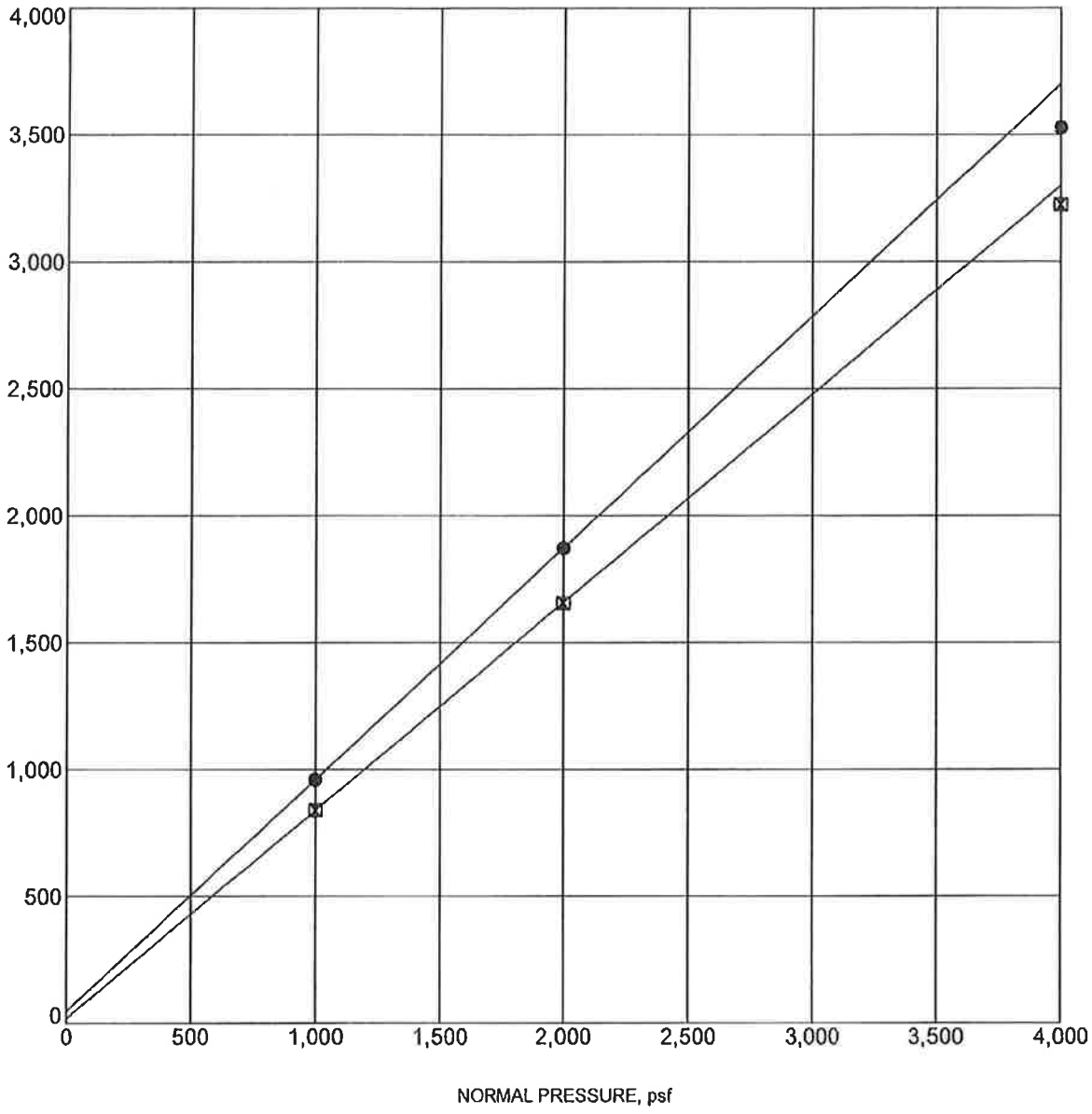
TWINING

REMOLDED DIRECT SHEAR TEST

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	B-2

DIRECT SHEAR 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 7/27/16



Boring No.:	B-2
Sample Depth (ft):	10
Sample Description:	Poorly graded SAND with silt
Strain Rate (in./min):	0.005
Dry Density (pcf):	90.2

Shear Strength Parameters

	Peak —●—	Ultimate —⊠—
Cohesion, C (psf):	40	20
Friction Angle, Ø (deg):	42	40

Initial Moisture (%): 1.5
Final Moisture (%): 19.3

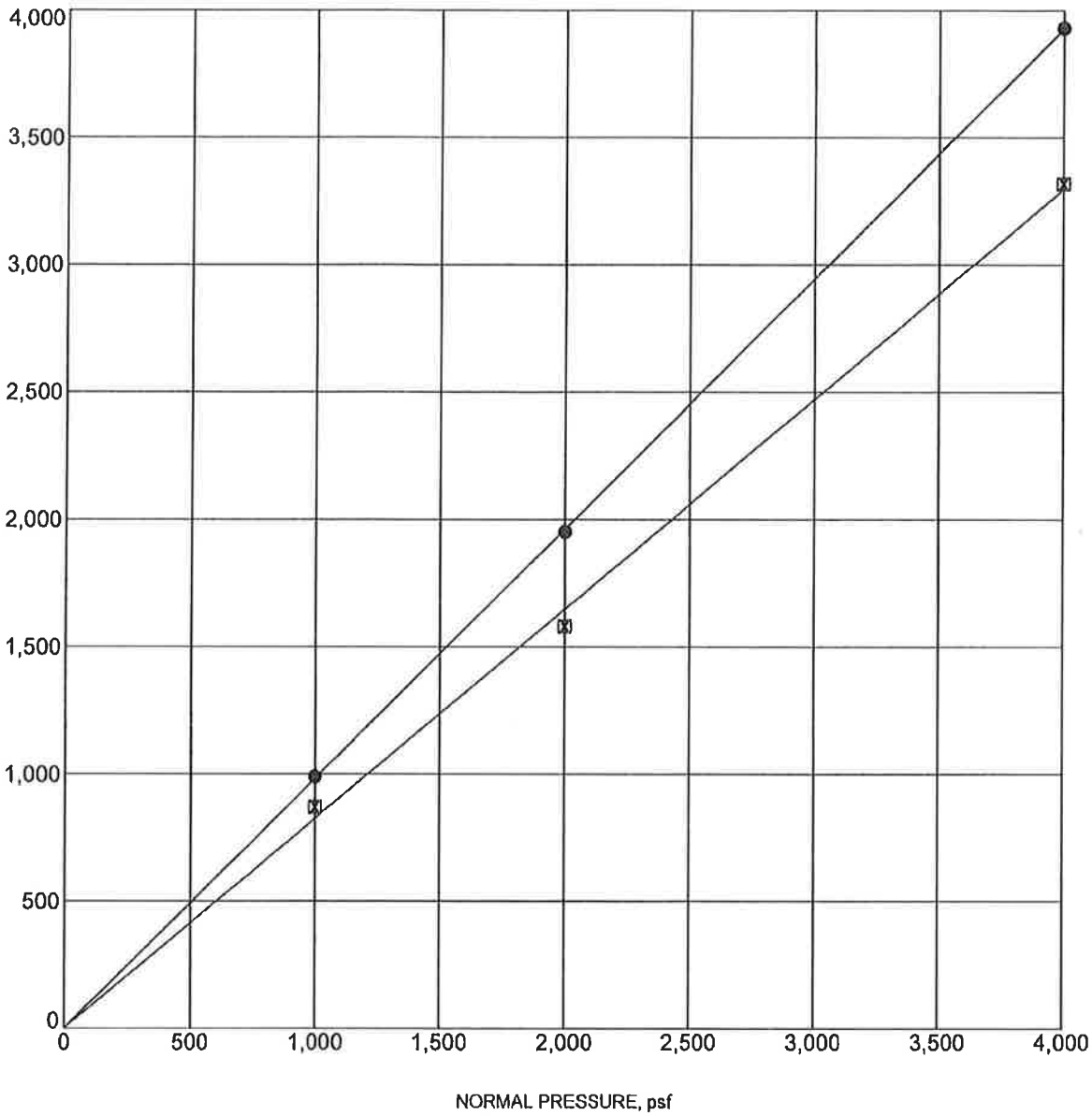
TWINING

DIRECT SHEAR TEST

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	B-3

DIRECT SHEAR 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 7/27/16



Boring No.:	B-3
Sample Depth (ft):	15
Sample Description:	Poorly graded SAND with silt
Strain Rate (in./min):	0.005
Dry Density (pcf):	110.0

Shear Strength Parameters

	Peak —●—	Ultimate —⊠—
Cohesion, C (psf):	0	0
Friction Angle, Ø (deg):	44	40

Initial Moisture (%): 2.0
Final Moisture (%): 19.1

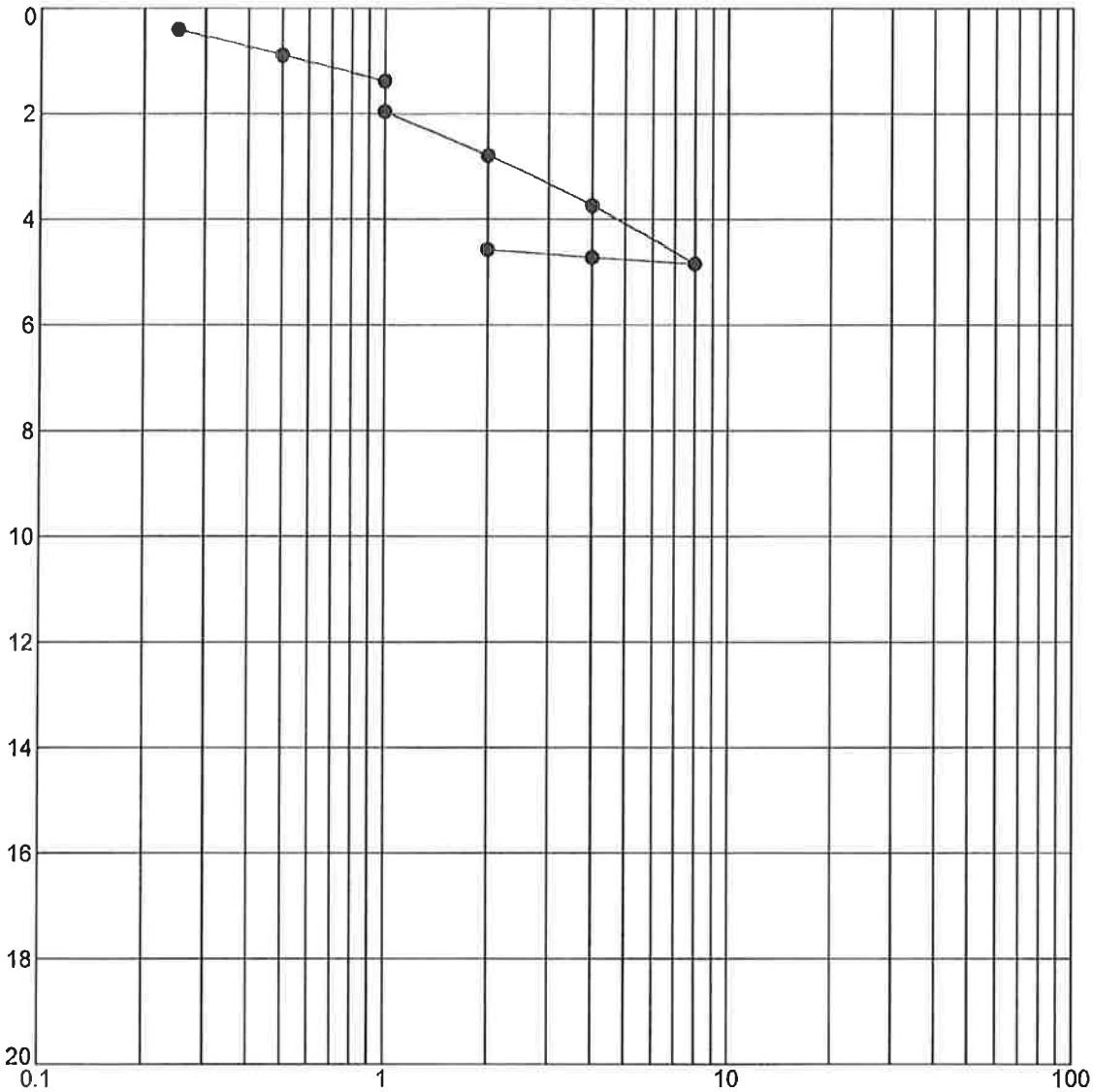
TWINING

DIRECT SHEAR TEST

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	
160511.1	August 2016	FIGURE B-4

DIRECT SHEAR 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 7/28/16



Sample Location	Soil Description	Dry Density (pcf)	Moisture Content (%)
● B-1 at 5 ft	Poorly graded SAND with silt and gravel	102.5	2.0

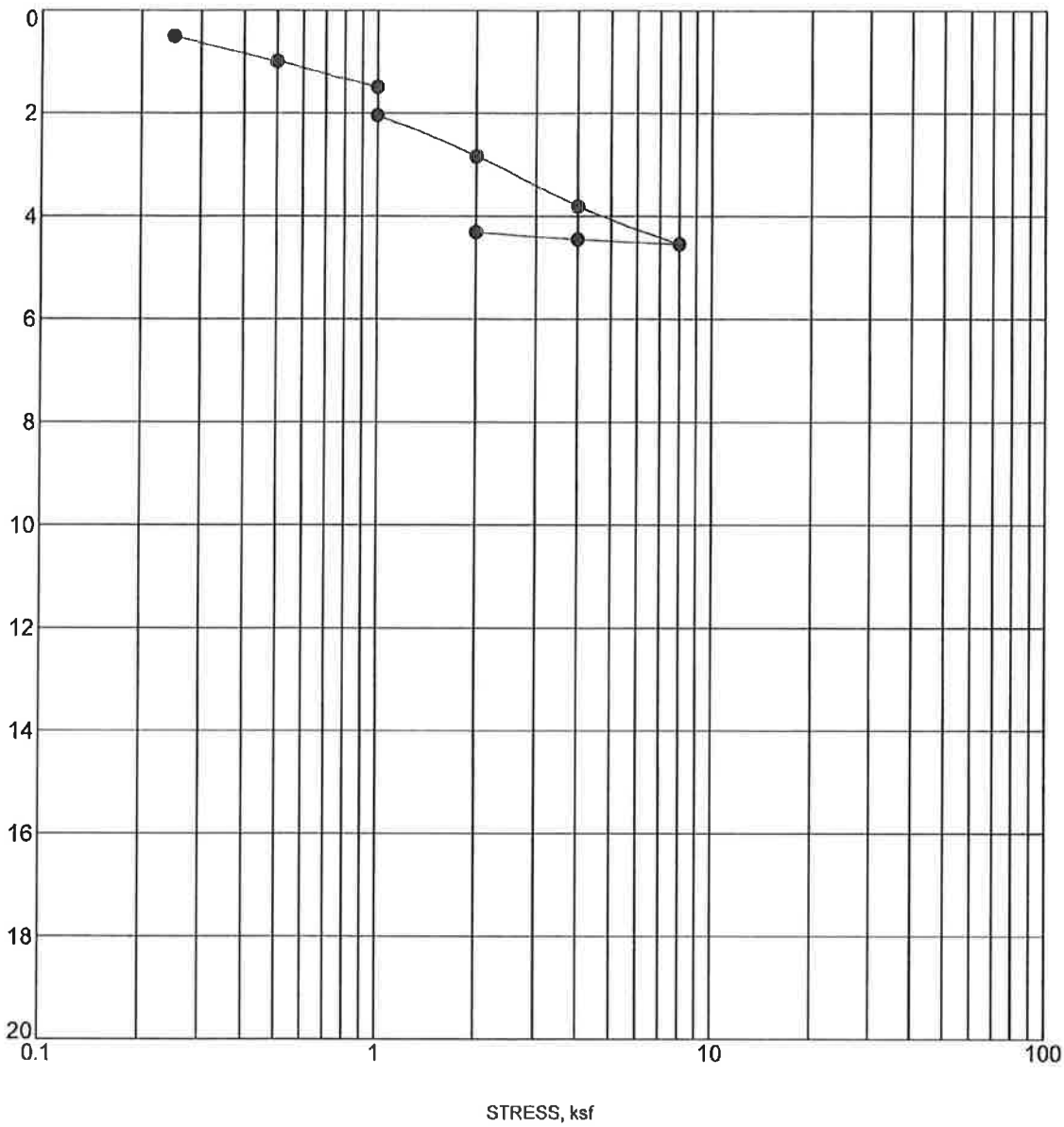
TWINING

CONSOLIDATION TEST

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	B-5

CONSOL STRAIN 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 7/29/16



Sample Location	Soil Description	Dry Density (pcf)	Moisture Content (%)
● B-4 at 10 ft	Poorly graded SAND	98.3	1.2

TWINING

CONSOLIDATION TEST

Lankershim Square
North Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE
160511.1	August 2016	B-6

CONSOL STRAIN 160511.1 - LANKERSHIM.GPJ TWINING LABS.GDT 7/28/16

Appendix C
Percolation Testing

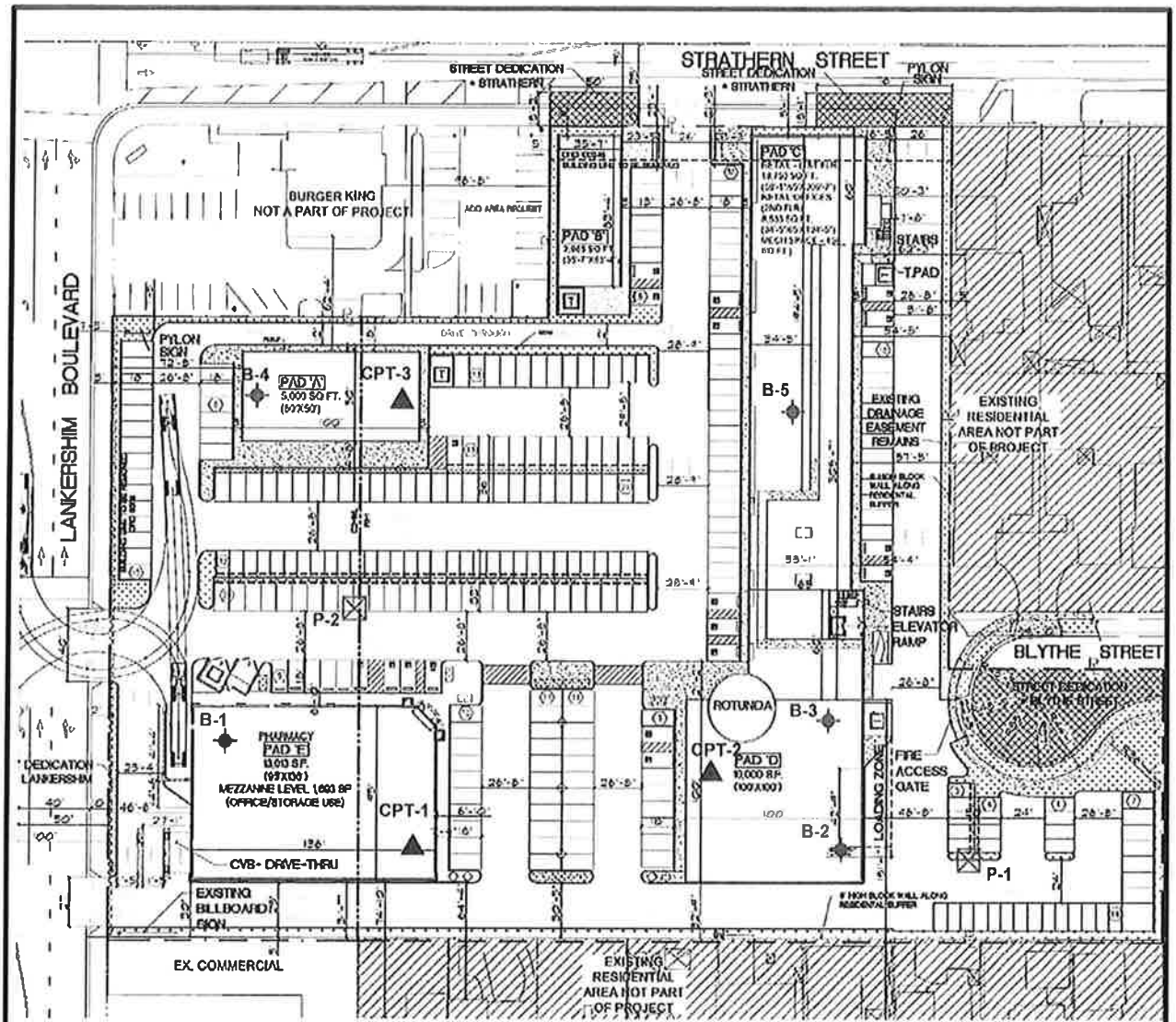
Two percolation test borings were excavated at the project site as shown on Figure 2 – Boring and CPT Location Map. One boring was advanced to approximately 4 feet below the existing ground surface and the second boring was advanced to approximately 9 feet below the existing ground surface. Percolation testing was performed in a 8-inch diameter soil borings on July 5 and 6, 2016 in general conformance with the County of Los Angeles requirements.

The purpose of the tests was to evaluate the infiltration rates of the subgrade soils. Approximately 2 inches of coarse gravel was placed at the bottoms of the boreholes to prevent scouring during testing. A 2-inch diameter slotted screening PVC pipe was inserted in the borehole and coarse gravel was used to fill around the pipes. The boreholes were presoaked prior to testing. After the completion of presoaking, the borings were filled with water at a minimum depth of 12 inches above the bottom of excavation. Measurements were taken at approximate10-minute intervals and then refill to same water depth for a total of 8 readings. A summary of results is presented in Table C-1 and the detailed data is attached.

Upon completion of the borings and testing, the boreholes were backfilled with soil from the cuttings as noted in the Log of Boring.

Table C-1 - Summary of Percolation Test Results

Test Location	Depth of Test Hole (in.)	Design Infiltration Rate (in/hr)
P-1	108	**6.34**
P-2	48	**6.39**



LEGEND

CPT-1 ▲ Approximate CPT location and number

B-1 ✦ Approximate boring location and number

P-1 ☒ Approximate percolation location and number

N

Reference: CCA Architect (2008)

TWINING CONSULTING

EXPLORATION LOCATION MAP

Lankershim Square
7934 Lankershim Boulevard
Hollywood, California

PROJECT NO.	REPORT DATE	FIGURE 2
160511.1	August 2016	

March 30, 2020
BG 23185

APPENDIX II

Laboratory Testing and Log of Borings (Current Study)

March 30, 2020
BG 23185

APPENDIX II

LABORATORY TESTING

Undisturbed and bulk samples of alluvium were obtained from the borings and transported to the laboratory for testing and analysis. The samples were obtained by driving a ring-lined, barrel sampler conforming to ASTM D 3550-01 with successive drops of the sampler. Experience has shown that sampling causes some disturbance of the sample. However, the test results remain within a reasonable range. The samples were retained in brass rings of 2.50 inches outside diameter and 1.00 inch in height. The samples were stored in close fitting, waterproof containers for transportation to the laboratory.

Moisture-Density

The dry density of the samples was determined using the procedures outlined in ASTM D 2937-10. The moisture content of the samples was determined using the procedures outlined in ASTM D 2216-10. The results are shown on the enclosed Log of Borings.

Maximum Density

The maximum dry density and optimum moisture content of the future compacted fill were determined using the procedures outlined in ASTM D 1557-12, a five-layer standard. Remolded samples were prepared at 95 percent of the maximum dry density. The remolded samples were tested for shear strength.

Boring	Depth (Feet)	Earth Material	Soil Type and Color	Maximum Density (pcf)	Optimum Moisture %	Expansion Index
B1	0 - 10	Alluvium	Sand, Tan	127.0	11.0	7 - Very Low

Expansion Test

To find the expansiveness of the soil, a swell test was performed using the procedures outlined in ASTM D 4829-11. Based upon the testing, the upper ten feet of the earth materials are expected to exhibit a very low expansion potential.

APPENDIX II (Continued)

Shear Tests

Shear tests were performed on samples of the future compacted fill and alluvium using the procedures outlined in ASTM D 3080-11 and a strain controlled, direct-shear machine manufactured by Soil Test, Inc. The rate of deformation was 0.025 inch per minute. The samples were tested in an artificially saturated condition. Following the shear test, the moisture content of the samples was determined to verify saturation. The results are plotted on the enclosed Shear Test Diagrams.

Consolidation

Consolidation tests were performed on *in situ* samples of the alluvium and future compacted fill using the procedures outlined in ASTM D 2435-11. Results are graphed on the enclosed Consolidation Curves.

Corrosion

A bulk representative sample of the near-surface soils was transported to Environmental Geotechnology Laboratory for chemical testing. The testing was performed in accordance with Caltrans Standards 643 (pH), 422 (Chloride Content), 417 (Sulfate Content), and 532 (Resistivity). The results of the testing are reported in the following table:

CHEMICAL TEST RESULTS TABLE

Sample	Depth (Feet)	pH	Chloride (PPM)	Sulfate (%)	Resistivity (Ohm-cm)
BG1	0-10	8.04	125	0.001	20,000

The chloride and sulfate contents of the soil are negligible and not a factor in corrosion. The pH is near neutral and not a factor. The resistivity indicates that the soil is considered mildly corrosive to ferrous metals.

BYER
GEOTECHNICAL
INC.
1461 East Chevy Chase Drive, Suite 200, Glendale, CA 91206
tel 818.549.9959 fax 818.543.3747

SHEAR TEST DIAGRAM #1

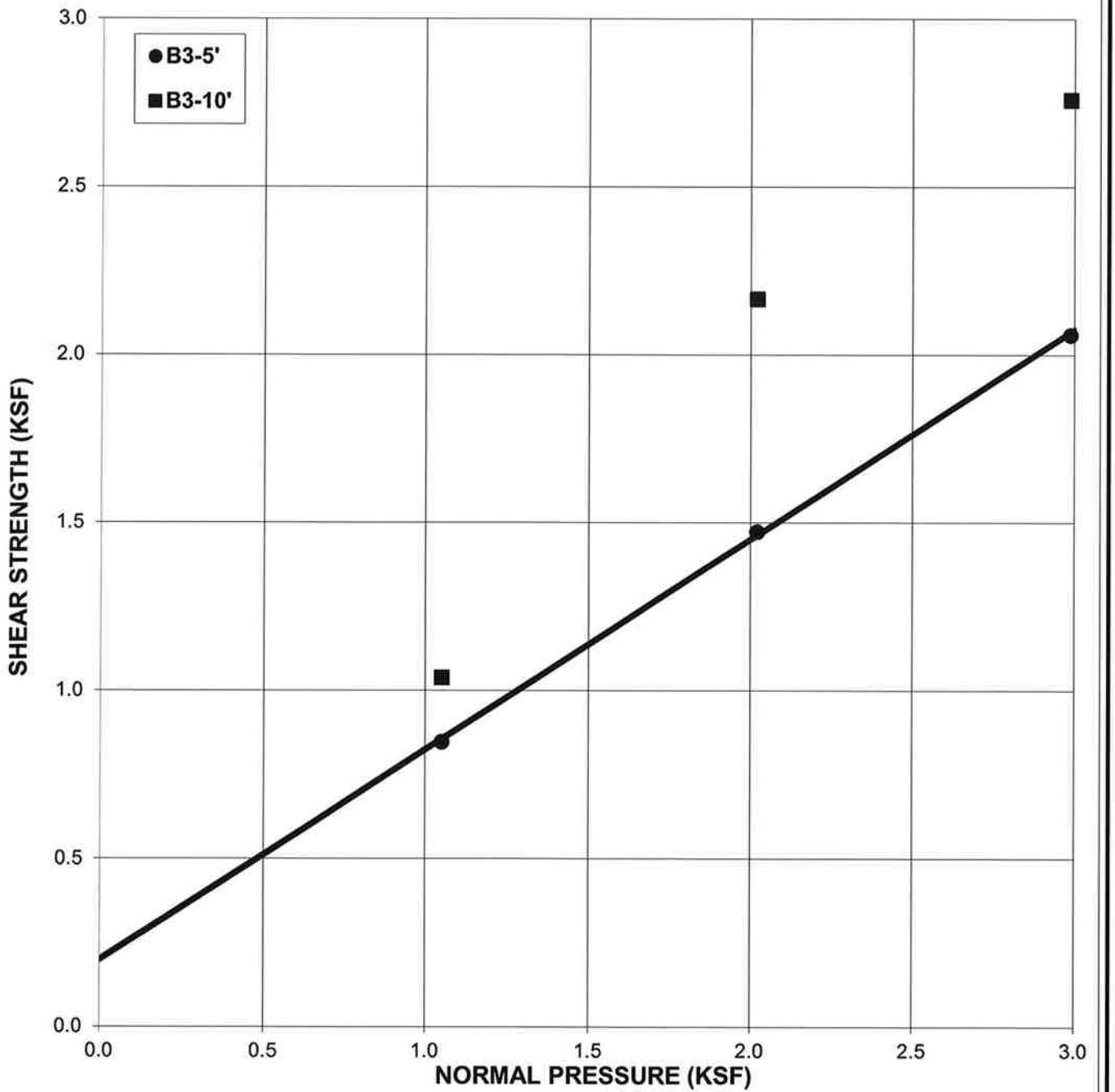
BG: **23185** ENGINEER: **JHP**
CLIENT: **Lankershim Crossing, LLC**

EARTH MATERIAL: **Alluvium**

Phi Angle = 32.0 degrees
Cohesion = 200 psf

Average Moisture Content 18.9%
Average Dry Density (pcf) 110.6
Average Saturation 99%

DIRECT SHEAR TEST - ASTM D-3080 (ULTIMATE VALUES)



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SHEAR TEST DIAGRAM #2

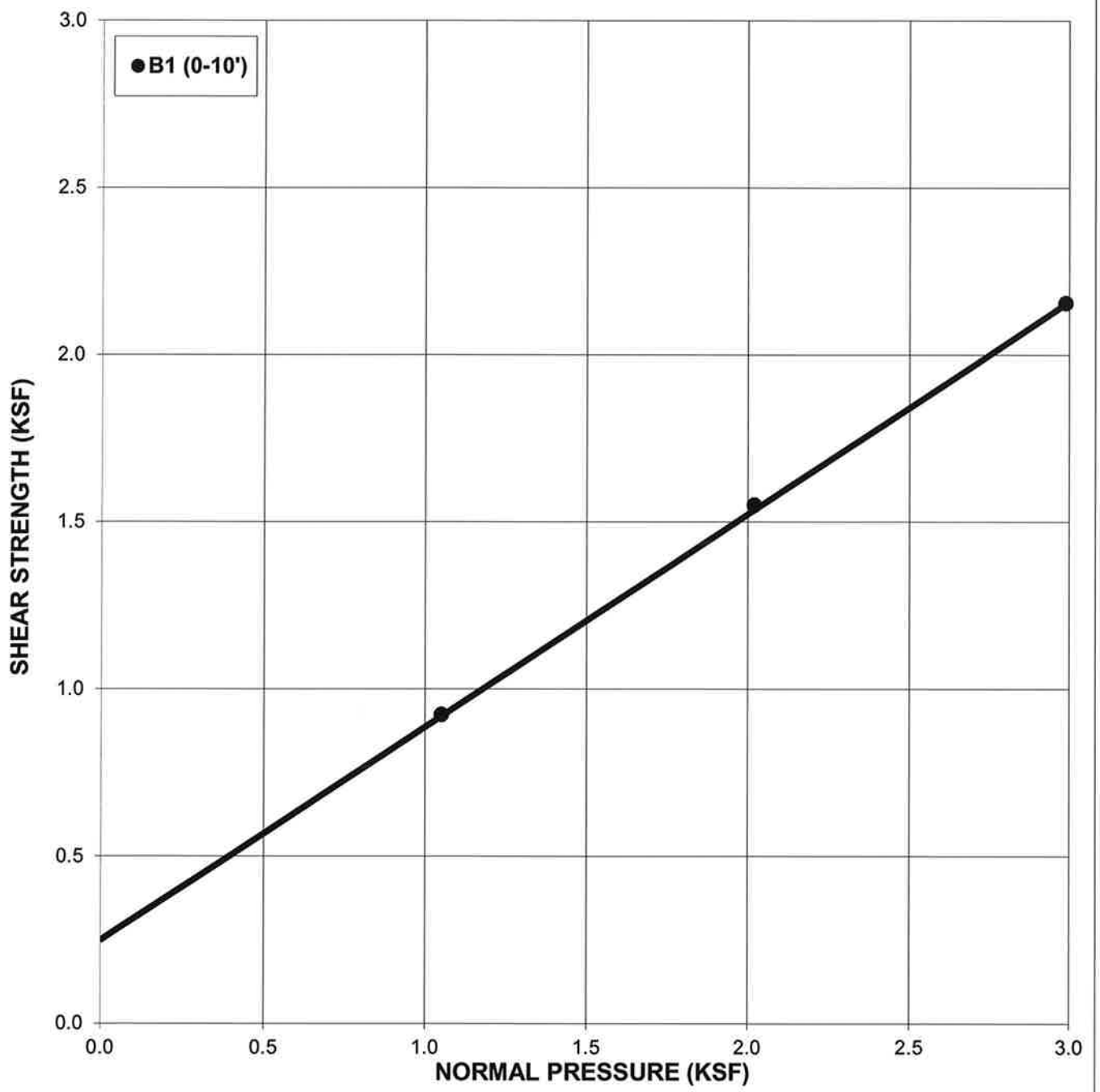
BG: **23185** ENGINEER: **JHP**
CLIENT: **Lankershim Crossing, LLC**

EARTH MATERIAL: **Future Compacted Fill (Remolded to 95%)**

Phi Angle = 32.5 degrees
Cohesion = 250 psf

Moisture Content 14.3%
Dry Density (pcf) 120.7
Saturation 99%

DIRECT SHEAR TEST - ASTM D-3080 (ULTIMATE VALUES)



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1461 E. CHEVY CHASE DRIVE, #200, GLENDALE, CA 91206
tel 818.549.9959 fax 818.543.3747

CONSOLIDATION CURVE #1

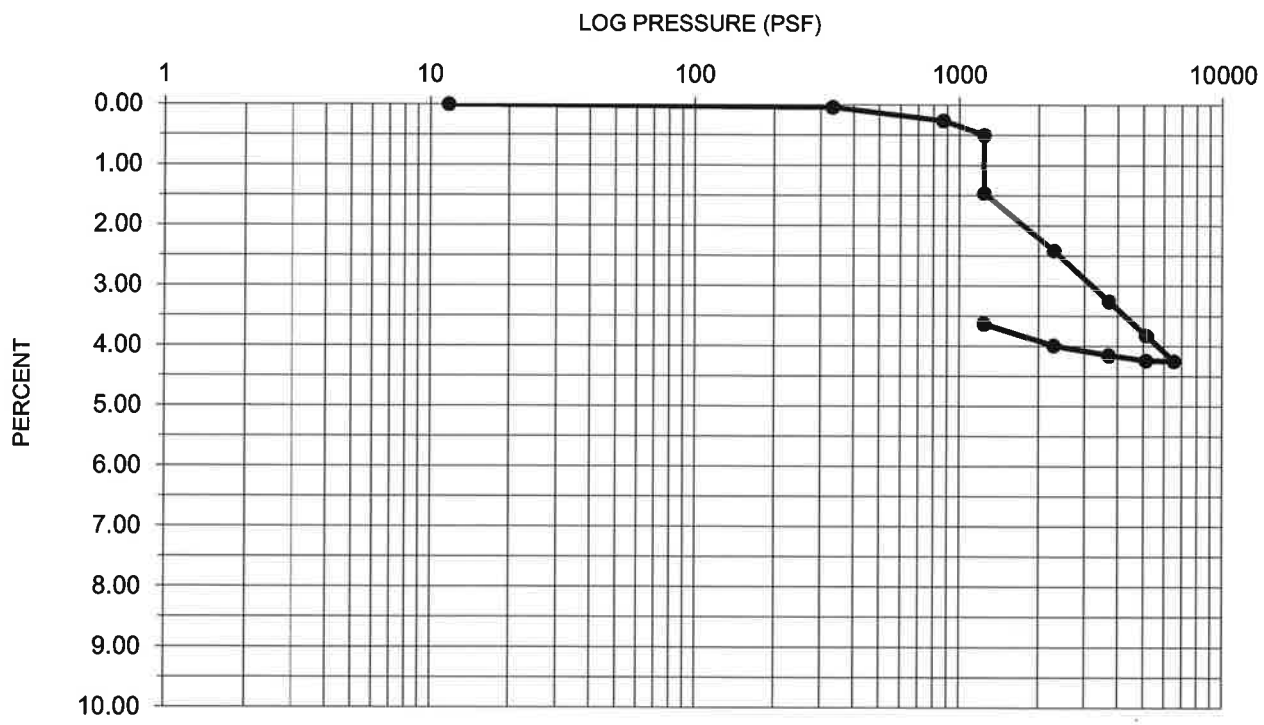
BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Alluvium
Sample Location:	B2-10'
Dry Weight (pcf):	108.0
Initial Moisture:	2.2%
Initial Saturation:	11.0%
Water Added at (psf)	1237

Specific Gravity:	2.65
Initial Void Ratio:	0.53
Compression Index (Cc):	0.062
Recompression Index (Cr):	0.021

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



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1461 E. CHEVY CHASE DRIVE, #200, GLENDALE, CA 91206
tel 818.549.9959 fax 818.543.3747

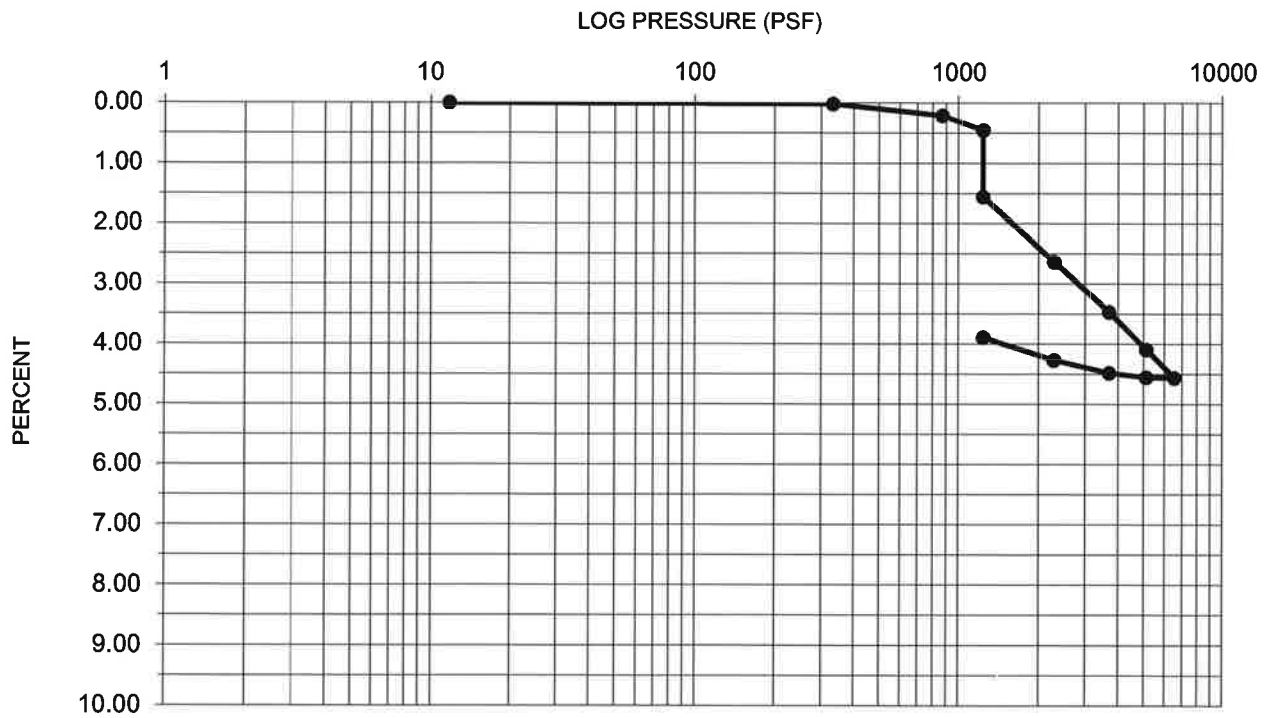
CONSOLIDATION CURVE #2

BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Alluvium		
Sample Location:	B1-15'	Specific Gravity:	2.65
Dry Weight (pcf):	119.7	Initial Void Ratio:	0.38
Initial Moisture:	3.3%	Compression Index (Cc):	0.061
Initial Saturation:	22.9%	Recompression Index (Cr):	0.020
Water Added at (psf)	1237		

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



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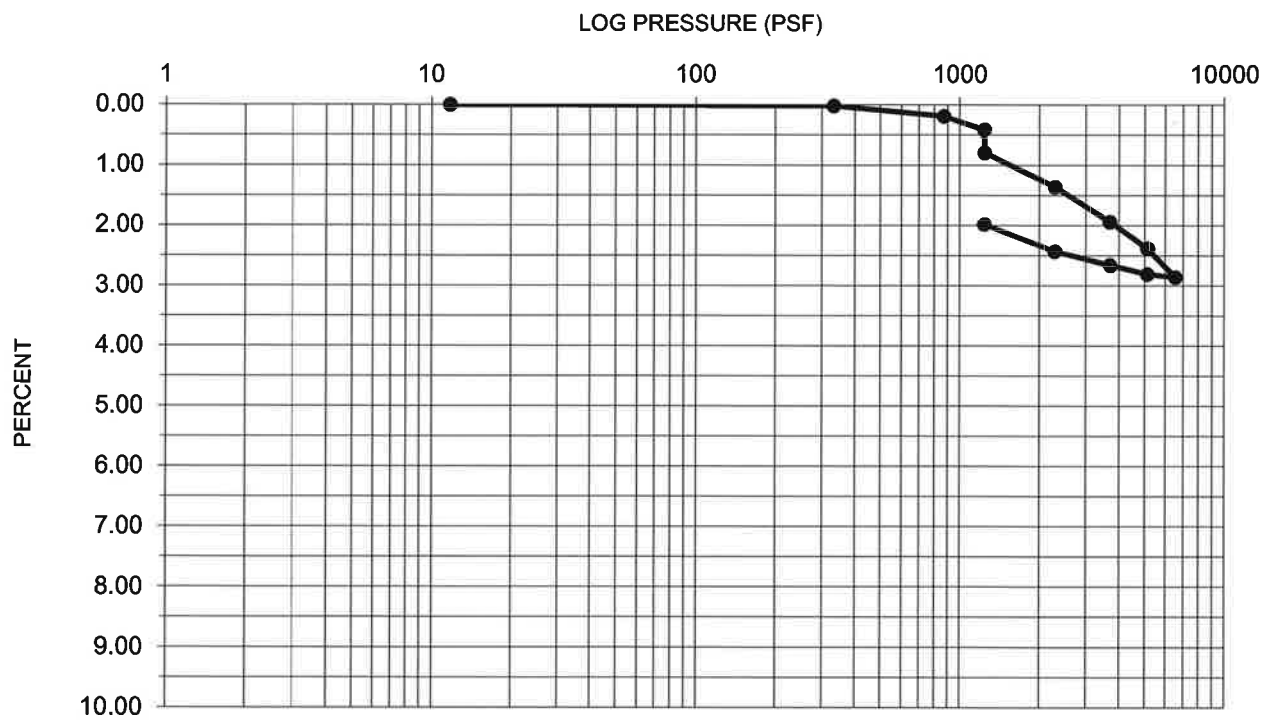
CONSOLIDATION CURVE #3

BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Alluvium		
Sample Location:	B3-20'	Specific Gravity:	2.65
Dry Weight (pcf):	107.4	Initial Void Ratio:	0.54
Initial Moisture:	3.8%	Compression Index (Cc):	0.069
Initial Saturation:	18.7%	Recompression Index (Cr):	0.026
Water Added at (psf)	1237		

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



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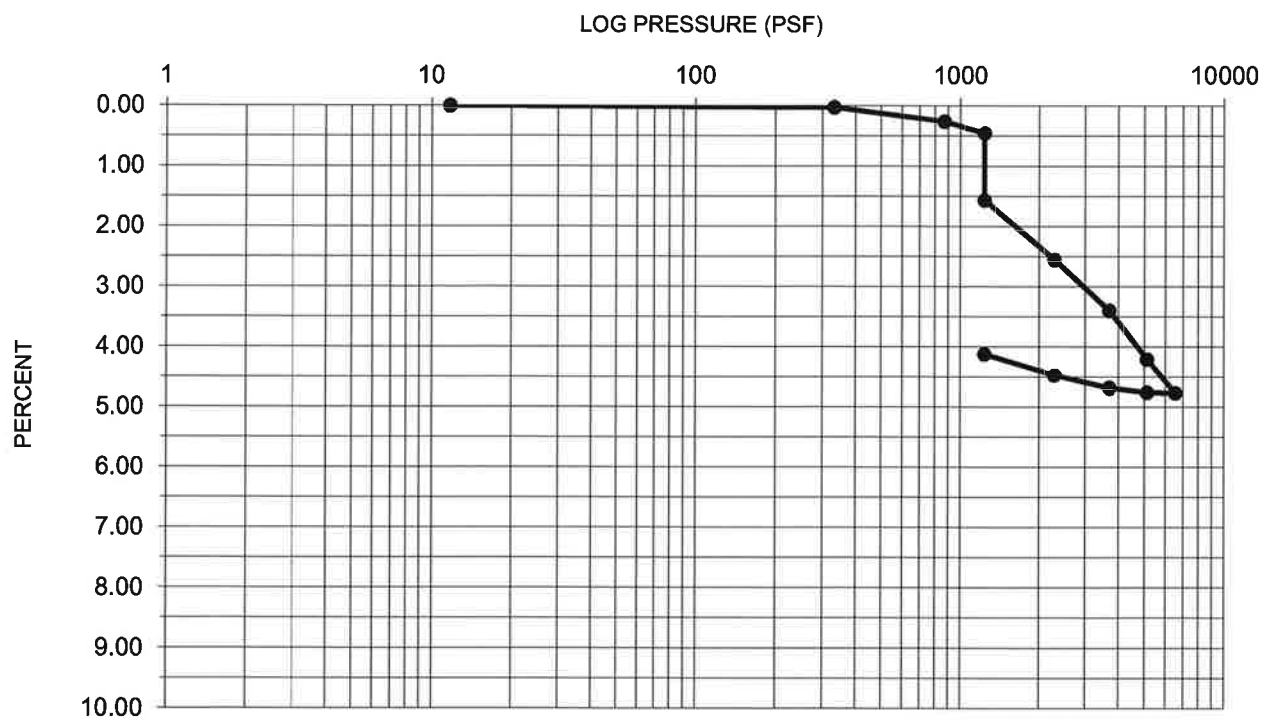
CONSOLIDATION CURVE #4

BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Alluvium		
Sample Location:	B1-25'	Specific Gravity:	2.65
Dry Weight (pcf):	118.4	Initial Void Ratio:	0.40
Initial Moisture:	2.5%	Compression Index (Cc):	0.080
Initial Saturation:	16.7%	Recompression Index (Cr):	0.018
Water Added at (psf)	1237		

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



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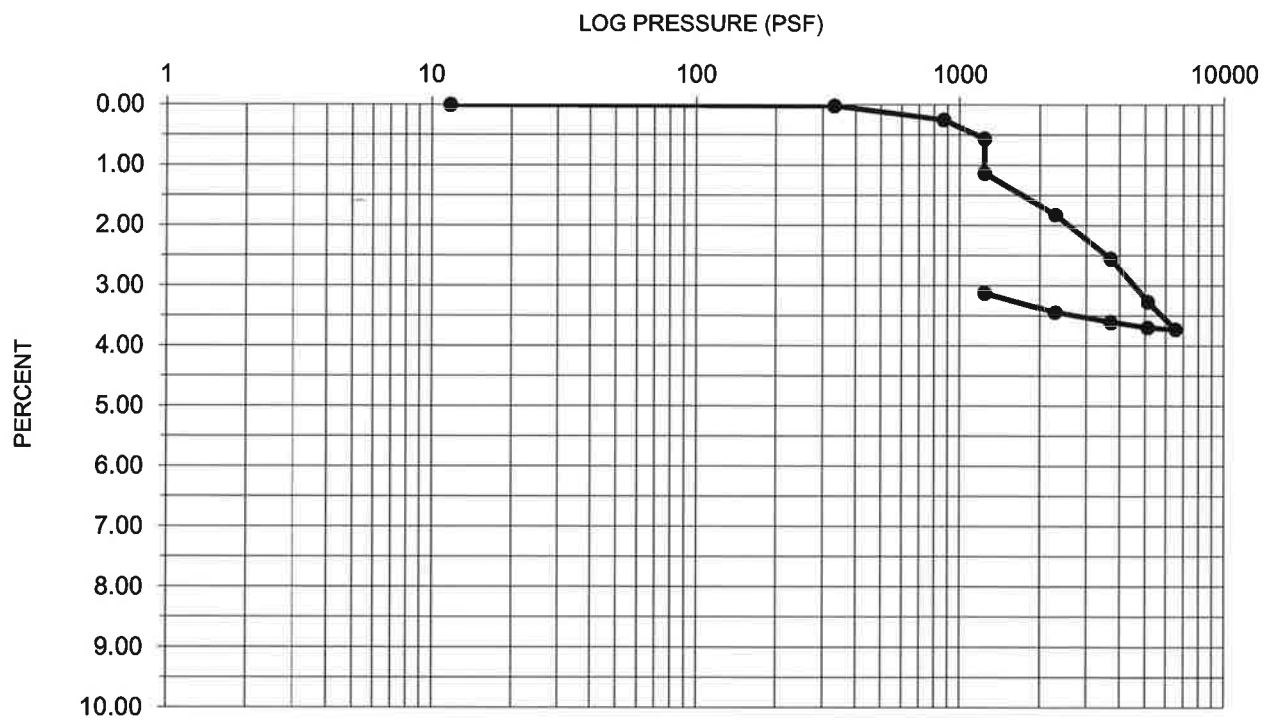
CONSOLIDATION CURVE #5

BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Alluvium		
Sample Location:	B3-30'	Specific Gravity:	2.65
Dry Weight (pcf):	117.9	Initial Void Ratio:	0.40
Initial Moisture:	2.8%	Compression Index (Cc):	0.071
Initial Saturation:	18.4%	Recompression Index (Cr):	0.017
Water Added at (psf)	1237		

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



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GEOTECHNICAL
INC.

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tel 818.549.9959 fax 818.543.3747

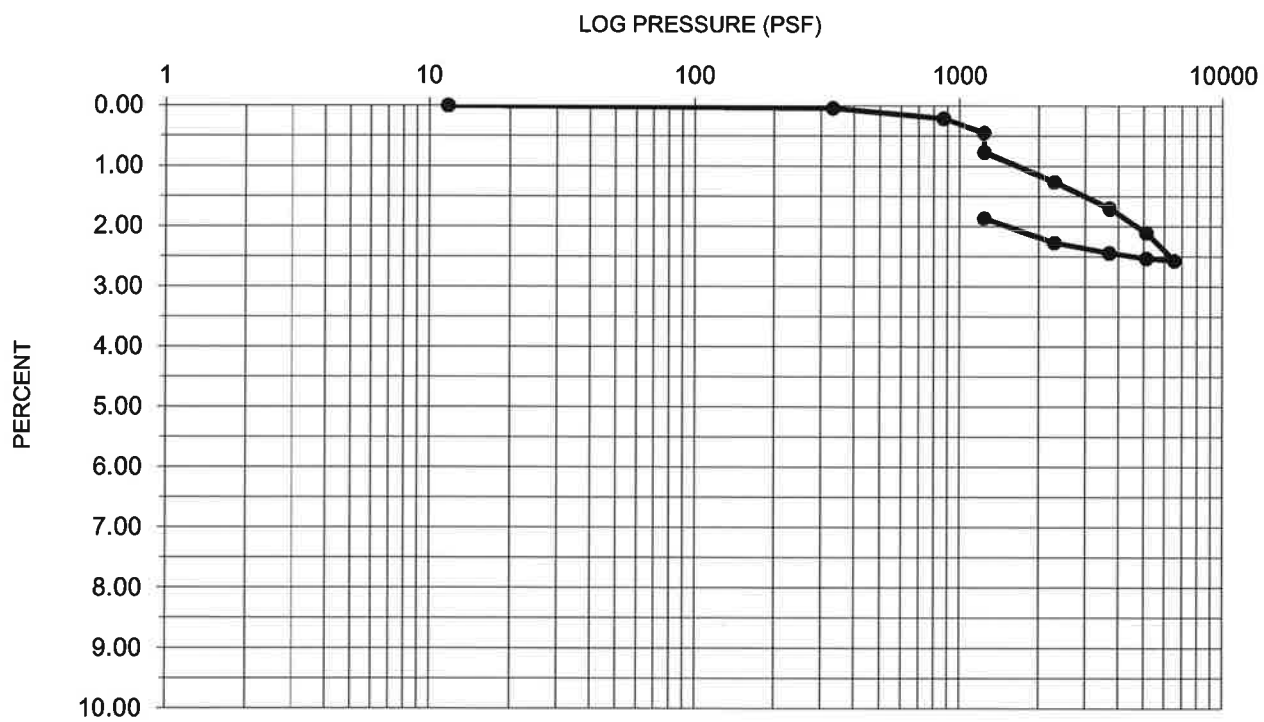
CONSOLIDATION CURVE #6

BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Alluvium		
Sample Location:	B1-35'	Specific Gravity:	2.65
Dry Weight (pcf):	109.0	Initial Void Ratio:	0.52
Initial Moisture:	5.1%	Compression Index (Cc):	0.065
Initial Saturation:	26.1%	Recompression Index (Cr):	0.023
Water Added at (psf)	1237		

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



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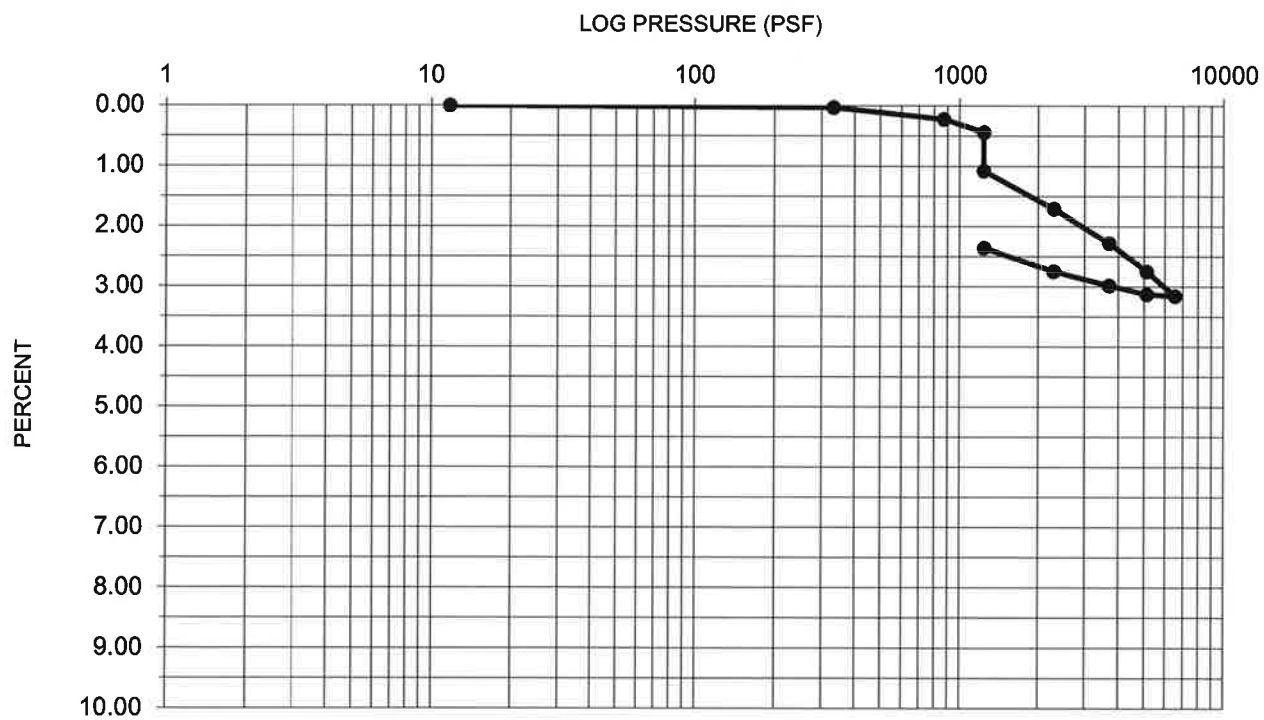
CONSOLIDATION CURVE #7

BG: **23185** ENGINEER: **JHP**

CLIENT: **Lankershim Crossing, LLC**

Earth Material:	Future Compacted Fill		
Sample Location:	B1 (0 -10')	Specific Gravity:	2.68
Dry Weight (pcf):	120.7	Initial Void Ratio:	0.39
Initial Moisture:	11.0%	Compression Index (Cc):	0.053
Initial Saturation:	76.4%	Recompression Index (Cr):	0.020
Water Added at (psf)	1237		

CONSOLIDATION DIAGRAM (ASTM D 2435-11)



BYER GEOTECHNICAL, INC.

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GLENDALE, CA 91206
818.549.9959 TEL
818.543.3747 FAX

LOG OF BORING B1

BG No. 23185
PAGE 1 OF 2

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20
PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP
CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter
DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 803.5 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
	0	(SM) Surface: Gravel. **FILL (Afu):** 0 - 1.5': Silty SAND, olive-brown, dry, fine to medium sand.		SM						
		(SP) **ALLUVIUM (Qa):** 1.5'-2.5': SAND, tan, dry, medium dense, fine to medium sand, some coarse sand, some fine gravel, subangular.		SP						
800		(SP) 2.5': SAND, tan, dry, medium dense, fine to medium sand, some coarse sand, some fine gravel, subangular.		SP	R1	5 8 10	1.9	111.3	10	Direct Shear (*in-situ*) Max, El, Corrosion Suite, Remoded Shear (95%), Remolded Consolidation (95%)
	5	(SP) 5': SAND, tan, dry, medium dense, fine to medium sand, some coarse sand, some fine gravel, subangular.		SP	Bag1 S1	3 6 8	4.1			
795		(SW) 7.5': Gravelly SAND, light tan, dry, medium dense, fine to coarse sand, fine gravel, subrounded.		SW	R2	12 17 21	1.9	119.4	13	Direct Shear (*in-situ*)
	10	(SW) 10': Gravelly SAND, light tan, dry, medium dense, fine to coarse sand, fine gravel, subrounded.		SW	S2	4 14 7	1.9			
790										
	15	(SM) 15': Silty SAND, olive-brown, dry, dense, fine to medium sand, some fine gravel, 15.2% fines.		SM	R3	5 14 38	3.3	119.6	23	Consolidation, Sieve Wash (-#200)
785										
	20	(SP) 20': SAND, light olive-brown, dry, medium dense, fine to medium sand, some coarse sand, some fine gravel.		SP	S3	6 10 11	2.9			
780										
	25									

Bulk Sample ■ Ring Sample ⊠ Standard Penetration Test

BORING LOG BYER BY RSB - GINT STD US BYER.GDT - 3/31/20 09:09 - P:\23000 - 23999\23185 LANKERSHIM CROSSING_NO HO\23185 BORING LOGS.GPJ

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GLENDALE, CA 91206
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818.543.3747 FAX

LOG OF BORING B1

BG No. 23185

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20

PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP

CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter

DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 803.5 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
	25	(SW) 25': Gravelly SAND, tan, dry, very dense, fine to coarse sand, fine to coarse gravel.		SW	R4	22 31 50/5"	2.5	118.4	17	Consolidation
775	30	(SP) 30': SAND, light olive-brown, dry, dense, fine to medium sand, some coarse sand, some fine gravel.		SP	S4	10 14 18	4			
770	35	(SP-SM) 35': SAND with silt, gray- to olive-brown, dry, dense, fine to medium sand, some coarse sand, 11.5% fines.		SP-SM	R5	12 22 42	5.1	109	26	Consolidation, Sieve Wash (-#200)
765	40	(SW) 40': Gravelly SAND, tan, dry, very dense, fine to coarse sand, fine to coarse gravel.		SW	S5	30 39 50	2.6			

End at 41.5 Feet; No Groundwater; Fill to 1.5 Feet.

Bulk Sample Ring Sample Standard Penetration Test

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LOG OF BORING B2

BG No. 23185
PAGE 1 OF 1

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20
PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP
CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter
DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 805 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
805	0	(SM) Surface: Exposed earth. **FILL (Afu):** 0 - 2.5': Silty SAND, dark brown, slightly moist, fine to medium sand, some fine gravel.		SM	Bag2					
800	5	(SW) **ALLUVIUM (Qa):** 2.5': Gravelly SAND, olive to tan, dry, medium dense, fine to coarse sand, fine to coarse gravel up to 2 inches, subangular.		SW	R1	9 9 10	2.4	120.4	17	
		(SW) 5': Gravelly SAND, tan, dry, medium dense, fine to coarse sand, fine to coarse gravel up to 2 inches, subangular.		SW	R2	7 10 12	2.8	119.4	19	
795	10	(SP) 7.5': SAND, tan, dry, loose, fine to medium sand, some coarse sand.		SP	S1	2 2 3	3.8			
790	15	(SP) 10': SAND, tan, dry, very dense, fine to medium sand, some coarse sand.		SP	R3	8 27 50/5"	2.2	108	11	Consolidation
785	20	(SP) 15': SAND, tan, dry, medium dense, fine to medium sand, some coarse sand, some fine gravel.		SP	S2	3 6 9	3.2			
		(SW) 20': Gravelly SAND, very light gray, dry, very dense, fine to coarse sand, fine to coarse gravel.		SW	R4	21 30 39	2.4	130.5	24	

End at 21.5 Feet; No Groundwater; Fill to 2.5 Feet.

Bulk Sample Ring Sample Standard Penetration Test

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LOG OF BORING B3

BG No. 23185
PAGE 1 OF 2

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20
PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP
CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter
DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 807 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
	0	(SM) Surface: Exposed earth.		SM						
805		**FILL (Afu):** 0 - 2.5': Silty SAND, brown, dry, fine to medium sand.								
		(SW) **ALLUVIUM (Qa):** 2.5': Gravelly SAND, light tan, dry, medium dense, fine to coarse sand, fine gravel.		SW	S1	8 6 9	5			
	5	(SW) 5': Gravelly SAND, light tan, dry, medium dense, fine to coarse sand, fine gravel.		SW	R1	9 9 11	2.1	109	9	Direct Shear
800		(SW) 7.5': Gravelly SAND, light tan, dry, medium dense, fine to coarse sand, fine gravel.		SW	S2	7 7 8	2.1			
	10	(SW) 10': Gravelly SAND, light tan, dry, dense, fine to coarse sand, fine gravel.		SW	R2	11 20 25	2	118.1	13	Direct Shear
795										
	15	(SW) 15': Gravelly SAND, light tan, dry, dense, fine to coarse sand, fine gravel.		SW	S3	6 16 17	2.3			
790										
	20	(SP) 20': Gravelly SAND, tan to light olive, dry, very dense, fine to coarse sand, fine gravel.		SP	R3	12 30 50/3"	3.8	107.4	19	Consolidation
785										
	25									

Standard Penetration Test
Ring Sample

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LOG OF BORING B3

BG No. 23185

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20

PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP

CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter

DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 807 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
	25	(SP) 25': Gravelly SAND, very light olive-brown, dry, very dense, fine to coarse sand, fine gravel.		SP	S4	30 27 25	2.2			
780										
	30	(SP) 30': Gravelly SAND, very light olive-brown, dry, very dense, fine to coarse sand, fine gravel.		SP	R4	23 37 44	2.8	117.9	18	Consolidation

End at 31.5 Feet; No Groundwater; Fill to 2.5 Feet.

Standard Penetration Test

Ring Sample

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LOG OF BORING B4

BG No. 23185
PAGE 1 OF 2

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20
PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP
CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter
DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 804 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
	0	(SM) Surface: Exposed earth. **FILL (Afu):** 0 - 2.5': Silty SAND, brown, dry, fine to medium sand.		SM						
800	5	(SP) **ALLUVIUM (Qa):** 2.5': SAND, very light olive, dry, medium dense, fine to medium sand, trace coarse sand.		SP	S1	3 6 6	4.8			
		(SW) 5': Gravelly SAND, light tan, dry, medium dense, fine to coarse sand, fine gravel.		SW	R1	6 9 19	1.9	119.8	13	
795	10	(SW) 7.5': Gravelly SAND, tan, dry, dense, fine to coarse sand, fine gravel.		SW	S2	4 12 18	2.7			
		(SW) 10': Gravelly SAND, tan, dry, medium dense, fine to coarse sand, fine gravel.		SW	R2	10 16 21	3.1	116.4	19	
790	15	(SW) 15': Gravelly SAND, very light gray, dry, dense, fine to coarse sand, fine gravel.		SW	S3	8 20 37	1.5			
785	20	(SP) 20': Gravelly SAND, very light gray, dry, very dense, fine to coarse sand, fine gravel.		SP	R3	20 40 41	2.5	125.6	21	
780	25									

Standard Penetration Test ■ Ring Sample ⊘ No Recovery

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LOG OF BORING B4

BG No. 23185
PAGE 2 OF 2

CLIENT Lankershim Crossing, LLC **REPORT DATE** 3/30/20 **DRILL DATE** 1/30/20
PROJECT LOCATION 7918-7946 N. Lankershim Blvd., North Hollywood, CA **LOGGED BY** JHP
CONTRACTOR Martini Drilling **DRILLING METHOD** Hollow-Stem Auger **HOLE SIZE** 8-inch diameter
DRIVE WEIGHT 140-Pound Automatic Hammer **HAMMER DROP** 30 Inches **ELEV. TOP OF HOLE** 804 ft

ELEVATION (ft)	DEPTH (ft)	EARTH MATERIAL DESCRIPTION	GRAPHIC SYMBOL	USCS UNIT	SAMPLE TYPE & NUMBER	BLOW COUNT (Per 6 Inches)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	SATURATION (%)	TYPE OF TEST
	25	(SP) 25': SAND with gravel, light olive, dry, dense, fine to medium sand, some coarse sand, some fine gravel, angular.		SP	S4	9 16 25	3.2			
775	30	(SP) 30': SAND with gravel, light olive, dry, dense, fine to medium sand, some coarse sand, some fine gravel, angular. Note: Cobble stuck in sampler tip.		SP		50/2"				No Recovery

End at 31.5 Feet; No Groundwater; Fill to 2.5 Feet.

Standard Penetration Test | Ring Sample | No Recovery

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March 30, 2020
BG 23185

APPENDIX III

Calculations and Figures

SEISMIC SOURCES
EZ-FRISK V7.65

DETERMINISTIC CALCULATION
OF PEAK GROUND ACCELERATION BASED ON DIGITIZED FAULT DATA

BG: 23185 ANALYSIS DATE: 3/23/2020
CLIENT: Lankershim Crossing, LLC ENGINEER: JHP
PROJECT DESCRIPTION: Proposed 7-Story Mixed-Use Building over One Subterranean Level

SITE COORDINATES: LATITUDE: 34.2149
LONGITUDE: -118.3868

SEARCH RADIUS: 100 km

ATTENUATION RELATIONS: CHIOU-YOUNGS (2007) NGA USGS 2008 MRC
BOORE-ATKINSON (2008) NGA USGS 2008 MRC
CAMPBELL-BOZORGNIA (2008) NGA USGS 2008 MRC

SEISMIC SOURCE SUMMARY
DETERMINISTIC SITE PARAMETERS

FAULT NAME	APPROXIMATE DISTANCE		MAXIMUM EATHQUAKE MAGNITUDE	PEAK GROUND ACCELERATION
	(km)	(mi)	(Mw)	(g)
Verdugo	1.9	1.2	6.9	0.597
Sierra Madre (San Fernando)	7.9	4.9	6.7	0.393
Sierra Madre Connected	7.9	4.9	7.3	0.439
Santa Monica	10.6	6.6	7.4	0.574
Sierra Madre	11.0	6.8	7.2	0.375
Hollywood	12.1	7.5	6.7	0.377
Northridge	12.3	7.7	6.9	0.501
Elysian Park (Upper)	14.4	8.9	6.7	0.326
San Gabriel	14.9	9.2	7.3	0.321
Santa Susana, alt 1	15.7	9.8	6.9	0.288
Puente Hills (LA)	17.4	10.8	7.0	0.326
Raymond	18.2	11.3	6.8	0.262
Newport-Inglewood	19.1	11.9	7.5	0.296
Puente Hills	19.1	11.9	7.1	0.324
Malibu Coast	23.5	14.6	7.0	0.239
Anacapa-Dume	24.2	15.0	7.2	0.277

FAULT NAME	APPROXIMATE DISTANCE		MAXIMUM EATHQUAKE MAGNITUDE	PEAK GROUND ACCELERATION
	(km)	(mi)	(Mw)	(g)
Holser, alt 1	25.7	16.0	6.8	0.216
Puente Hills (Santa Fe Springs)	27.4	17.0	6.7	0.230
Simi-Santa Rosa	30.1	18.7	6.9	0.185
Palos Verdes	31.4	19.5	7.3	0.205
Palos Verdes Connected	31.4	19.5	7.7	0.237
Clamshell-Sawpit	32.5	20.2	6.7	0.171
Oak Ridge Connected	35.6	22.1	7.4	0.219
Oak Ridge (Onshore)	36.4	22.6	7.2	0.207
Elsinore	39.6	24.6	7.9	0.217
San Cayetano	42.3	26.3	7.2	0.164
Puente Hills (Coyote Hills)	42.6	26.5	6.9	0.166
Southern San Andreas	44.4	27.6	8.2	0.231
San Jose	49.4	30.7	6.7	0.116
Chino	58.0	36.0	6.8	0.102
Cucamonga	58.1	36.1	6.7	0.100
Santa Ynez (East)	60.1	37.4	7.2	0.123
Santa Ynez Connected	60.3	37.5	7.4	0.135
Ventura-Pitas Point	70.8	44.0	7.0	0.106
Pitas Point Connected	70.8	44.0	7.3	0.124
San Joaquin Hills	71.4	44.4	7.1	0.172
Imp Extensional Gridded, Char, Normal	55.0	34.2	7.0	0.106
Imp Extensional Gridded, Char, Strike Slip	55.0	34.2	7.0	0.128
Imp Extensional Gridded, GR, Normal	54.9	34.2	7.0	0.106
Imp Extensional Gridded, GR, Strike Slip	54.9	34.2	7.0	0.128
Mission Ridge-Arroyo Parida-Santa Ana	75.1	46.7	6.9	0.086
San Jacinto	76.0	47.3	7.9	0.139
Oak Ridge (Offshore)	78.6	48.8	7.0	0.087
Garlock	81.1	50.4	7.7	0.122
Pleito	83.1	51.6	7.1	0.087
Channel Islands Thrust	83.5	51.9	7.3	0.112
Santa Cruz Island	84.4	52.5	7.2	0.088
Red Mountain	85.4	53.1	7.4	0.100
Cleghorn	85.4	53.1	6.8	0.069
North Channel	96.1	59.7	6.8	0.067

50 Faults found within a 100 km Search Radius.
Closest Fault to the Site: Verdugo Distance = 1.94 km (1.21mi)
Largest Peak Ground Acceleration: 0.597 g
The San Andreas Fault is Located Aproximately 44.4 km (27.6 mi) from the Site.

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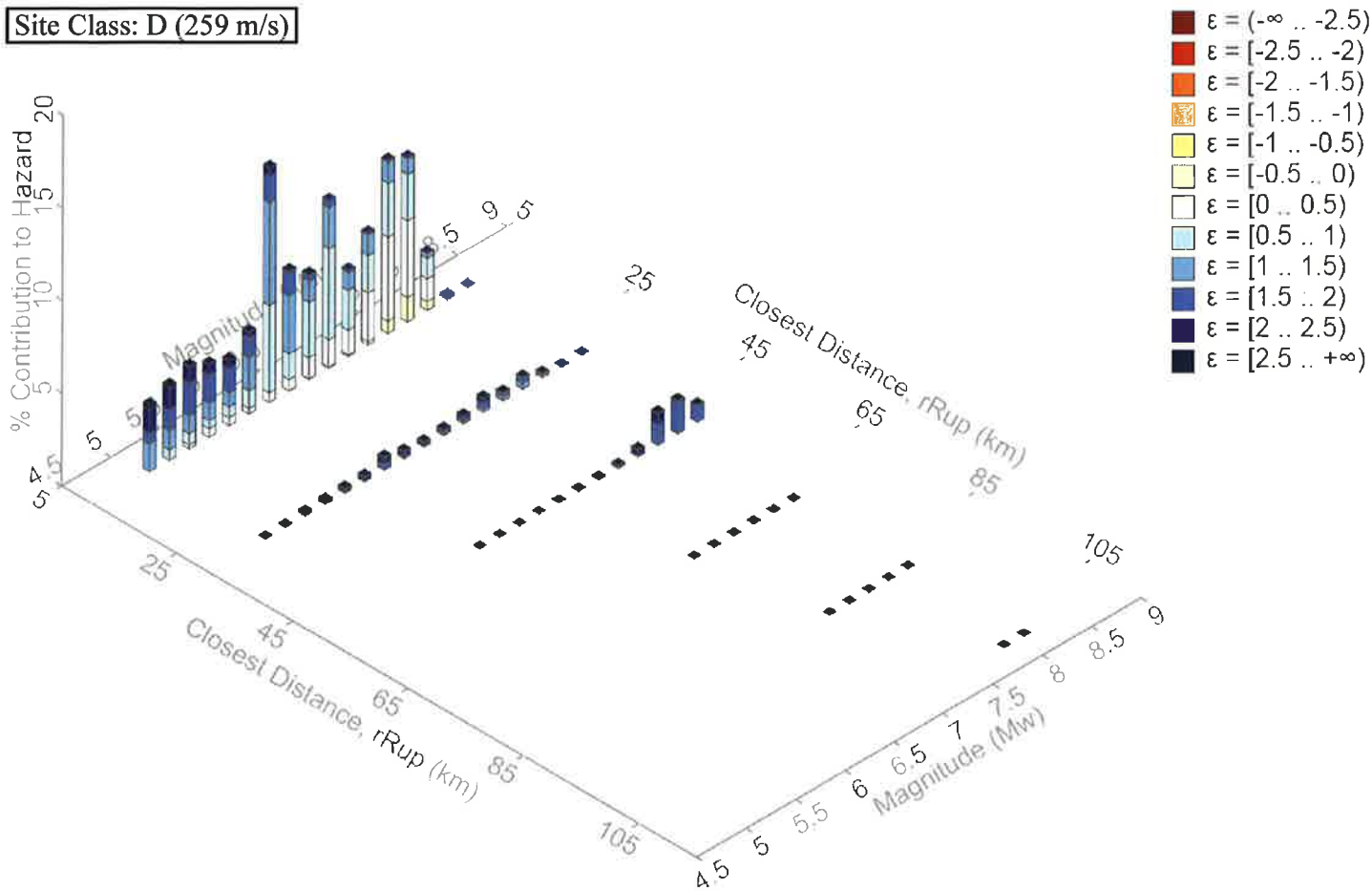
SEISMIC HAZARD DEAGGREGATION CHART
(Probability of Exceedance: 10% in 50 years)

BG: 23185 CLIENT: LANKERSHIM CROSSING, LLC

ENGINEER: JHP

REFERENCE: USGS, 2019, Earthquake Hazards Program, Beta - Unified Hazard Tool, Seismic Hazard Deaggregation, Conterminous U.S. 2014 (update) (v4.2.0) Edition, https://earthquake.usgs.gov/hazards/interactive/index.php.

Site Class: D (259 m/s)



Summary statistics for, Deaggregation: Total

Deaggregation targets

Return period: 475 yrs
Exceedance rate: 0.0021052632 yr⁻¹
PGA ground motion: 0.55006282 g

Recovered targets

Return period: 512.48056 yrs
Exceedance rate: 0.0019512935 yr⁻¹

Totals

Binned: 100 %
Residual: 0 %
Trace: 0.13 %

Mode (largest m-r bin)

m: 6.3
r: 9.7 km
ε₀: 1.1 σ
Contribution: 12.65 %

Mode (largest m-r-ε₀ bin)

m: 6.29
r: 8.97 km
ε₀: 1.16 σ
Contribution: 5.53 %

Discretization

r: min = 0.0, max = 1000.0, Δ = 20.0 km
m: min = 4.4, max = 9.4, Δ = 0.2
ε: min = -3.0, max = 3.0, Δ = 0.5 σ

Site-Specific Ground Motion Analysis (Based on ASCE 7-16 Standard)

BG: 23185 Client: Lankershim Crossing, LLC Date: 3/23/20
Project Description: Proposed 7-Story Mixed-Use Building Engineer: RSB

Ss (0.2s) =	2.003	Latitude:	34.2149				Periods (seconds):		80% of Sections. 11.4.3 & 11.4.4 of ASCE 7-16	RESULTS Design Values ASCE 7-16 (Section 21.4)
S1 (1s) =	0.685	Longitude:	-118.3868				T_o =	0.171		
Fa =	1.00	Site Class:	D				T_s =	0.855		
Fv =	2.50						T_L =	8		
SMs =	2.003		Fig. 22-18A	S_{MS}=	1.442	<			1.602	1.602
SM1 =	1.713	C_{RS}:	0.913	S_{M1}=	1.370	=			1.370	1.370
SDs =	1.335		Fig. 22-19A	S_{DS}=	0.961	<			1.068	1.068
SD1 =	1.142	C_{R1}:	0.902	S_{D1}=	0.913	=			0.913	0.913

Fundamental Period	Risk Coefficient C_R (Method 1, Section 21.2.1.1, ASCE 7-16)	Probabilistic MCE_R Seismic Response Spectrum (EZ-Frisk & Section 21.2.1.1)	Probabilistic Seismic Response Spectrum (ASCE 7-16, Section 11.4.6)	84th Percentile of Deterministic MCE_R Seismic Response Spectrum (ASCE 7-16)	Deterministic Lower Limit on MCE_R Response Spectrum (ASCE 7-16, Section 21.2.2)	Site Specific MCE_R Spectral Response Acceleration (ASCE 7-16, Section 21.2.3)	80% of Probabilistic Response Spectrum (ASCE 7-16, Section 21.3)	Design Response Spectrum (ASCE 7-16, Section 21.3)
T (sec)		Sa (g)	Sa (g)	Sa (g)	Sa (g)	Sa (g)	Sa (g)	Sa (g)
0.0	0.913	0.9079	0.5341	0.6303	0.600	0.630	0.427	0.427
0.1	0.913	1.4645	1.0027	0.9651	1.050	1.050	0.802	0.802
0.2	0.913	1.9200	1.3353	1.2600	1.500	1.500	1.068	1.068
0.3	0.912	1.9363	1.3353	1.3430	1.500	1.500	1.068	1.068
0.4	0.910	1.8660	1.3353	1.3860	1.500	1.500	1.068	1.068
0.5	0.909	1.7823	1.3353	1.3820	1.500	1.500	1.068	1.068
0.6	0.908	1.6389	1.3353	1.3000	1.500	1.500	1.068	1.068
0.7	0.906	1.5314	1.3353	1.2320	1.500	1.500	1.068	1.068
0.8	0.905	1.4205	1.3353	1.1500	1.500	1.420	1.068	1.068
0.9	0.903	1.3099	1.2685	1.0640	1.500	1.310	1.015	1.015
1.0	0.902	1.2204	1.1417	0.9943	1.500	1.220	0.913	0.913
1.1	0.902	1.1248	1.0379	0.9126	1.364	1.125	0.830	0.830
1.2	0.902	1.0445	0.9514	0.8414	1.250	1.045	0.761	0.761
1.3	0.902	0.9760	0.8782	0.7788	1.154	0.976	0.703	0.703
1.4	0.902	0.9173	0.8155	0.7232	1.071	0.917	0.652	0.652
1.5	0.902	0.8572	0.7611	0.6733	1.000	0.857	0.609	0.609
1.6	0.902	0.7970	0.7135	0.6260	0.938	0.797	0.571	0.571
1.7	0.902	0.7455	0.6716	0.5840	0.882	0.746	0.537	0.537
1.8	0.902	0.7013	0.6343	0.5470	0.833	0.701	0.507	0.507
1.9	0.902	0.6632	0.6009	0.5144	0.789	0.663	0.481	0.481
2.0	0.902	0.6298	0.5708	0.4855	0.750	0.630	0.457	0.457
3.0	0.902	0.4039	0.3806	0.3026	0.500	0.404	0.304	0.304
4.0	0.902	0.2932	0.2854	0.2176	0.375	0.293	0.228	0.228
5.0	0.902	0.2362	0.2283	0.1644	0.300	0.236	0.183	0.183
6.0	0.902	0.1893	0.1903	0.1222	0.250	0.189	0.152	0.152
7.0	0.902	0.1557	0.1631	0.0941	0.214	0.156	0.130	0.130
8.0	0.902	0.1288	0.1427	0.0742	0.188	0.129	0.114	0.114

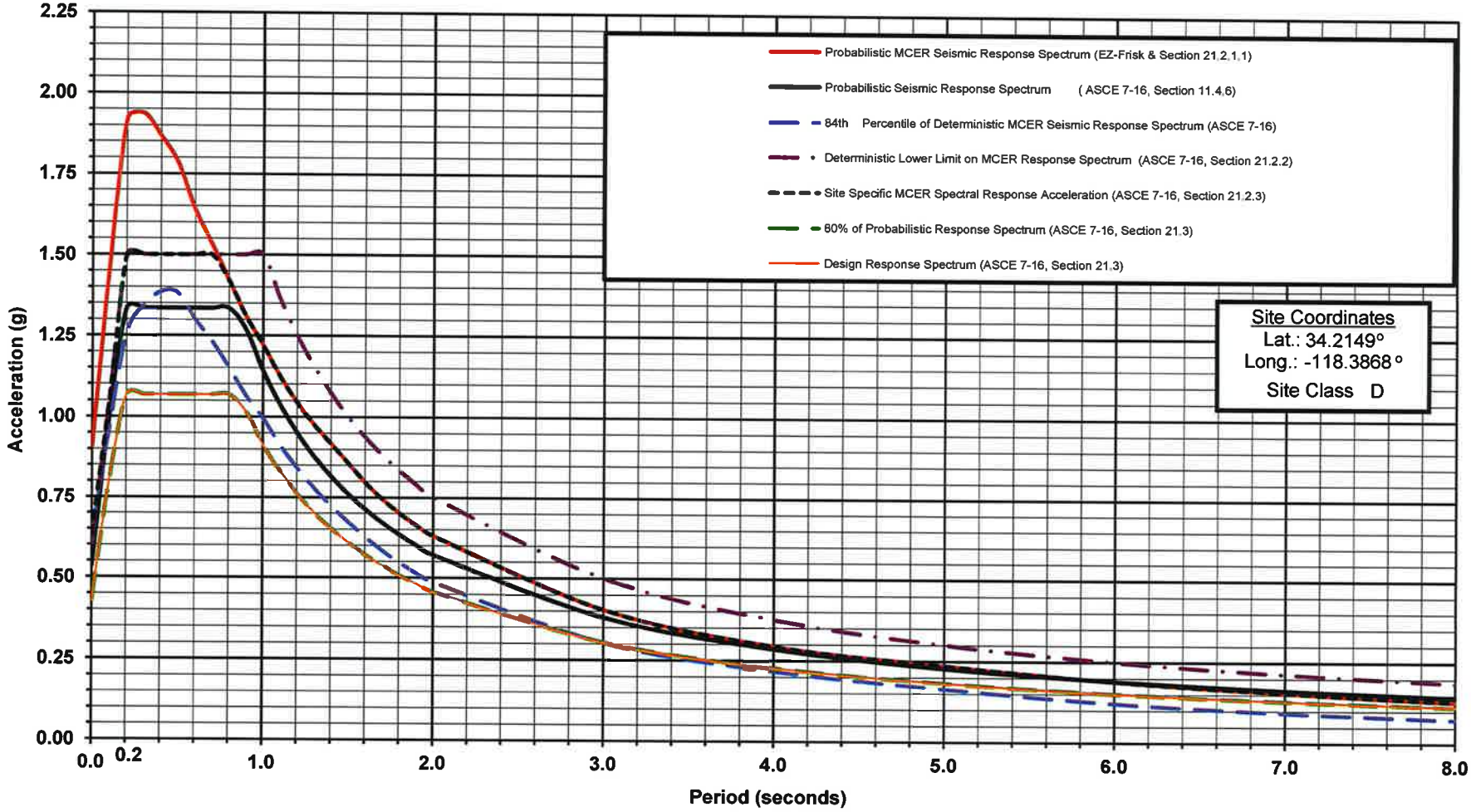
* The Probabilistic and Deterministic Seismic Response Spectra are Based on the Maximum Rotated Component (MRC) of Ground Motion.

References:

- American Society of Civil Engineers (ASCE), 2016, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, Standard ASCE/SEI 7-16, Chapter 21.

- Division of the State Architect (DSA), 2009, Use of the Next Generation Attenuation (NGA) Relations, State of California, Department of General Services, DSA Bulletin 09-01, Effective March 1, 2009.

SEISMIC RESPONSE SPECTRA



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SITE-SPECIFIC SEISMIC RESPONSE SPECTRA

Proposed 7-Story Mixed-Use Building

BG: 23185 Client: Lankershim Crossing, LLC

Engineer: RSB Date: March 23, 2020

P:\23000 - 23999\23185 Lankershim Crossing_No Ho\Engineering\23185 Ground Motion Analysis 0.84 Percentile_ASCE 7-16

In-Situ Percolation Test Results - Falling Head Method

Calculation Sheet #: 1

BG No.: 23185
Client: Lankershim Crossing, LLC
Project Name: Proposed 7-Story Mixed-Used Building over One Subterranean Level

Date Excavated: 1/30/2020
Date Tested: 1/30/2020
Tested by: JHP

Input Data:

Boring No.	Date of Presoak	Time of Presoak	Top of Perforation Depth (ft)	Perc Hole Depth (ft)	Approx. Hole Diam. (in)	Pipe ID (in)
B1*	1/30/20	9:26 AM	10	40	8	2

Soil Distribution
0 - 7.5 ft: Poorly Graded Sand (SP)
7.5 - 15 ft: Well Graded Sand (SW)
15 - 20 ft: Silty Sand (SM)
20 - 25 ft: Poorly Graded Sand (SP)
25 - 30 ft: Well Graded Sand (SW)
30 - 40 ft: Sand with Silt (SP-SM)

Falling Head Percolation Test Data and Results:

Test Number	Initial Time of Reading	Final Time of Reading	Elapsed Time (min.)	Initial Water Depth d_1, (ft)	Surface Area (sq-ft)	Final Water Depth (ft)	Water Level Drop Δd, (ft)	Initial Vol. of Water (cu-ft)	Final Vol. of Water (cu-ft)	Vol. of Water Discharge (cu-ft)	Infiltration Rate (in./hr.)
1	9:45:00	9:55:00	10	36.0	75.7	2.5	33.5	12.6	0.9	11.7	11.12
2	9:56:00	10:06:00	10	36.0	75.7	3.0	33.0	12.6	1.0	11.5	10.95
3	10:41:00	10:51:00	10	33.0	69.5	3.5	29.5	11.5	1.2	10.3	10.67
4	10:51:00	11:01:00	10	32.0	67.4	3.5	28.5	11.2	1.2	9.9	10.63
5	12:11:00	12:21:00	10	33.0	69.5	4.0	29.0	11.5	1.4	10.1	10.49
6	12:22:00	12:32:00	10	32.0	67.4	3.9	28.2	11.2	1.3	9.8	10.50
7	12:34:00	12:44:00	10	32.0	67.4	3.9	28.2	11.2	1.3	9.8	10.50
8	12:45:00	12:55:00	10	32.0	67.4	3.9	28.2	11.2	1.3	9.8	10.50
										Calculated Infiltration Rate (in/hr) =	**10.5**

*** See Site Plan for boring location.**

Reference: County of Los Angeles, 2017, Administrative Manual, Guidelines for Geotechnical Investigation and Reporting, Low Impact Development Stormwater Infiltration, Department of Public Works, GS200.2, dated June 30, 2017.

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RETAINING WALL CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#2a**
Cantilevered Retaining Wall, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED CANTILEVERED RETAINING WALL. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	RETAINING WALL
Type	CANTILEVERED
Retained Height, H	14 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	see below
General Backslope Condition*	level
Loading	STATIC
Calculation Safety Factor, FS	1.5

* Critical wedge 'sees' only portion of regional backslope

CALCULATION OUTPUT

Trial Wedges Analyzed, Initial Search Grid	1371 trials
Trial Wedges Analyzed, Secondary Search Window	324 trials
Critical Failure Angle, α	53.2 degrees
Area of Critical Wedge	73.1 square feet
Length of Critical Failure Plane, L	16.4 feet
Depth of Critical Tension Crack	0.9 feet
Horizontal Upslope Distance to Critical Tension Crack	9.9 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	22.6 degrees
Factored Cohesion on Critical Slip Plane, C'	133.3 psf
Weight of Critical Wedge, W	9,142 pounds
External Surcharge on Critical Wedge, V	1,605 pounds
Static Gravitational Driving Force, W'	10,747 pounds
Mobilized Cohesive Force, C'L	2,191 pounds
Mobilized Frictional Force, R	10,443 pounds
Calculated Unbalanced Force, P	3,995 pounds
Calculated Horizontal Unbalanced Force, P_h	3,995 pounds
Calculated Equivalent Fluid Pressure	40.8 pcf

RECOMMENDED DESIGN PARAMETERS

Design Equivalent Fluid Pressure, EFP	43.0 pcf
Design Horizontal Force	4,214 pounds

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	14		
(0,14)	(0,14)			
(5,14)	(5,14)			Uniform Load: 300 psf
(15,14)	(15,14)			
(18,14)	(18,14)			
(20,14)	(20,14)			
(25,14)	(25,14)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CONCLUSIONS

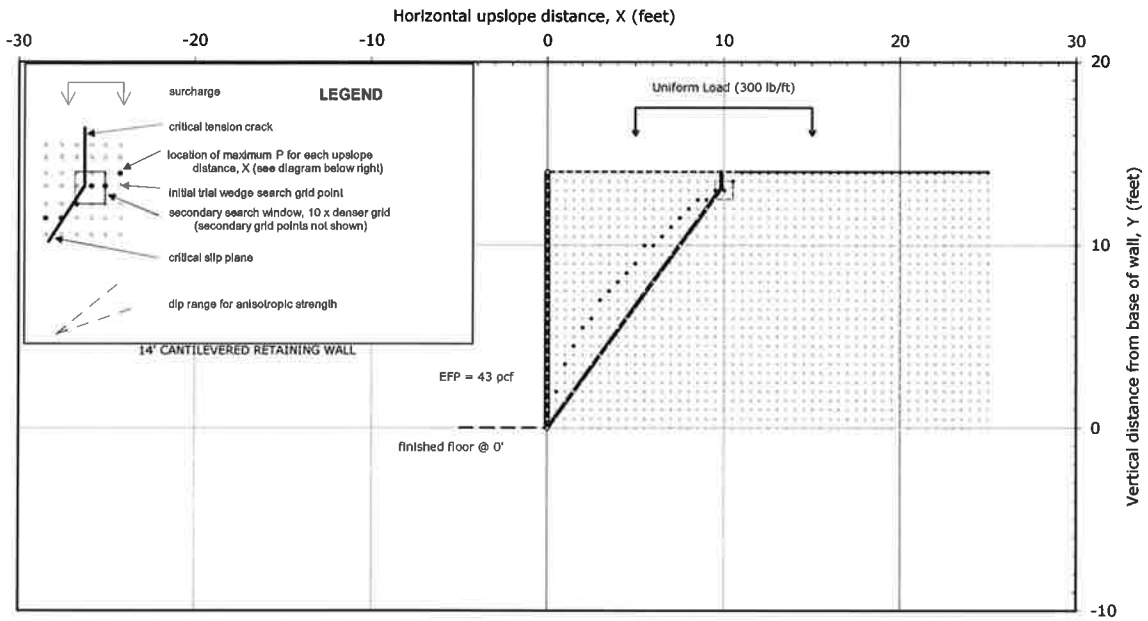
THE CALCULATION INDICATES THAT THE PROPOSED CANTILEVERED RETAINING WALL, WITH A RETAINED HEIGHT OF UP TO 14 FEET, MAY BE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE (EFP) OF 43 POUNDS PER CUBIC FOOT.

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RETAINING WALL CALCULATION

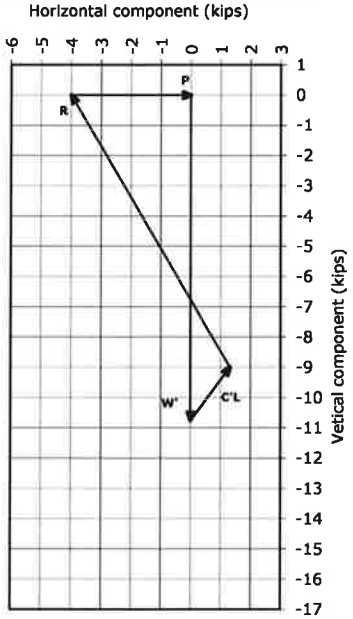
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#2b**
Cantilevered Retaining Wall, basement

Cross Section and Critical Active Wedge



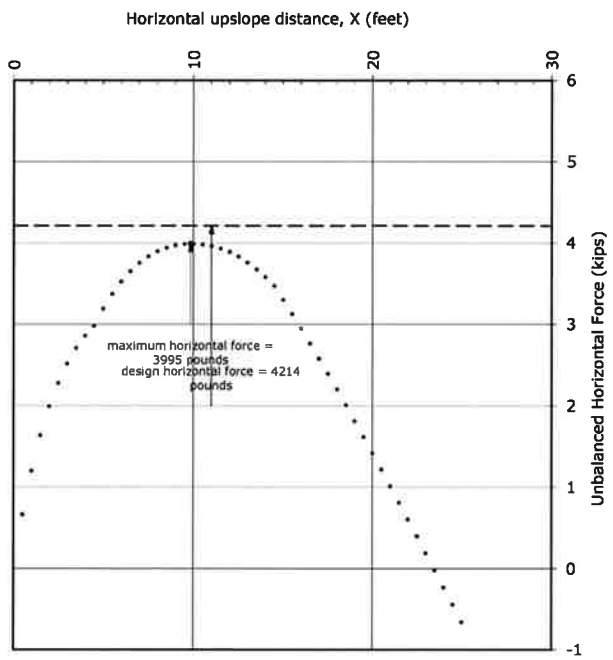
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the static (gravitational) driving force, W'; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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RETAINING WALL CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#2Sa**
Cantilevered Retaining Wall, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED CANTILEVERED RETAINING WALL. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE. USE THE PSEUDO-STATIC (MONONOBE-OKABE) METHOD FOR SEISMIC LOADING.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	RETAINING WALL
Type	CANTILEVERED
Retained Height, H	14 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	see below
General Backslope Condition*	level
Loading	SEISMIC
PGA_M	0.90 g
Pseudostatic Coefficients:	
horizontal , K_h***	0.30 g
vertical, K_v****	0.00 g
Calculation Safety Factor, FS	1

* Critical wedge 'sees' only portion of regional backslope

*** Calculated using methodology of Abrahamson and Silva (1986)
**** Kv > 0 indicates downward acceleration and upward inertial force

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	14		
(0,14)	(0,14)			
(5,14)	(5,14)			Uniform Load: 300 psf
(15,14)	(15,14)			
(18,14)	(18,14)			
(20,14)	(20,14)			
(25,14)	(25,14)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CALCULATION OUTPUT

Use Critical Trial Wedge From Static Case	
Critical Failure Angle, α	53.2 degrees
Area of Critical Wedge	73.1 square feet
Length of Critical Failure Plane, L	16.4 feet
Depth of Critical Tension Crack	0.9 feet
Horizontal Upslope Distance to Critical Tension Crack	9.9 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	32.0 degrees
Factored Cohesion on Critical Slip Plane, C'	200.0 psf
Weight of Critical Wedge, W	9,142 pounds
External Surcharge on Critical Wedge, V	1,605 pounds
Pseudo-Static (Gravitational + Dynamic) Driving Force, Wd	11,223 pounds
Mobilized Cohesive Force, C'L	3,286 pounds
Mobilized Frictional Force, R	8,704 pounds
Calculated Unbalanced Force, P	4,576 pounds
Calculated Horizontal Unbalanced Force, P_h	4,576 pounds

RECOMMENDED DESIGN PARAMETERS

Calculated Pseudo-Static Horizontal Force	4,576 pounds
Recommended Static Horizontal Force from sheet 2a	4,214 pounds
Calculated Seismic Force ***	362 pounds

*** the seismic force should be applied at 0.6H, where H is the retained height

CONCLUSIONS

THE CALCULATED SEISMIC FORCE ON THE WALL IS THE DIFFERENCE BETWEEN THE PSEUDO-STATIC AND STATIC FORCE, AND IS 362 POUNDS. THE WALL SHOULD BE DESIGNED FOR THIS FORCE IN ADDITION TO THE RECOMMENDED DESIGN PARAMETERS ON SHEET 2A. THE SEISMIC FORCE MAY BE APPLIED AT 0.3H ABOVE THE BASE, WHERE H IS THE RETAINED HEIGHT.

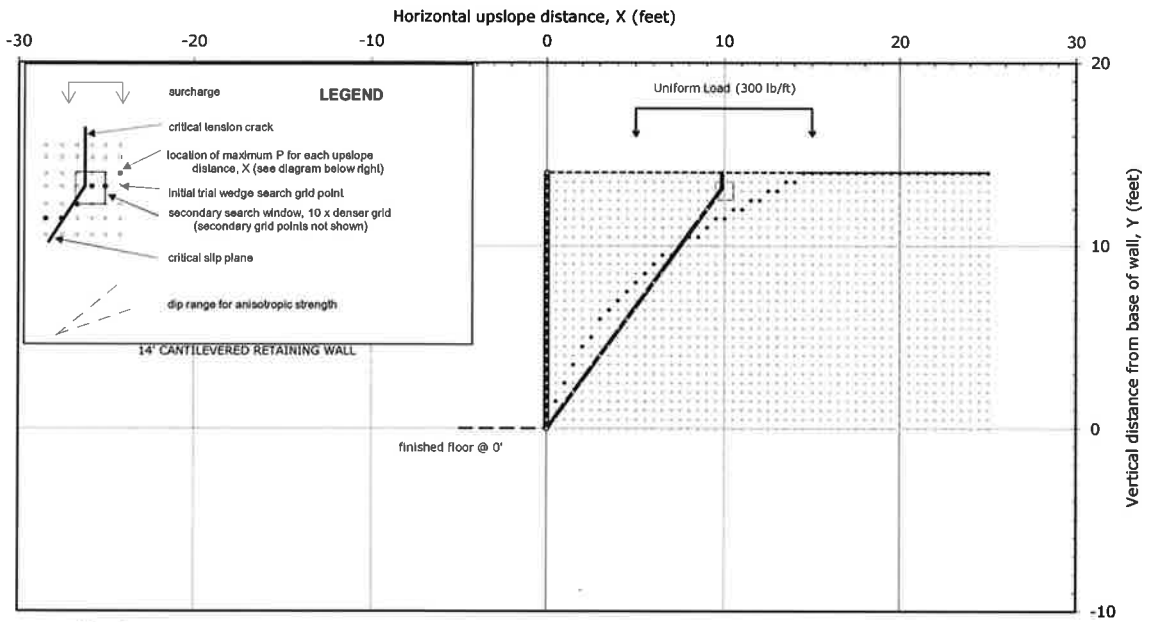
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RETAINING WALL CALCULATION

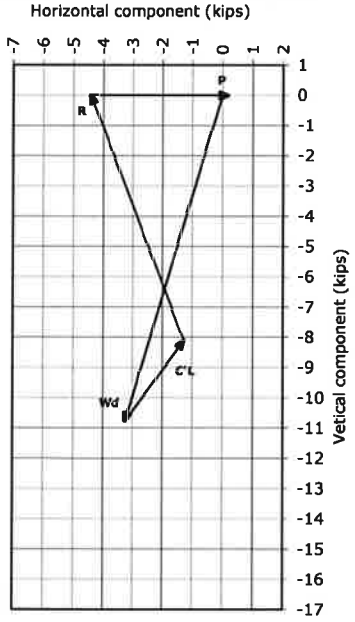
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#2Sb**
Cantilevered Retaining Wall, basement

Cross Section and Critical Active Wedge



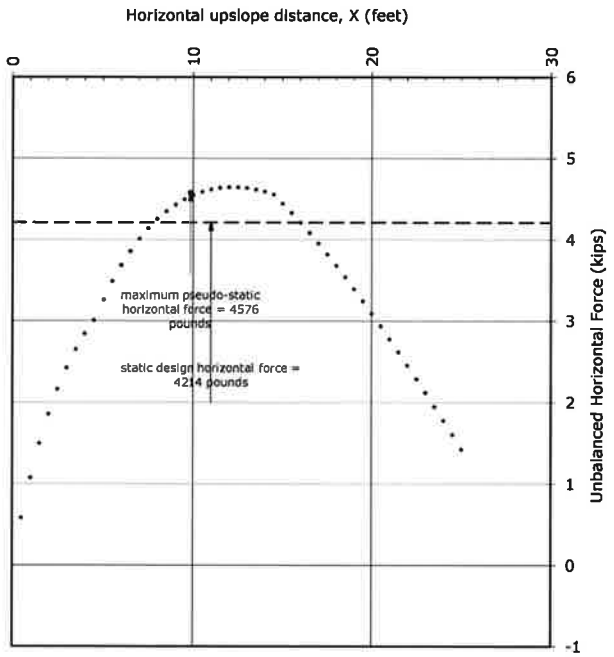
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the pseudo-static (gravitational and dynamic) driving force, Wd; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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RETAINING WALL CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#3a**
Restrained Retaining Wall, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED RESTRAINED RETAINING WALL. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	RETAINING WALL
Type	RESTRAINED
Retained Height, H	14 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	NO
General Backslope Condition*	level
Loading	STATIC
Calculation Safety Factor, FS	1.5

* Critical wedge 'sees' only portion of regional backslope

CALCULATION OUTPUT

Trial Wedges Analyzed, Initial Search Grid	1371 trials
Trial Wedges Analyzed, Secondary Search Window	324 trials
Critical Failure Angle, α	56.3 degrees
Area of Critical Wedge	61.9 square feet
Length of Critical Failure Plane, L	13.0 feet
Depth of Critical Tension Crack	3.2 feet
Horizontal Upslope Distance to Critical Tension Crack	7.2 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	22.6 degrees
Factored Cohesion on Critical Slip Plane, C'	133.3 psf
Weight of Critical Wedge, W	7,740 pounds
External Surcharge on Critical Wedge, V	0 pounds
Static Gravitational Driving Force, W'	7,740 pounds
Mobilized Cohesive Force, C'L	1,731 pounds
Mobilized Frictional Force, R	7,572 pounds
Calculated Unbalanced Force, P	3,241 pounds
Calculated Horizontal Unbalanced Force, P_h	3,241 pounds
Calculated Trapezoidal Design Pressure *	20.7 H psf
Calculated At-Rest Equivalent Fluid Pressure **	58.8 pcf
Calculated At-Rest Trapezoidal Earth Pressure *	36.7 H psf

RECOMMENDED DESIGN PARAMETERS

Trapezoidal Design Pressure, TDP*	37 H psf
Design Horizontal Force	5,802 pounds

* H is restrained height, see report for diagram of trapezoidal pressure distribution
** at-rest equivalent fluid pressure is calculated as: γ (1- sin(φ))

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	14		
(0,14)	(0,14)			
(5,14)	(5,14)			
(15,14)	(15,14)			
(5,14)	(5,14)			
(10,14)	(10,14)			
(25,14)	(25,14)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CONCLUSIONS

THE CALCULATION INDICATES THAT THE PROPOSED RESTRAINED RETAINING WALL, WITH A RETAINED HEIGHT OF UP TO 14 FEET, MAY BE DESIGNED FOR A TRAPEZOIDAL DESIGN PRESSURE (TDP) OF 37 H POUNDS PER SQUARE FOOT, WHERE H IS THE RETAINED HEIGHT. SEE REPORT FOR DIAGRAM OF TRAPEZOIDAL PRESSURE DISTRIBUTION.

THE STATIC DESIGN IS GOVERNED BY THE AT-REST CONDITION.

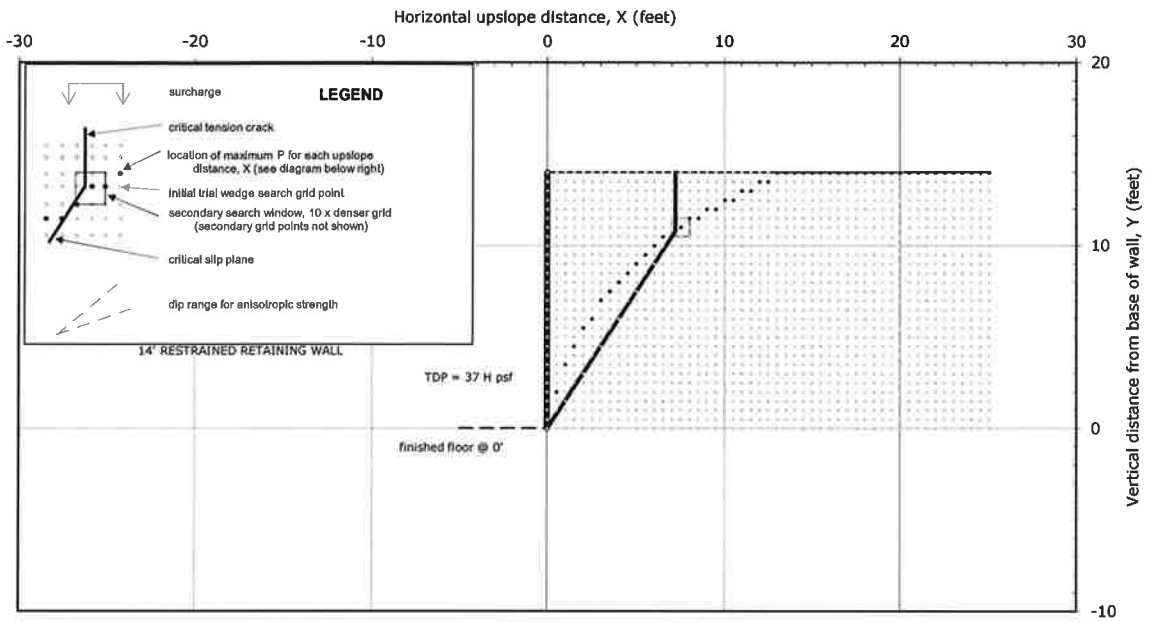
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RETAINING WALL CALCULATION

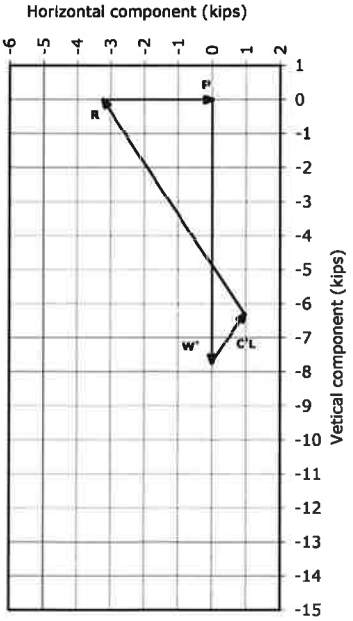
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#3b**
Restrained Retaining Wall, basement

Cross Section and Critical Active Wedge



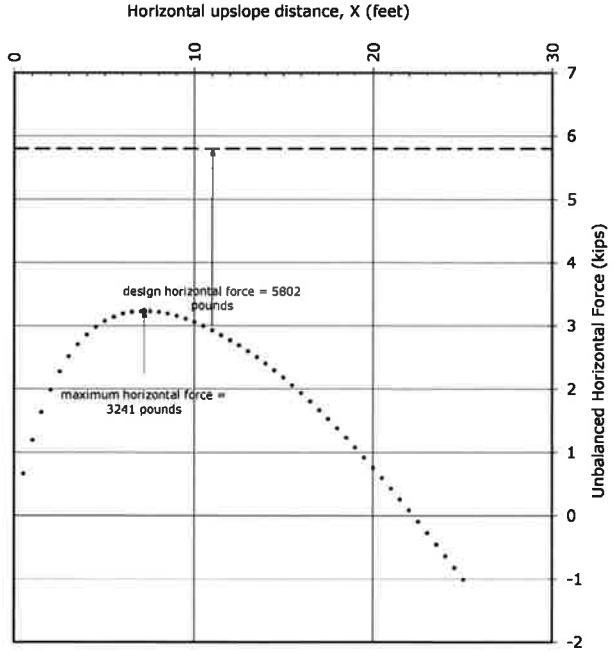
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the static (gravitational) driving force, W'; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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RETAINING WALL CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#3Sa**
Restrained Retaining Wall, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED RESTRAINED RETAINING WALL. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE. USE THE PSEUDO-STATIC (MONONOBE-OKABE) METHOD FOR SEISMIC LOADING.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	RETAINING WALL
Type	RESTRAINED
Retained Height, H	14 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	see below
General Backslope Condition*	level
Loading	SEISMIC
PGA_M	0.90 g

Pseudostatic Coefficients:

horizontal , K_h***	0.30 g
vertical, K_v****	0.00 g
Calculation Safety Factor, FS	1

* Critical wedge 'sees' only portion of regional backslope

*** Calculated using methodology of Abrahamson and Silva (1986)
**** Kv > 0 indicates downward acceleration and upward inertial force

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	14		
(0,14)	(0,14)			
(5,14)	(5,14)			Uniform Load: 300 psf
(15,14)	(15,14)			
(5,14)	(5,14)			
(10,14)	(10,14)			
(25,14)	(25,14)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CALCULATION OUTPUT

Use Critical Trial Wedge From Static Case	
Critical Failure Angle, α	53.7 degrees
Area of Critical Wedge	71.5 square feet
Length of Critical Failure Plane, L	16.1 feet
Depth of Critical Tension Crack	1.1 feet
Horizontal Upslope Distance to Critical Tension Crack	9.5 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	32.0 degrees
Factored Cohesion on Critical Slip Plane, C'	200.0 psf
Weight of Critical Wedge, W	8,936 pounds
External Surcharge on Critical Wedge, V	1,500 pounds
Pseudo-Static (Gravitational + Dynamic) Driving Force, Wd	10,898 pounds
Mobilized Cohesive Force, C'L	3,212 pounds
Mobilized Frictional Force, R	8,447 pounds
Calculated Unbalanced Force, P	4,432 pounds
Calculated Horizontal Unbalanced Force, P_h	4,432 pounds

RECOMMENDED DESIGN PARAMETERS

Calculated Pseudo-Static Horizontal Force	4,432 pounds
Recommended Static Horizontal Force from sheet 3a	5,802 pounds

CONCLUSIONS

THE CALCULATED STATIC FORCE EXCEEDS THE CALCULATED PSEUDO-STATIC FORCE. THEREFORE, THE RECOMMENDED DESIGN PARAMETERS ON SHEET 3A ARE SUFFICIENT.

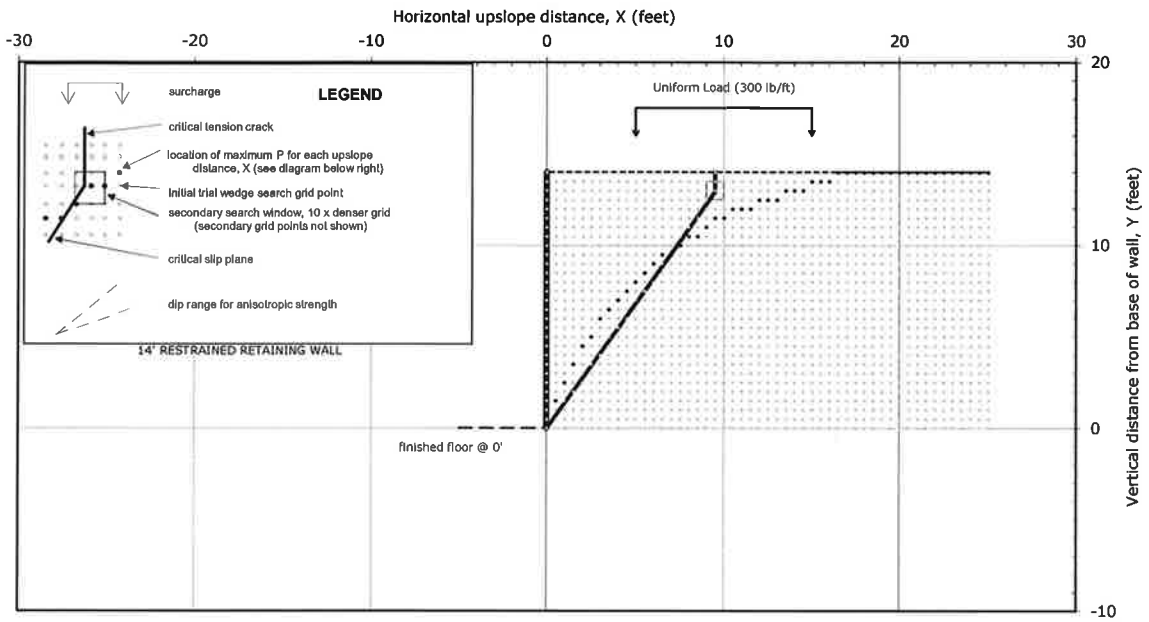
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RETAINING WALL CALCULATION

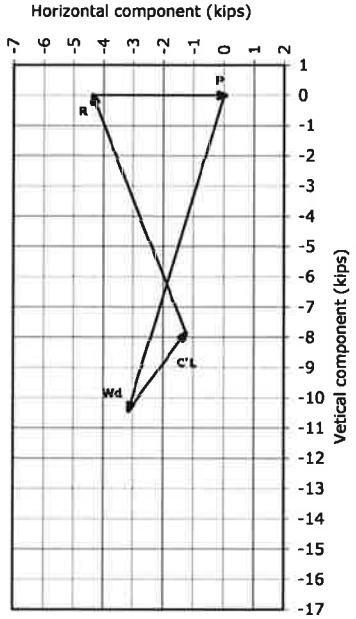
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#3Sb**
Restrained Retaining Wall, basement

Cross Section and Critical Active Wedge



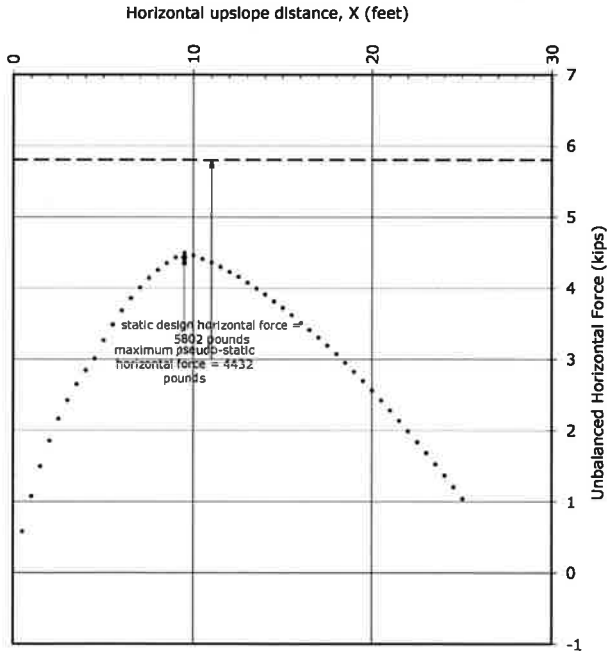
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the pseudo-static (gravitational and dynamic) driving force, Wd; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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RETAINING WALL CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#4Sa**
Restrained Retaining Wall, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED RESTRAINED RETAINING WALL. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE. USE THE PSEUDO-STATIC (MONONOBE-OKABE) METHOD FOR SEISMIC LOADING.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	RETAINING WALL
Type	RESTRAINED
Retained Height, H	14 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	see below
General Backslope Condition*	level
Loading	SEISMIC
PGA_M	0.90 g

Pseudostatic Coefficients:

horizontal , K_h***	0.30 g
vertical, K_v****	0.00 g
Calculation Safety Factor, FS	1

* Critical wedge 'sees' only portion of regional backslope

*** Calculated using methodology of Abrahamson and Silva (1986)
**** Kv > 0 indicates downward acceleration and upward inertial force

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	14		
(0,14)	(0,14)			
(1,14)	(1,14)			Line Load: 1200 psf
(2,14)	(2,14)			
(5,14)	(5,14)			
(10,14)	(10,14)			
(25,14)	(25,14)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CALCULATION OUTPUT

Use Critical Trial Wedge From Static Case	
Critical Failure Angle, α	60.8 degrees
Area of Critical Wedge	51.8 square feet
Length of Critical Failure Plane, L	12.3 feet
Depth of Critical Tension Crack	3.3 feet
Horizontal Upslope Distance to Critical Tension Crack	6.0 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	32.0 degrees
Factored Cohesion on Critical Slip Plane, C'	200.0 psf
Weight of Critical Wedge, W	6,469 pounds
External Surcharge on Critical Wedge, V	1,200 pounds
Pseudo-Static (Gravitational + Dynamic) Driving Force, Wd	8,009 pounds
Mobilized Cohesive Force, C'L	2,462 pounds
Mobilized Frictional Force, R	6,300 pounds
Calculated Unbalanced Force, P	4,296 pounds
Calculated Horizontal Unbalanced Force, P_h	4,296 pounds

RECOMMENDED DESIGN PARAMETERS

Calculated Pseudo-Static Horizontal Force	4,296 pounds
Recommended Static Horizontal Force from sheet 4a	5,802 pounds

CONCLUSIONS

THE CALCULATED STATIC FORCE EXCEEDS THE CALCULATED PSEUDO-STATIC FORCE. THEREFORE, THE RECOMMENDED DESIGN PARAMETERS ON SHEET 4A ARE SUFFICIENT.

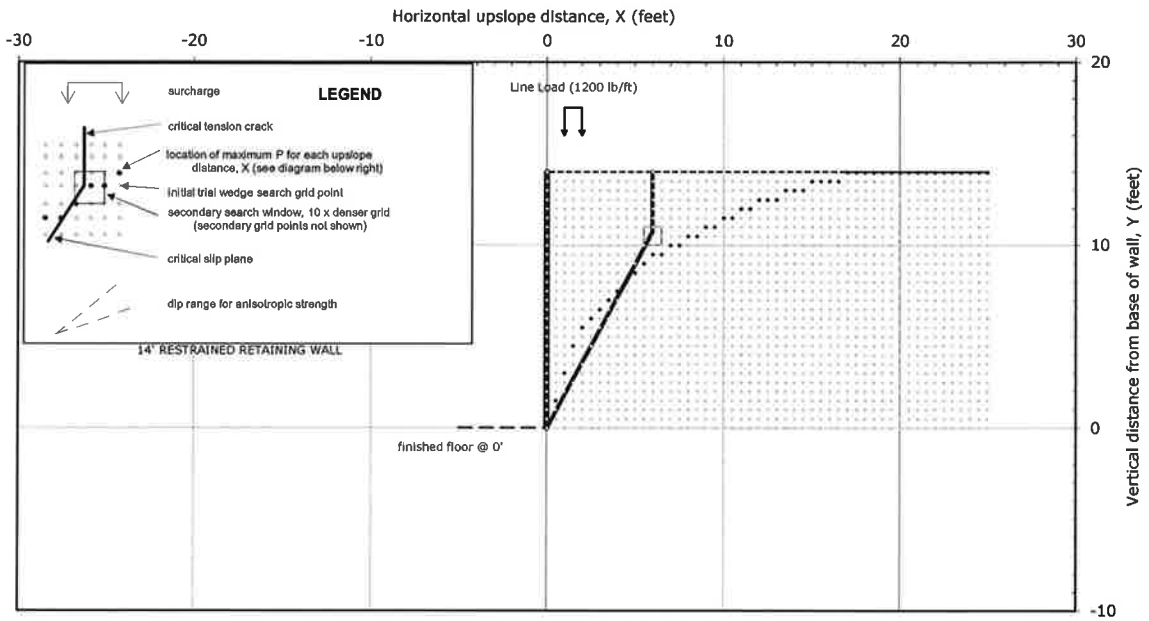
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RETAINING WALL CALCULATION

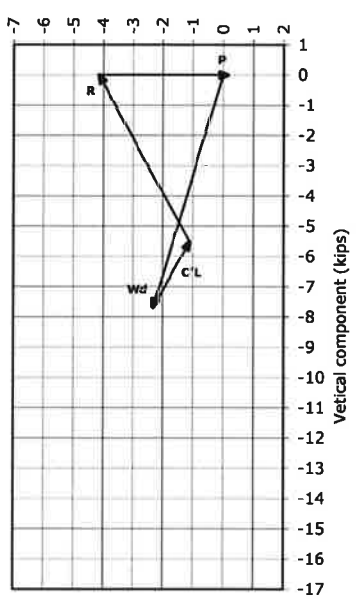
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#4Sb**
Restrained Retaining Wall, basement

Cross Section and Critical Active Wedge



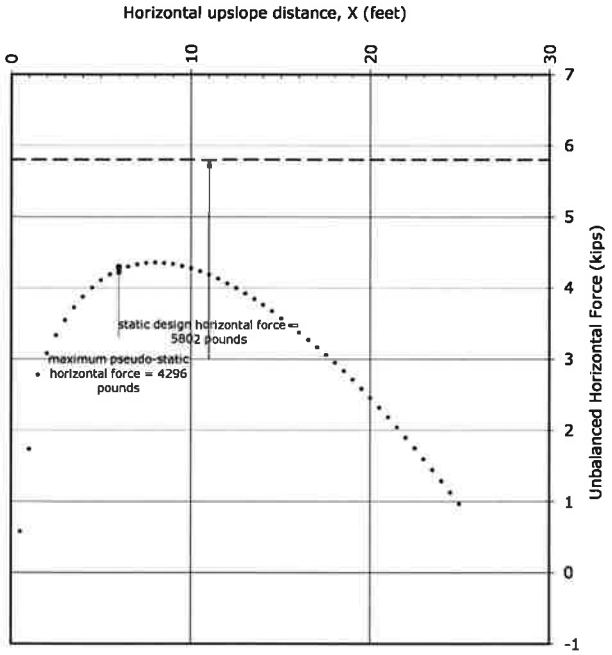
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the pseudo-static (gravitational and dynamic) driving force, Wd; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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SHORING PILE CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#5a**
Cantilevered Shoring Pile, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED CANTILEVERED SHORING PILE. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	SHORING PILE
Type	CANTILEVERED
Retained Height, H	16 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	NO
General Backslope Condition*	level
Loading	STATIC
Calculation Safety Factor, FS	1.25

* Critical wedge 'sees' only portion of regional backslope

CALCULATION OUTPUT

Trial Wedges Analyzed, Initial Search Grid	1575 trials
Trial Wedges Analyzed, Secondary Search Window	324 trials
Critical Failure Angle, α	58.4 degrees
Area of Critical Wedge	73.5 square feet
Length of Critical Failure Plane, L	13.9 feet
Depth of Critical Tension Crack	4.2 feet
Horizontal Upslope Distance to Critical Tension Crack	7.3 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	26.6 degrees
Factored Cohesion on Critical Slip Plane, C'	160.0 psf
Weight of Critical Wedge, W	9,193 pounds
External Surcharge on Critical Wedge, V	0 pounds
Static Gravitational Driving Force, W'	9,193 pounds
Mobilized Cohesive Force, C'L	2,227 pounds
Mobilized Frictional Force, R	8,587 pounds
Calculated Unbalanced Force, P	3,358 pounds
Calculated Horizontal Unbalanced Force, P_h	3,358 pounds
Calculated Equivalent Fluid Pressure	26.2 pcf

RECOMMENDED DESIGN PARAMETERS

Design Equivalent Fluid Pressure, EFP	30.0 pcf
Design Horizontal Force	3,840 pounds

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	16		
(0,16)	(0,16)			
(1,16)	(1,16)			
(2,16)	(2,16)			
(5,16)	(5,16)			
(10,16)	(10,16)			
(25,16)	(25,16)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CONCLUSIONS

THE CALCULATION INDICATES THAT THE PROPOSED CANTILEVERED SHORING PILE, WITH A RETAINED HEIGHT OF UP TO 16 FEET, MAY BE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE (EFP) OF 30 POUNDS PER CUBIC FOOT. FOR PILES, THE PRESSURE SHOULD BE MULTIPLIED BY THE PILE SPACING.

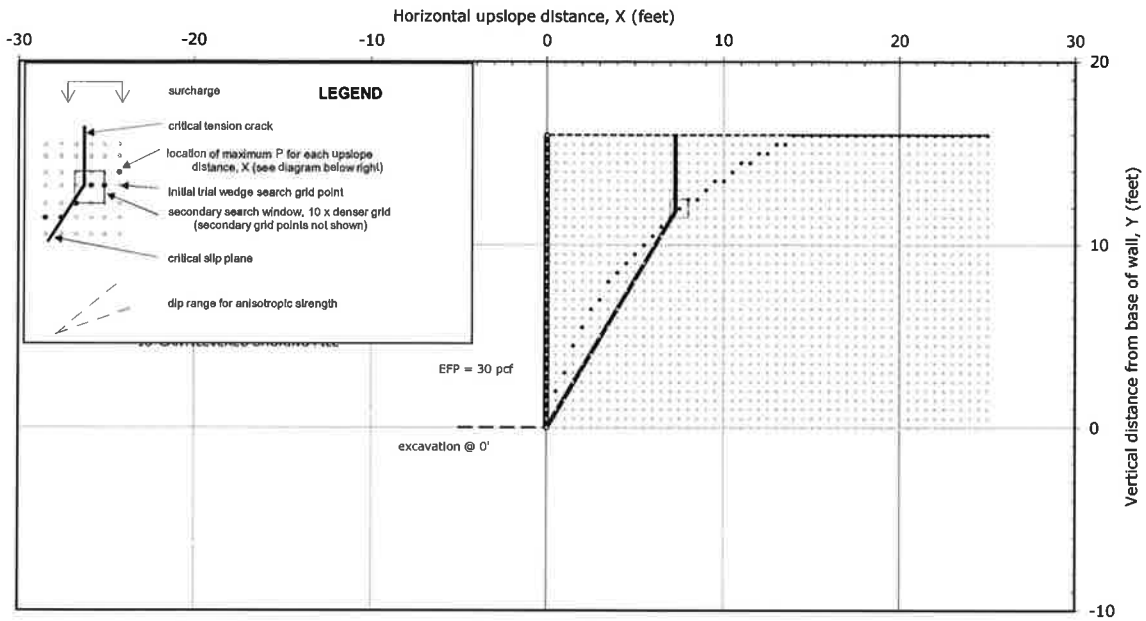
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SHORING PILE CALCULATION

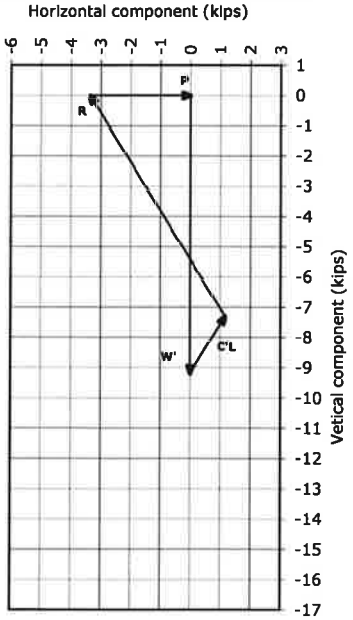
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#5b**
Cantilevered Shoring Pile, basement

Cross Section and Critical Active Wedge



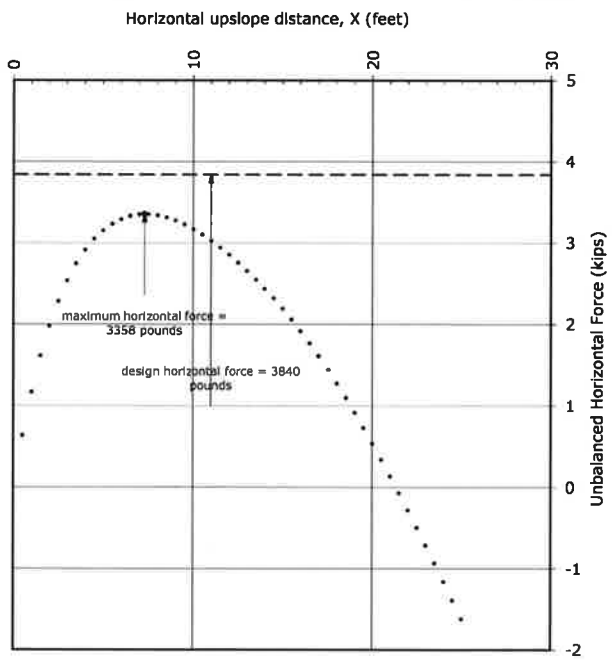
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the static (gravitational) driving force, W'; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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SHORING PILE CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#6a**
Cantilevered Shoring Pile, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED CANTILEVERED SHORING PILE. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	SHORING PILE
Type	CANTILEVERED
Retained Height, H	16 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	see below
General Backslope Condition*	level
Loading	STATIC
Calculation Safety Factor, FS	1.25

* Critical wedge 'sees' only portion of regional backslope

CALCULATION OUTPUT

Trial Wedges Analyzed, Initial Search Grid	1575 trials
Trial Wedges Analyzed, Secondary Search Window	324 trials
Critical Failure Angle, α	55.9 degrees
Area of Critical Wedge	85.6 square feet
Length of Critical Failure Plane, L	17.2 feet
Depth of Critical Tension Crack	1.8 feet
Horizontal Upslope Distance to Critical Tension Crack	9.7 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	26.6 degrees
Factored Cohesion on Critical Slip Plane, C'	160.0 psf
Weight of Critical Wedge, W	10,705 pounds
External Surcharge on Critical Wedge, V	1,545 pounds
Static Gravitational Driving Force, W'	12,250 pounds
Mobilized Cohesive Force, C'L	2,754 pounds
Mobilized Frictional Force, R	11,437 pounds
Calculated Unbalanced Force, P	4,059 pounds
Calculated Horizontal Unbalanced Force, P_h	4,059 pounds
Calculated Equivalent Fluid Pressure	31.7 pcf

RECOMMENDED DESIGN PARAMETERS

Design Equivalent Fluid Pressure, EFP	32.0 pcf
Design Horizontal Force	4,096 pounds

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	16		
(0,16)	(0,16)			
(5,16)	(5,16)			Uniform Load: 300 psf
(15,16)	(15,16)			
(18,16)	(18,16)			
(20,16)	(20,16)			
(25,16)	(25,16)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CONCLUSIONS

THE CALCULATION INDICATES THAT THE PROPOSED CANTILEVERED SHORING PILE, WITH A RETAINED HEIGHT OF UP TO 16 FEET, MAY BE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE (EFP) OF 32 POUNDS PER CUBIC FOOT. FOR PILES, THE PRESSURE SHOULD BE MULTIPLIED BY THE PILE SPACING.

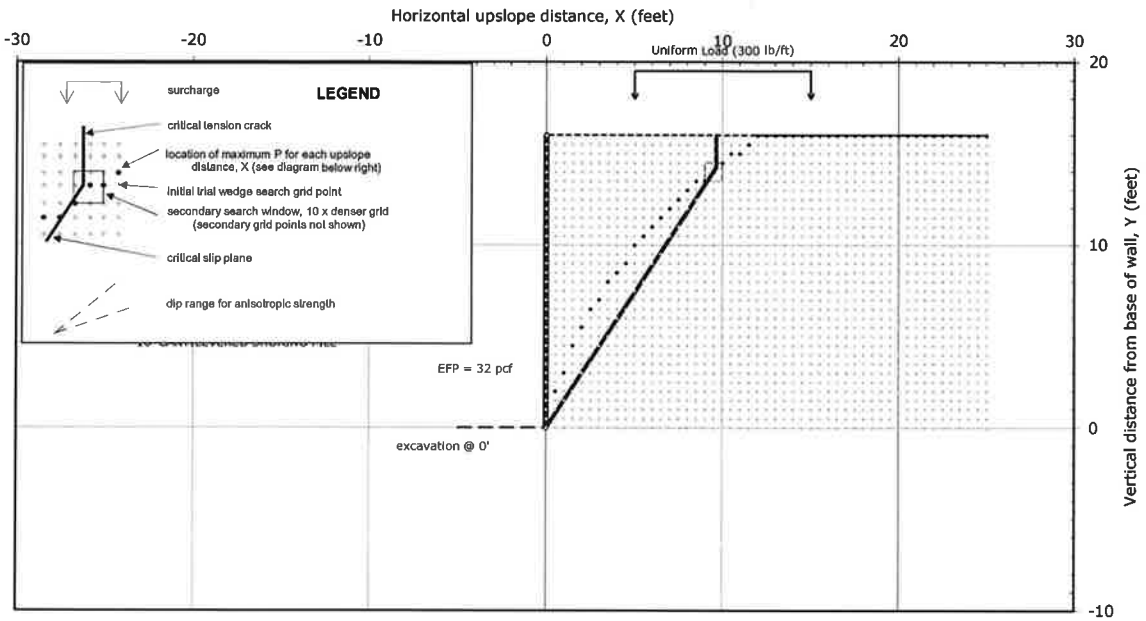
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SHORING PILE CALCULATION

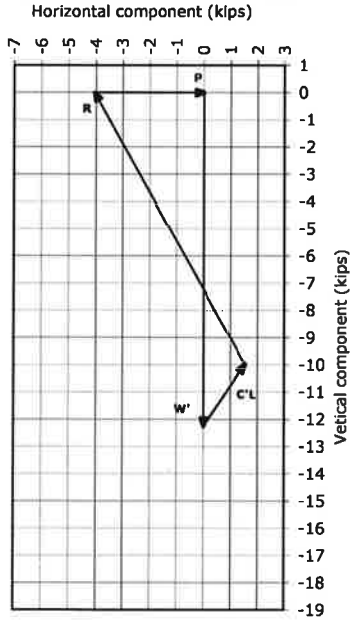
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#6b**
Cantilevered Shoring Pile, basement

Cross Section and Critical Active Wedge



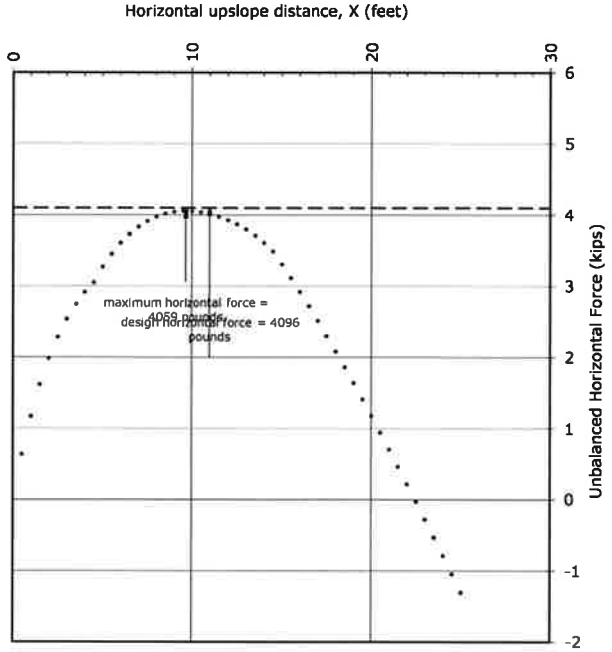
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the static (gravitational) driving force, W'; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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SHORING PILE CALCULATION

BG **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#7a**
Cantilevered Shoring Pile, basement

CALCULATE THE DESIGN PRESSURE FOR PROPOSED CANTILEVERED SHORING PILE. USE THE GENERAL TRIAL WEDGE METHOD*. APPLY THE SAFETY FACTOR TO THE COHESION AND PHI ANGLE. THE RETAINED HEIGHT, BACKSLOPE GEOMETRY, AND SURCHARGE CONDITIONS, ARE LISTED BELOW. ASSUME THE BACKFILL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

* FIND THE WEDGE, CHARACTERIZED BY A SINGLE STRAIGHT SLIP PLANE AND A VERTICAL TENSION CRACK, THAT MAXIMIZES THE UNBALANCED PRESSURE. MAKE NO ASSUMPTION ABOUT TENSION CRACK DEPTH. ALLOW ANY BACKSLOPE GEOMETRY AND SURCHARGE CONDITION. VARY X- AND Y-COORDINATES OF BOTTOM OF TENSION CRACK. USE PRIMARY GRID AND SECONDARY SEARCH WINDOW TO FOCUS SEARCH. USE METHODOLOGY DESCRIBED IN NAVFAC DESIGN MANUAL 7.02, 1986, PP. 59-70, AND US ARMY TECHNICAL REPORT ITL-92-11 (1992), P. 79 AND APPENDIX A.

CALCULATION INPUT

Earth Material	Alluvium
Shear Diagram	#1
Cohesion, Coh	200.0 psf
Phi Angle, φ	32.0 degrees
Density, γ	125.0 pcf
Anisotropic Strength Function	NO
Restraining Device	SHORING PILE
Type	CANTILEVERED
Retained Height, H	16 feet
Wall Friction Angle, δ	0 degrees
External Surcharge	see below
General Backslope Condition*	level
Loading	STATIC
Calculation Safety Factor, FS	1.25

* Critical wedge 'sees' only portion of regional backslope

CALCULATION OUTPUT

Trial Wedges Analyzed, Initial Search Grid	1575 trials
Trial Wedges Analyzed, Secondary Search Window	324 trials
Critical Failure Angle, α	61.5 degrees
Area of Critical Wedge	64.6 square feet
Length of Critical Failure Plane, L	13.4 feet
Depth of Critical Tension Crack	4.2 feet
Horizontal Upslope Distance to Critical Tension Crack	6.4 feet
Effective Backslope on Critical Wedge, β_{eff}	0.0 degrees
Factored Phi Angle on Slip Plane, φ'	26.6 degrees
Factored Cohesion on Critical Slip Plane, C'	160.0 psf
Weight of Critical Wedge, W	8,080 pounds
External Surcharge on Critical Wedge, V	1,200 pounds
Static Gravitational Driving Force, W'	9,280 pounds
Mobilized Cohesive Force, C'L	2,148 pounds
Mobilized Frictional Force, R	9,020 pounds
Calculated Unbalanced Force, P	4,145 pounds
Calculated Horizontal Unbalanced Force, P_h	4,145 pounds
Calculated Equivalent Fluid Pressure	32.4 pcf

RECOMMENDED DESIGN PARAMETERS

Design Equivalent Fluid Pressure, EFP	33.0 pcf
Design Horizontal Force	4,224 pounds

BACKSLOPE GEOMETRY AND SURCHARGE CONDITIONS*

(dist , elev)	(X , Y)	H (ft)	β (deg)	surcharge
(0,0)	(0,0)	16		
(0,16)	(0,16)			
(1,16)	(1,16)			Line Load: 1200 psf
(2,16)	(2,16)			
(18,16)	(18,16)			
(20,16)	(20,16)			
(25,16)	(25,16)			

* X is the upslope distance from the wall; Y is the vertical distance above the base of the wall; H is wall height; β is backslope. H, β, and surcharge apply to section between two coordinates. Only first 20 coordinates are shown.

CONCLUSIONS

THE CALCULATION INDICATES THAT THE PROPOSED CANTILEVERED SHORING PILE, WITH A RETAINED HEIGHT OF UP TO 16 FEET, MAY BE DESIGNED FOR AN EQUIVALENT FLUID PRESSURE (EFP) OF 33 POUNDS PER CUBIC FOOT. FOR PILES, THE PRESSURE SHOULD BE MULTIPLIED BY THE PILE SPACING.

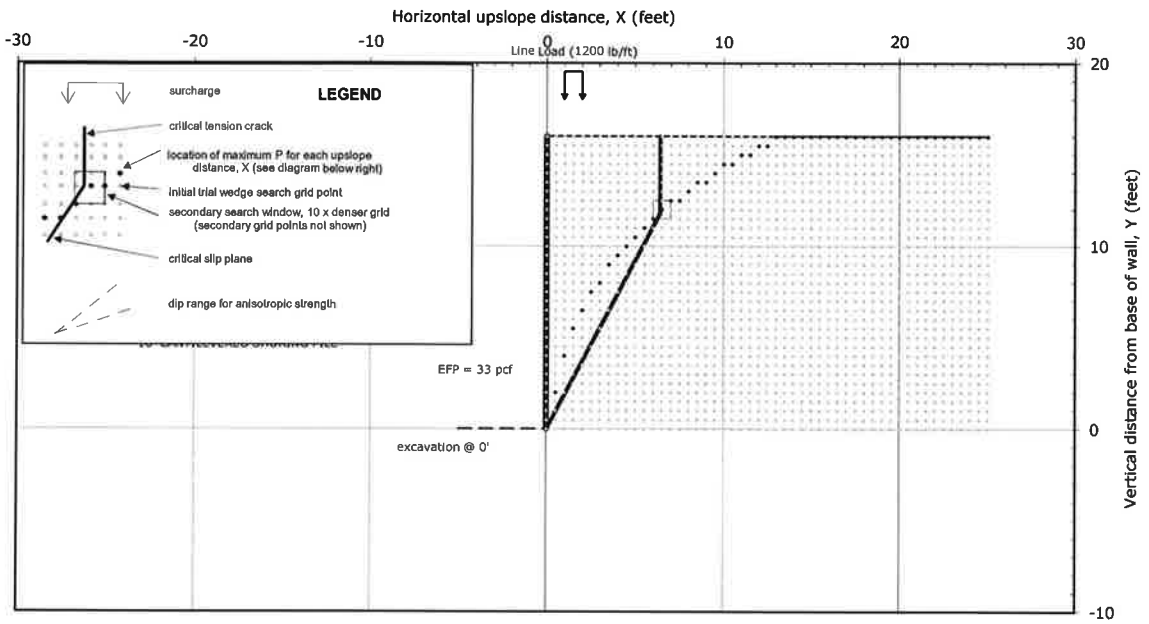
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tel 818.549.9959 fax 818.543.3747

SHORING PILE CALCULATION

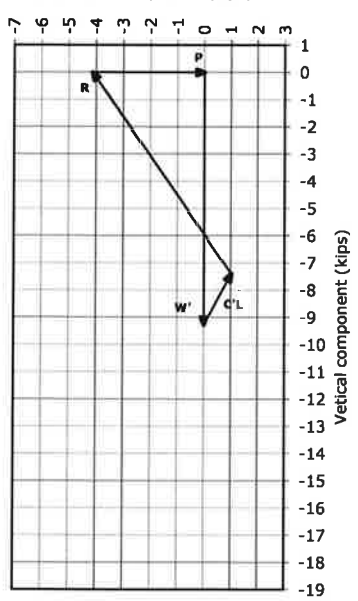
BG: **23185** CLIENT: **Lankershim Crossing, LLC**
CONSULTANT: **JHP**
SHEET: **#7b**
Cantilevered Shoring Pile, basement

Cross Section and Critical Active Wedge



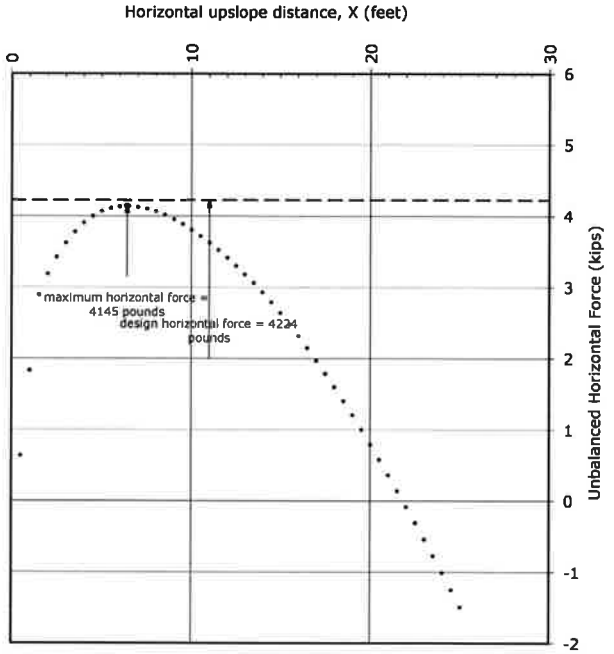
The cross section shows the surface geometry; surcharges; the range of dip for any defined anisotropic strength function; the critical trial wedge; the initial search grid; and the secondary search window. Each grid point defines the upslope coordinate of the slip plane and bottom coordinate of tension crack for a trial wedge. For each for upslope distance, X, the grid point for which the horizontal unbalanced pressure, Ph, is maximum is shown in black. The critical wedge has the maximum horizontal unbalanced pressure of all trial wedges.

Critical Wedge, Force Polygon



The polygon shows the static (gravitational) driving force, W'; the mobilized cohesive force, C'L; the mobilized frictional force, R; and the unbalanced pressure, P, for the critical wedge.

Trial Wedge, Unbalanced Horizontal Force, Ph (kips)



The maximum calculated horizontal unbalanced pressure, Ph, is plotted for each upslope distance, X. The location of the maximum Ph for each X is indicated in the cross section, above. All points from initial search grid and maximum from secondary search window are plotted.

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TEMPORARY EXCAVATION HEIGHT

BG: **23185** ENGINEER: **JHP**
CLIENT: **Lankershim Crossing, LLC**

CALCULATION SHEET # **8**

CALCULATE THE HEIGHT TO WHICH TEMPORARY EXCAVATIONS ARE STABLE (NEGATIVE THRUST). THE EXCAVATION HEIGHT AND BACKSLOPE AND SURCHARGE CONDITIONS ARE LISTED BELOW. ASSUME THE EARTH MATERIAL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

CALCULATION PARAMETERS

EARTH MATERIAL:	Alluvium	WALL HEIGHT:	5 feet
SHEAR DIAGRAM:	1	BACKSLOPE ANGLE:	0 degrees
COHESION:	200 psf	SURCHARGE:	0 pounds
PHI ANGLE:	32 degrees	SURCHARGE TYPE:	u Uniform
DENSITY:	125 pcf	INITIAL FAILURE ANGLE:	20 degrees
SAFETY FACTOR:	1.25	FINAL FAILURE ANGLE:	70 degrees
WALL FRICTION:	0 degrees	INITIAL TENSION CRACK:	2 feet
CD (C/FS):	160.0 psf	FINAL TENSION CRACK:	20 feet
PHID = ATAN(TAN(PHI)/FS) =	26.6 degrees		

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	51 degrees
AREA OF TRIAL FAILURE WEDGE	7.5 square feet
TOTAL EXTERNAL SURCHARGE	0.0 pounds
WEIGHT OF TRIAL FAILURE WEDGE	941.3 pounds
NUMBER OF TRIAL WEDGES ANALYZED	969 trials
LENGTH OF FAILURE PLANE	3.2 feet
DEPTH OF TENSION CRACK	2.5 feet
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	2.0 feet
CALCULATED HORIZONTAL THRUST	**-71.8 pounds**
CALCULATED EQUIVALENT FLUID PRESSURE	**-5.7 pcf**
MAXIMUM HEIGHT OF TEMPORARY EXCAVATION	**5.0 feet**

CONCLUSIONS:

THE CALCULATION INDICATES THAT THE TEMPORARY VERTICAL EXCAVATIONS UP TO FIVE FEET HIGH WITH LEVEL BACKSLOPE HAVE A NEGATIVE THRUST AND ARE TEMPORARILY STABLE.

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TEMPORARY EXCAVATION HEIGHT

BG: **23185** ENGINEER: **JHP**
CLIENT: **Lankershim Crossing, LLC**

CALCULATION SHEET # **9**

CALCULATE THE HEIGHT TO WHICH TEMPORARY EXCAVATIONS ARE STABLE (NEGATIVE THRUST). THE EXCAVATION HEIGHT AND BACKSLOPE AND SURCHARGE CONDITIONS ARE LISTED BELOW. ASSUME THE EARTH MATERIAL IS SATURATED WITH NO EXCESS HYDROSTATIC PRESSURE.

CALCULATION PARAMETERS

EARTH MATERIAL:	Alluvium	WALL HEIGHT:	5 feet
SHEAR DIAGRAM:	1	BACKSLOPE ANGLE:	45 degrees
COHESION:	200 psf	SURCHARGE:	0 pounds
PHI ANGLE:	32 degrees	SURCHARGE TYPE:	u Uniform
DENSITY:	125 pcf	INITIAL FAILURE ANGLE:	20 degrees
SAFETY FACTOR:	1.25	FINAL FAILURE ANGLE:	70 degrees
WALL FRICTION:	0 degrees	INITIAL TENSION CRACK:	2 feet
CD (C/FS):	160.0 psf	FINAL TENSION CRACK:	20 feet
PHID = ATAN(TAN(PHI)/FS) =	26.6 degrees		

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	51 degrees
AREA OF TRIAL FAILURE WEDGE	7.5 square feet
TOTAL EXTERNAL SURCHARGE	0.0 pounds
WEIGHT OF TRIAL FAILURE WEDGE	941.3 pounds
NUMBER OF TRIAL WEDGES ANALYZED	1938 trials
LENGTH OF FAILURE PLANE	3.2 feet
DEPTH OF TENSION CRACK	3.5 feet
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	2.0 feet
CALCULATED HORIZONTAL THRUST	**-71.8 pounds**
CALCULATED EQUIVALENT FLUID PRESSURE	**-9.0 pcf**
MAXIMUM HEIGHT OF TEMPORARY EXCAVATION	**4.0 feet**

CONCLUSIONS:

THE CALCULATION INDICATES THAT THE TEMPORARY VERTICAL EXCAVATIONS UP TO FOUR FEET HIGH WITH 1:1 BACKSLOPE HAVE A NEGATIVE THRUST AND ARE TEMPORARILY STABLE.

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SLOT CUT ANALYSIS

BG: **23185** ENGINEER: **JHP**
CLIENT: **Lankershim Crossing, LLC**

CALCULATION SHEET # **10**

CALCULATE THE FACTOR OF SAFETY OF SLOT CUT EXCAVATIONS. ASSUME COHESIVE AND FRICTIONAL RESISTANCE ALONG THE SIDES OF SLOTS AS WELL AS THE FAILURE SURFACE. THE HORIZONTAL PRESSURE ON THE SIDES OF THE SLOTS IS THE AT-REST PRESSURE (1-SIN(phi)).

CALCULATION PARAMETERS

EARTH MATERIAL:	Alluvium	EXCAVATION HEIGHT:	5 feet
SHEAR DIAGRAM:	1	BACKSLOPE ANGLE:	0 degrees
COHESION:	200 psf	SURCHARGE:	1000 pounds
PHI ANGLE:	32 degrees	SURCHARGE TYPE:	P Point
DENSITY:	125 pcf	INITIAL FAILURE ANGLE:	20 degrees
SLOT BOUNDARY CONDITIONS		FINAL FAILURE ANGLE:	70 degrees
SLOT CUT WIDTH:	8 feet	INITIAL TENSION CRACK:	1 feet
COHESION:	200 psf	FINAL TENSION CRACK:	20 feet
PHI ANGLE:	32 degrees		

CALCULATED RESULTS

CRITICAL FAILURE ANGLE	60 degrees
HORIZONTAL DISTANCE TO UPSLOPE TENSION CRACK	1.0 feet
DEPTH OF TENSION CRACK	3.3 feet
TOTAL EXTERNAL SURCHARGE	1000.0 pounds
VOLUME OF FAILURE WEDGE	33.1 ft^3
WEIGHT OF FAILURE WEDGE	5134.0 pounds
LENGTH OF FAILURE PLANE	2.0 feet
SURFACE AREA OF FAILURE PLANE	16 ft^2
SURFACE AREA OF SIDES OF SLOTS	4.1 ft^2
NUMBER OF TRIAL WEDGES ANALYZED	548 trials
TOTAL RESISTING FORCE ALONG WEDGE BASE (FrB)	2147.7 pounds
TOTAL RESISTING FORCE ALONG WEDGE SIDES (FrS)	1242.7 pounds
RESULTANT HORIZONTAL COMPONENT OF FORCE	**-24.0 pounds**
CALCULATED FACTOR OF SAFETY	**1.49**

CONCLUSIONS:

THE CALCULATION INDICATES THAT SLOTS CUTS UP TO 8 FEET WIDE AND 5 FEET HIGH IN NATURAL ALLUVIUM HAVE A SAFETY FACTOR GREATER THAN 1.25 AND ARE TEMPORARILY STABLE.

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AERIAL VICINITY MAP

BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 200'

REFERENCE: LOS ANGELES COUNTY DEPARTMENT OF REGIONAL PLANNING, GIS-NET, 2013, http://gis.planning.lacounty.gov/GIS-NET_Public/Viewer.html



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REGIONAL TOPOGRAPHIC MAP

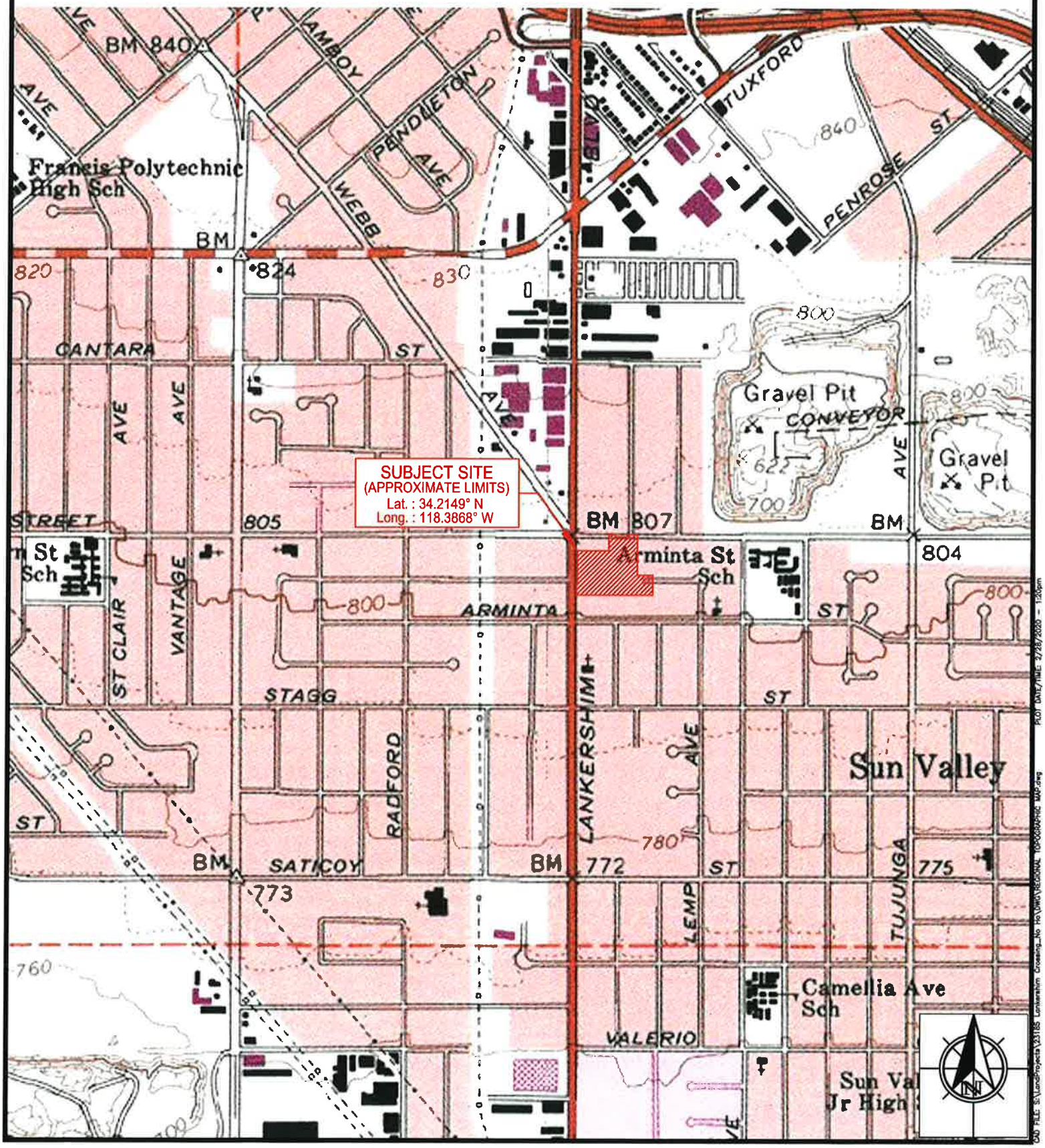
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 1000'

REFERENCE: USGS TOPOGRAPHIC MAP, VAN NUYS 7.5-MINUTE SERIES QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA CREATED 1981.



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HISTORIC TOPOGRAPHIC MAP

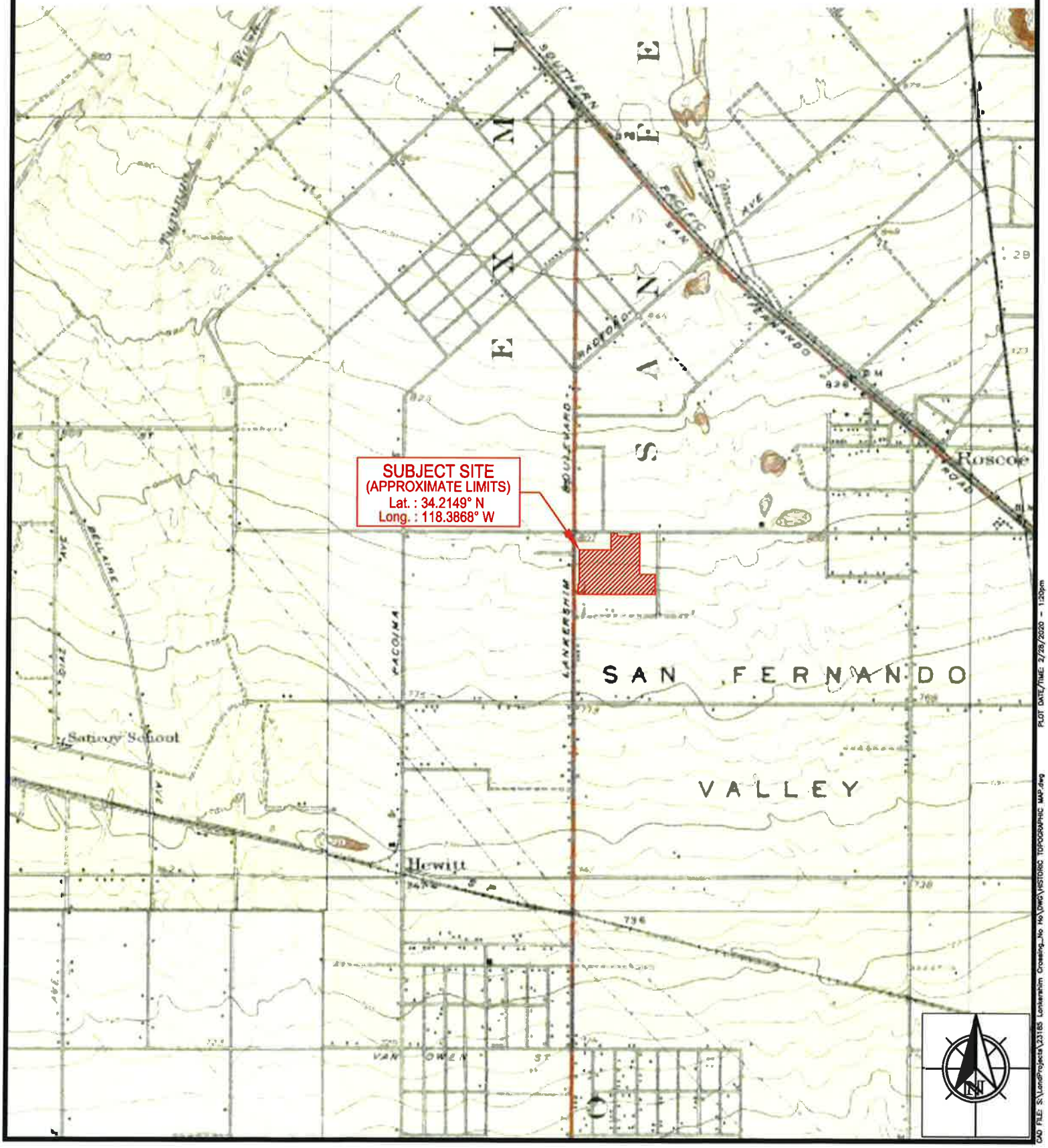
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 1000'

REFERENCE: USGS TOPOGRAPHIC MAP, SUNLAND 6-MINUTE SERIES QUADRANGLE, LOS ANGELES COUNTY, CALIFORNIA CREATED 1926.



PLOT DATE/TIME: 2/25/2020 - 1:20pm

CAD FILE: S:\Land\Projects\23185 Lankershim Crossing_No HA\DWG\HISTORIC TOPOGRAPHIC MAP.dwg

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REGIONAL GEOLOGIC MAP #1

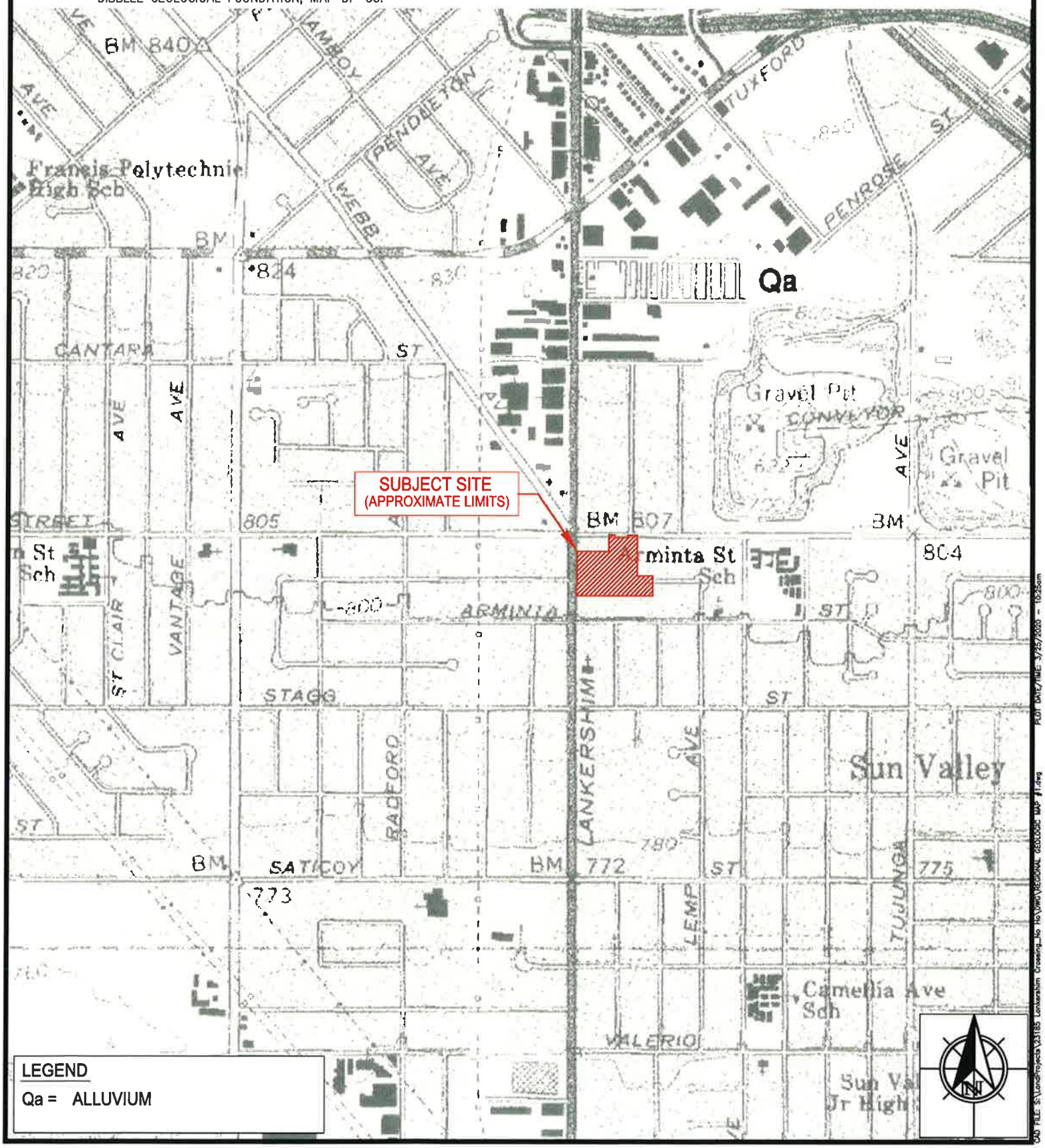
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 1000'

REFERENCE: DIBBLEE, T.W. (1991), GEOLOGIC MAP OF SAN FERNANDO AND VAN NUYS (NORTH 1/2) QUADRANGLES, LOS ANGELES, CALIFORNIA DIBBLEE GEOLOGICAL FOUNDATION, MAP DF-33.



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REGIONAL GEOLOGIC MAP #2

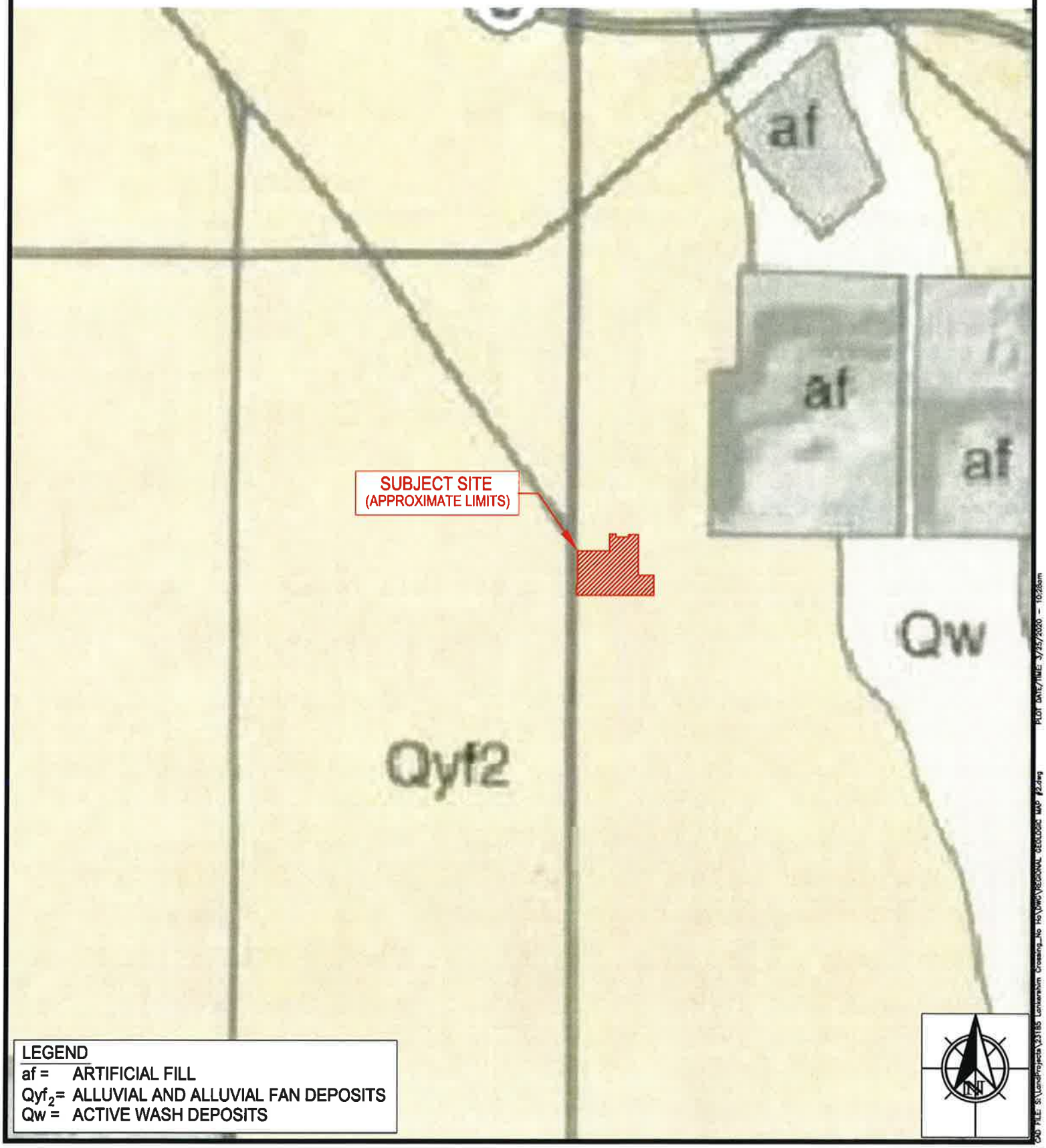
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 1000'

REFERENCE: QUATERNARY GEOLOGY OF THE SAN FERNANDO VALLEY, LOS ANGELES COUNTY, CALIFORNIA 2000 BY C.S. HITCHCOCK AND C.J. WILLS.



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REGIONAL FAULT MAP

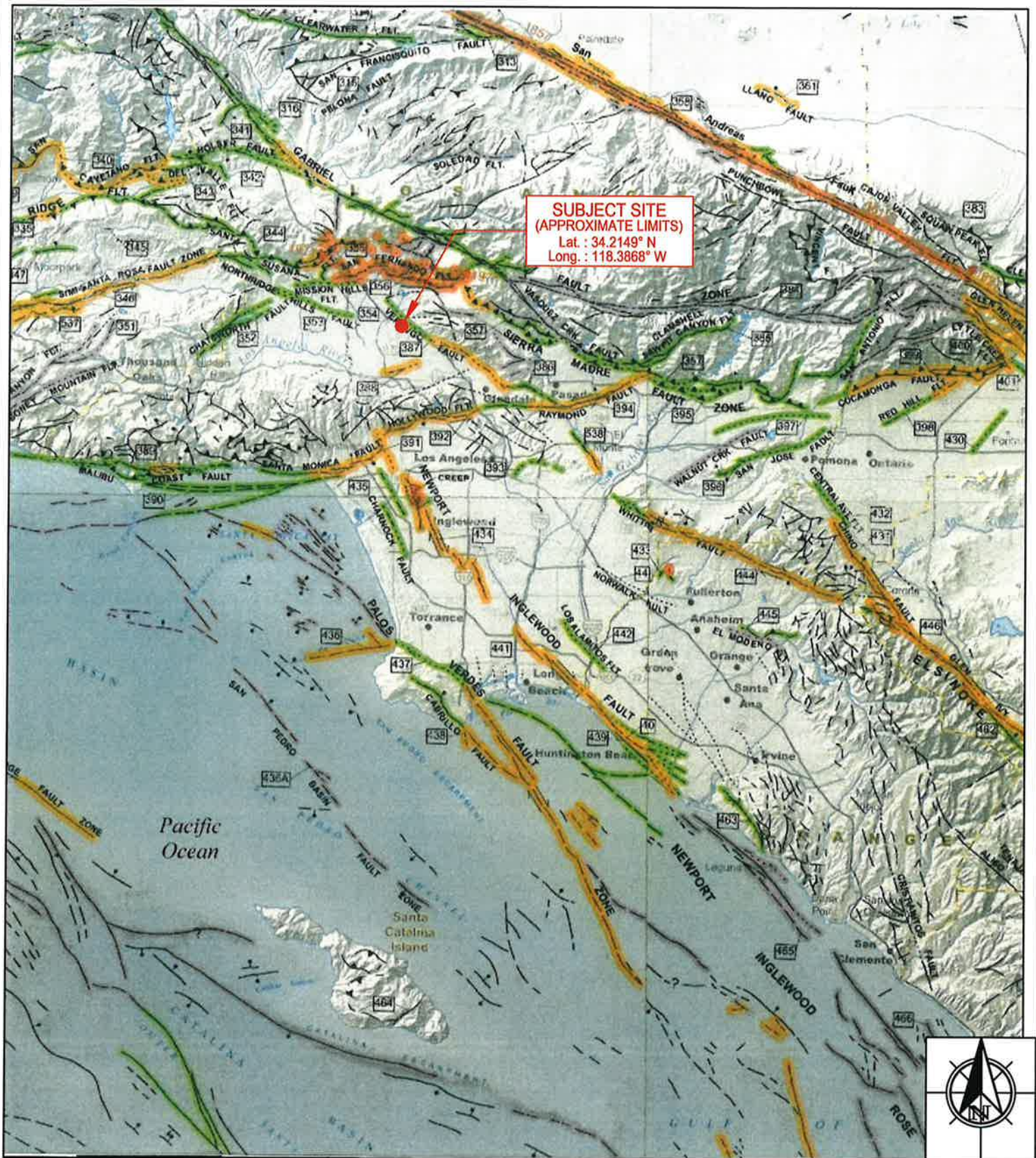
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 12 MILES

REFERENCE: JENNINGS, C.W., AND BRYANT, W.A.,2010, FAULT ACTIVITY MAP OF CALIFORNIA GEOLOGICAL SURVEY, 150th ANNIVERSARY, MAP No 6.



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SEISMIC HAZARD ZONES MAP

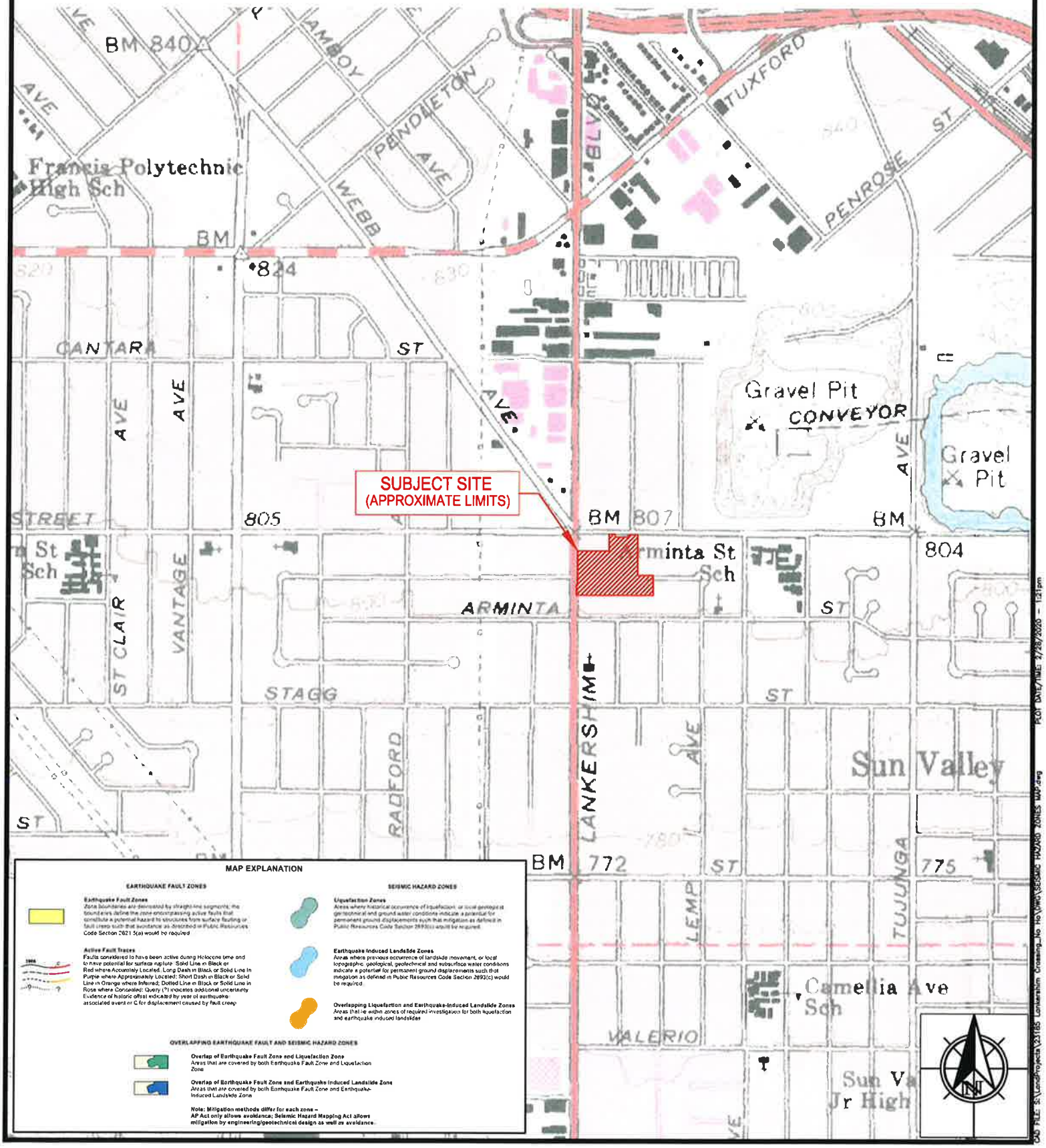
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 1000'

REFERENCE: EARTHQUAKE ZONES OF REQUIRED INVESTIGATION VAN NUYS QUADRANGLE; SEISMIC HAZARD ZONES, DATED FEBRUARY 01, 1998.



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HISTORIC-HIGH GROUNDWATER MAP

BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT : JHP/RSB

DRAWN BY : AS

SCALE: 1" = 4000'

REFERENCE: CGS, 1997, Seismic Hazard Zone Report for the Van Nuys 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 08, and CGS, 1998, Seismic Hazard Zone Report for the Burbank 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 016.

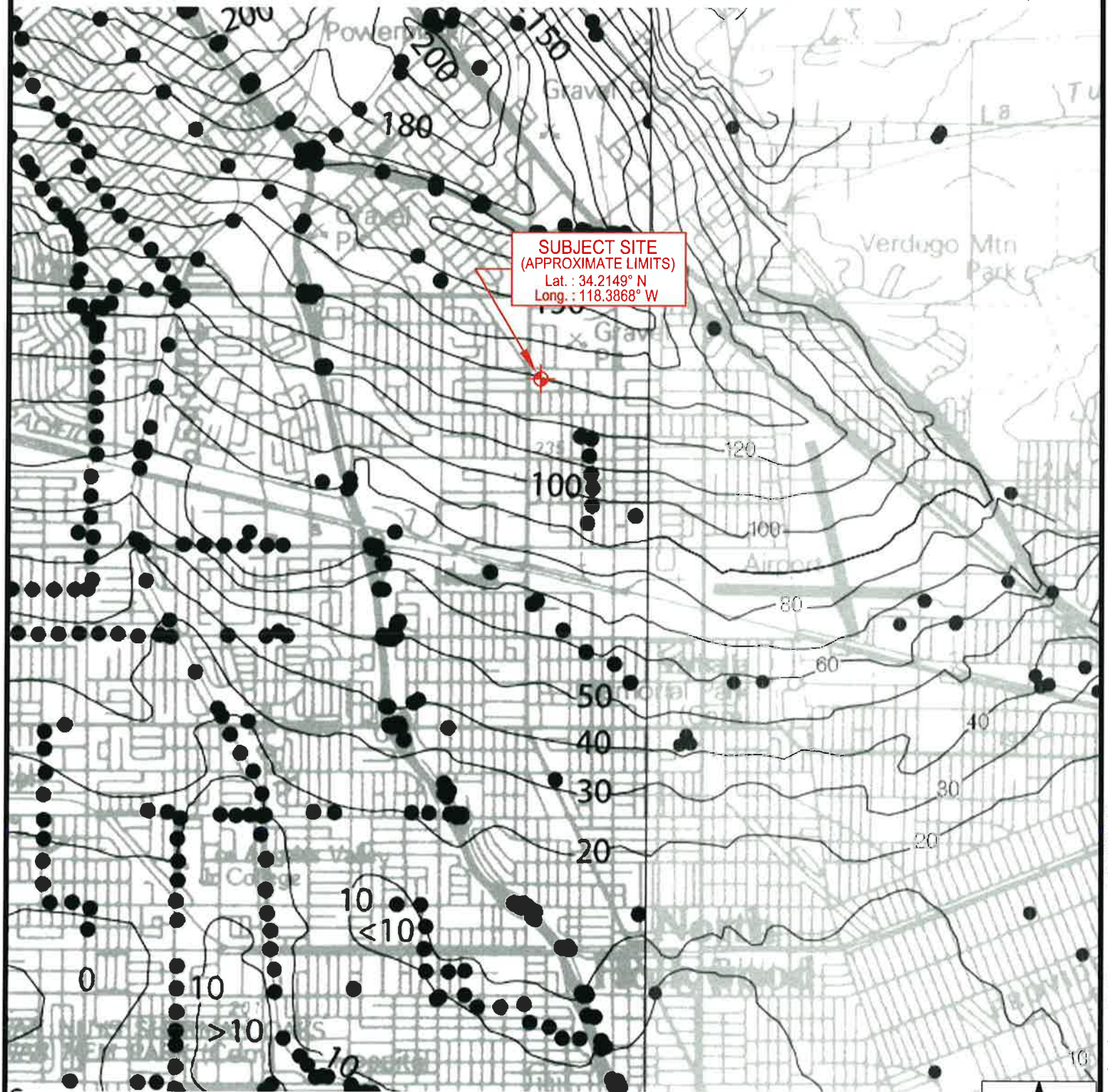


Plate 1.2 Historically Highest Ground Water Contours and Borehole Log Data Locations, Hollywood Quadrangle.

STRATHERN ST.

BLYTHE ST.

LANKERSHIM BLVD.

PROPOSED SEVEN-STORY MIXED-USE BUILDING
OVER ONE SUBTERRANEAN PARKING LEVEL

PROPOSED RETAINING WALL
(SUBTERRANEAN PARKING LEVEL)

PROPOSED CUL-DE-SAC
BLYTHE STREET

PROPOSED 2-STORY ACCESSORY BUILDING
REC. ROOM

LIMITS OF RECOMMENDED SLOT CUTS

LIMITS OF RECOMMENDED COMPACTED FILL BLANKET

APN: 2311-006-029
"NOT A PART"

APN: 2311-006-038

APN: 2311-006-035

APN: 2311-006-030

APN: 2311-006-019

APN: 2311-006-034
"NOT A PART"

APN: 2311-006-039

APN: 2311-006-028

APN: 2311-006-036
"NOT A PART"

APN: 2311-007-002

APN: 2311-007-003

APN: 2311-007-004

APN: 2311-007-027
"NOT A PART"

BG3
TD = 31.5'
Afu 0 to 2.5'
Qa 2.5' to TD
No GW

TB4
TD = 51.3'
Afu 0 to 3'
Qa 3' to TD
No GW

CPT3
TD = 50'

TB5
TD = 51.5'
Afu 0 to 3'
Qa 3' to TD
No GW

P2
TD = 4'

BG4
TD = 31.5'
Afu 0 to 2.5'
Qa 2.5' to TD
No GW'

TB3
TD = 31.5'
Afu 0 to 3'
Qa 3' to TD
No GW

TB1
TD = 51.5'
Afu 0 to 2'
Qa 2' to TD
No GW

CPT2
TD = 50'

BG2
TD = 21.5'
Afu 0 to 2.5'
Qa 2.5' to TD
No GW

CPT1
TD = 50'

BG1
TD = 41.5'
Afu 0 to 1.5'
Qa 1.5' to TD
No GW

TB2
TD = 50.8'
Afu 0 to 3'
Qa 3' to TD
No GW

P1
TD = 9'

EXISTING BUILDING

EXISTING BUILDING (DEMOLISHED)

EXISTING BUILDING (TO BE REMOVED)

COURTYARD

LANDSCAPE

DRIVEWAY

SEGMENT "A" 44,812 SQ. FT.
8,812 SQ. FT. PER FLOOR

SEGMENT "B" 31,345 SQ. FT.
6,269 SQ. FT. PER FLOOR

SEGMENT "C" 1,375 SQ. FT.
8,075 SQ. FT. PER FLOOR

SEGMENT "E" 46,260 SQ. FT.
9,252 SQ. FT. PER FLOOR

SEGMENT "F" 47,995 SQ. FT.
9,599 SQ. FT. PER FLOOR

SEGMENT "G" 36,660 SQ. FT.
7,332 SQ. FT. PER FLOOR

SEGMENT "H" 27,815 SQ. FT.
5,563 SQ. FT. PER FLOOR

SEGMENT "H" 31,895 SQ. FT.
6,379 SQ. FT. PER FLOOR

SEGMENT "G" 6,435 SQ. FT. PER FLOOR

LEGEND

- BG4 — LOCATION AND NUMBER OF HOLLOW-STEM AUGER BORING BY BYER GEOTECHNICAL, INC. (THIS STUDY)
  - TD=31.5' — TOTAL DEPTH (FEET)
  - Afu 0 to 2.5' — DEPTH OF FILL (FEET)
  - Qa 2.5' to TD — DEPTH OF ALLUVIUM (FEET)
  - No GW — NO GROUNDWATER ENCOUNTERED
- TB5 — LOCATION AND NUMBER OF HOLLOW-STEM AUGER BORING BY TWINING CONSULTING (REPORT DATED 06/15/2017)
  - TD=51.5' — TOTAL DEPTH (FEET)
  - Afu 0 to 3' — DEPTH OF FILL (FEET)
  - Qa 3' to TD — DEPTH OF ALLUVIUM (FEET)
  - No GW — NO GROUNDWATER ENCOUNTERED
- CPT3 — LOCATION AND NUMBER OF CONE PENETROMETER TEST BORING BY TWINING CONSULTING (REPORT DATED 06/15/2017)
- P2 — LOCATION AND NUMBER OF PERCOLATION TEST BORING BY TWINING CONSULTING (REPORT DATED 06/15/2017)
  - TD=4' — TOTAL DEPTH (FEET)
- E E — LINE OF CROSS SECTION

GRAPHIC SCALE
20 15 10 5 0 10 20 40
(IN FEET)
1 inch = 20 ft.

MARCH 30, 2020

REFERENCE: TOPOGRAPHIC SURVEY PREPARED BY CHRIS NELSON & ASSOCIATES, INC., DATED 02/2008 AND PLANS BY KAMRAN TABRIZI ARCHITECTS & ASSOCIATES.

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SITE PLAN

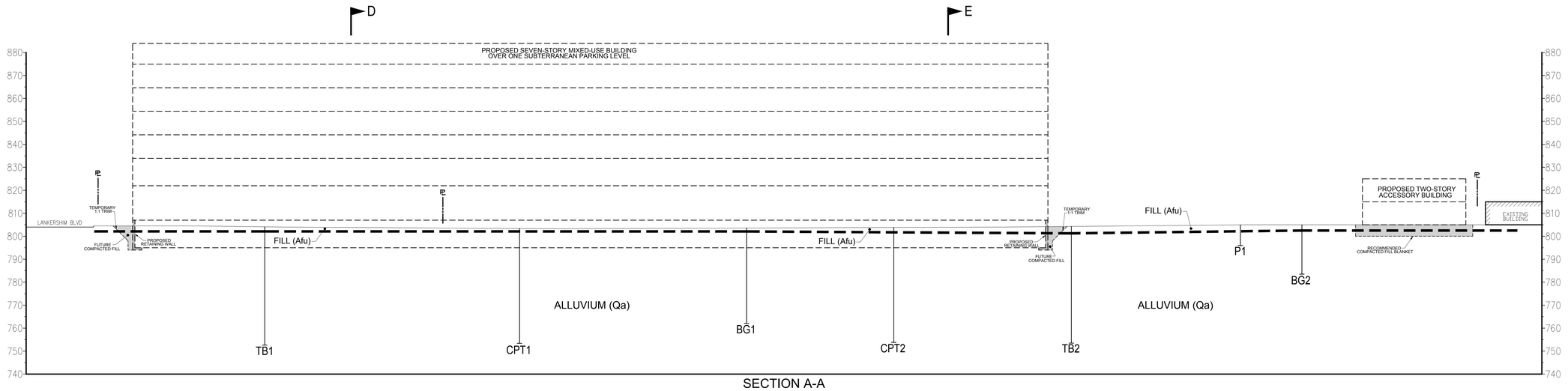
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT: JHP/RSB

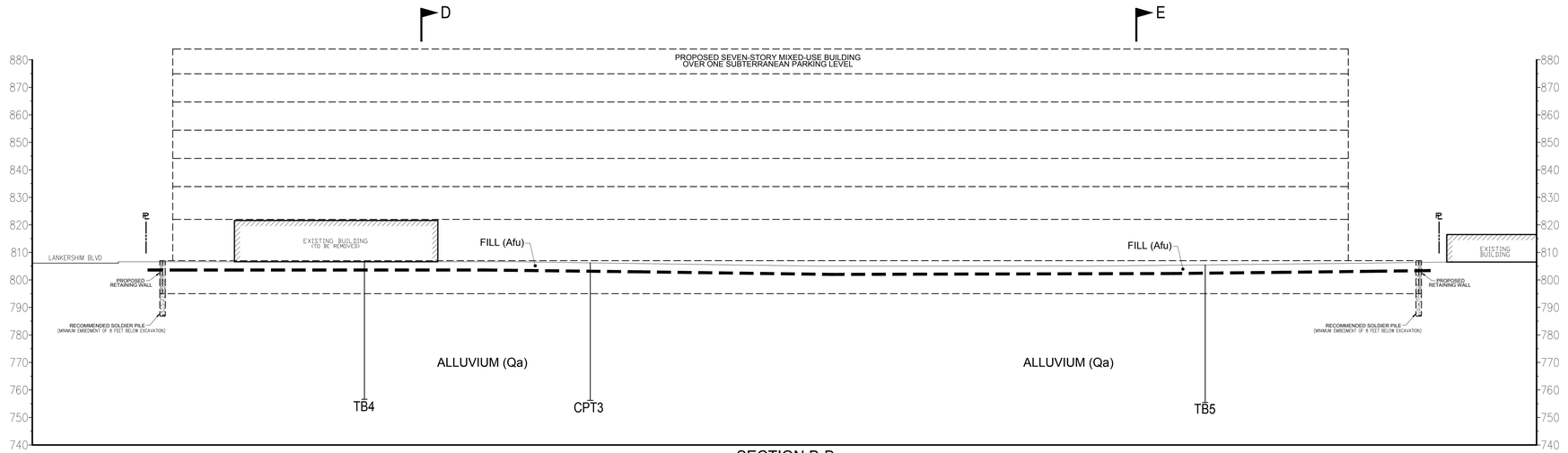
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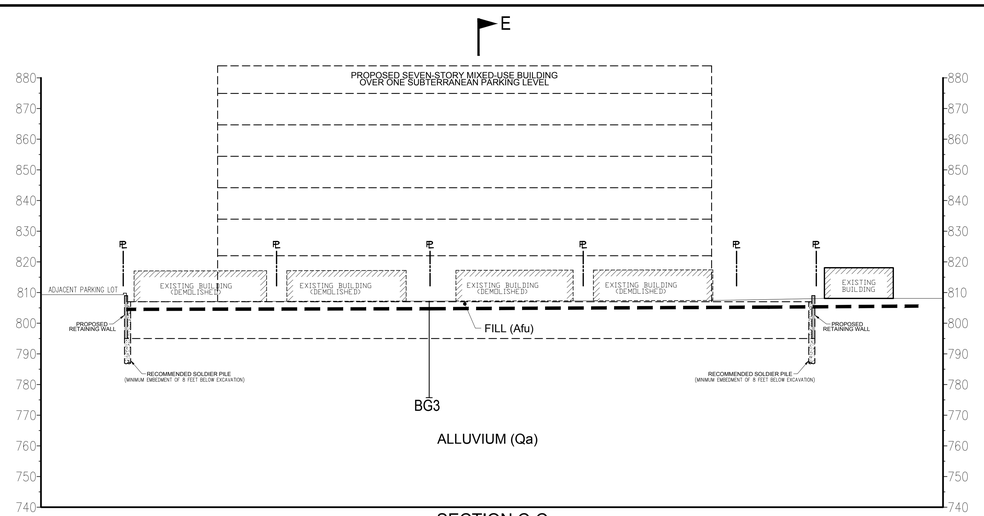
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PLOT DATE/TIME: 4/2/2020 - 10:15am



SECTION A-A



SECTION B-B



SECTION C-C

MARCH 30, 2020

BYER GEOTECHNICAL INC.
1661 E. CHEVY CHASE DR., SUITE 200
GLENDALE, CA 91206
818.549.9959 TEL
818.543.3747 FAX

SECTIONS A, B, & C

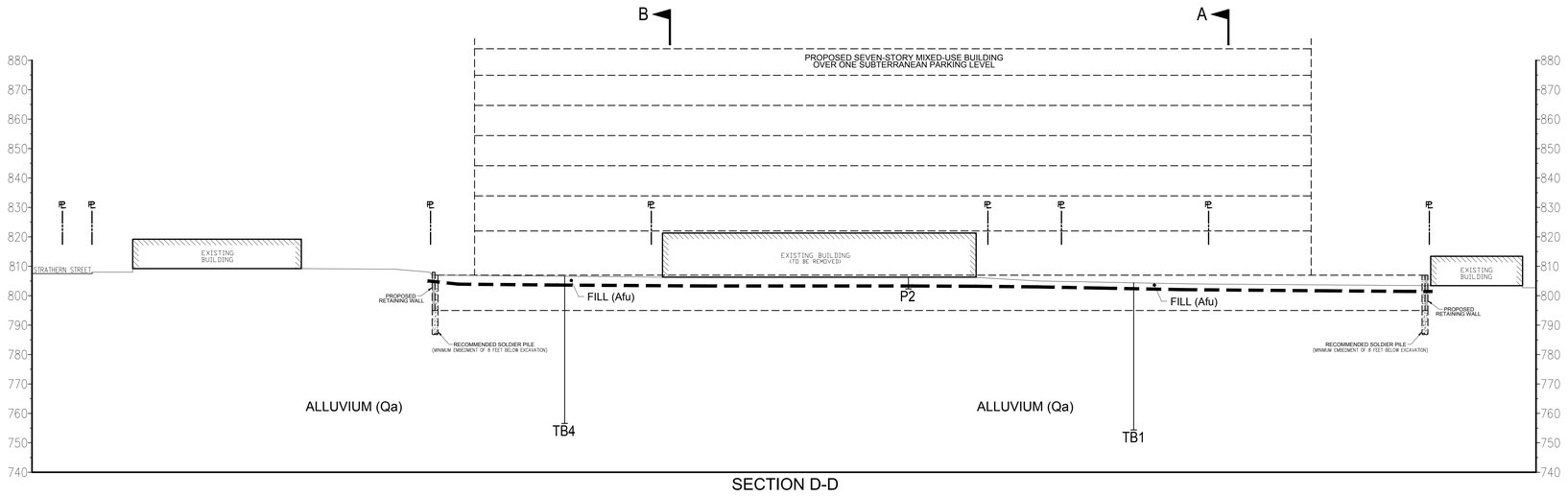
BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT: JHP/RSB

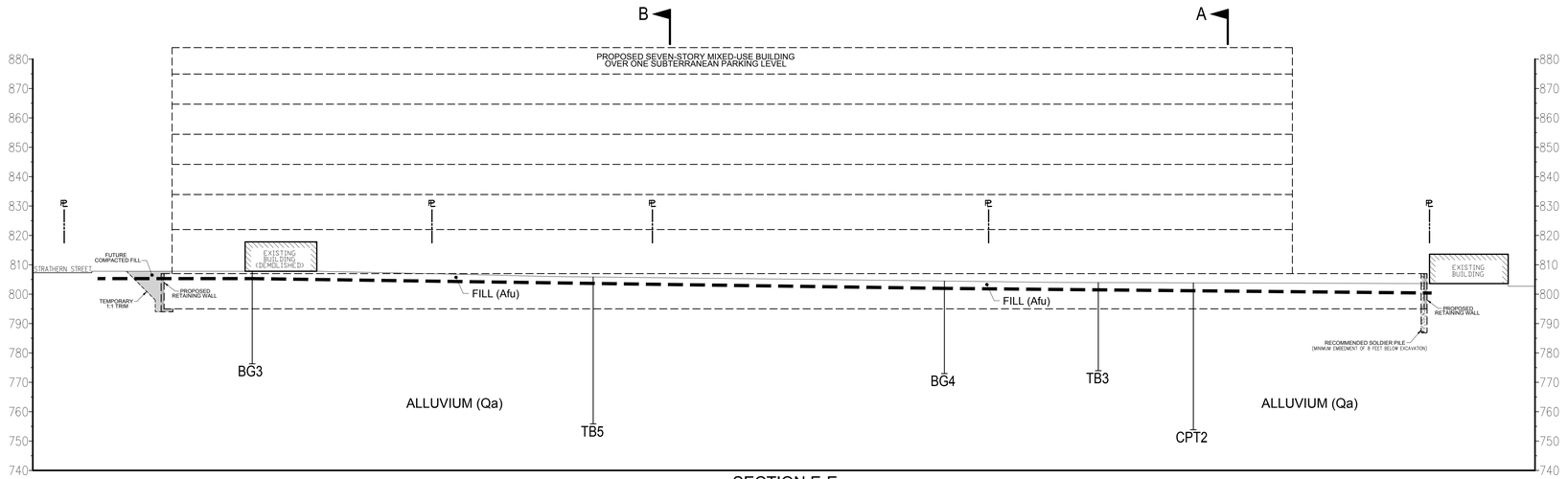
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XC FILE: X:\Jobs\Projects\23185 Lankershim Crossing, Inc-Ivy\DWG\CUT, FILL\23185SS05.dwg



SECTION D-D



SECTION E-E

MARCH 30, 2020

BYER GEOTECHNICAL INC.
1661 E. CHEVY CHASE DR., SUITE 200
GLENDALE, CA 91206
888.549.9959 TEL
888.543.3747 FAX

SECTIONS D & E

BG: 23185 LANKERSHIM CROSSING, LLC

CONSULTANT: JHP/RSB

DRAWN BY: AS

SCALE: 1" = 20'

PLOT DATE/TIME: 4/7/2020 - 10:16am
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BUILDING AND SAFETY
201 NORTH FIGUEROA STREET
LOS ANGELES, CA 90012

OSAMA YOUNAN, P.E.
GENERAL MANAGER
SUPERINTENDENT OF BUILDING

SOILS REPORT APPROVAL LETTER

April 28, 2020

LOG # 112843
SOILS/GEOLOGY FILE - 2

Lankershim Crossing, LLC
23622 Calabasas Road, Suite 121
Calabasas, CA 91302

TRACT:	Lankershim Ranch Land and Water Co. (M R 31-39/44)
LOT(S):	PT 24 (Arb.'s 5, 6, 7, 8, 9, 10, 11 & 25) // PT 24 (Arb.'s 5, 13, 37 & 42)
LOCATION:	7918 - 7946 N. Lankershim Blvd. // 11650 - 11664 W. Strathern St.

CURRENT REFERENCE REPORT/LETTER(S)	REPORT No.	DATE OF DOCUMENT	PREPARED BY
Soils Report	BG 23185	03/30/2020	Byer Geotechnical, Inc.
Oversized Doc(s).	"	"	"

The Grading Division of the Department of Building and Safety has reviewed the referenced report that provides recommendations for the proposed 7-story mixed-use building over 1-subterranean parking level, and a 2-story at-grade recreation building, as shown on the Site Plan and Cross Sections A through E of the 03/30/2020 report. Retaining walls up to 14 feet high are proposed per the consultants.

Four borings were performed to depths ranging from 21.5 to 41.5 feet. In addition, five borings and three CPT's to depths ranging from 31.5 to 51.5 feet were previously performed by another consultant, along with two shallow percolation tests. The earth materials at the subsurface exploration locations consist of up to 3 feet of uncertified fill underlain by alluvium. According to the consultants, groundwater was not encountered to the maximum depths explored of 51.5 feet, and historically highest groundwater level is on the order of 130 feet below the ground surface. The site is relatively level.

The consultants recommend to support the proposed structure(s) on conventional foundations bearing on native undisturbed soils (for the 7-story building over 1-subterranean parking level), and the 2-story at-grade recreation building on a blanket of properly placed fill a minimum of 3 feet thick below the bottom of the footings.

The referenced report is acceptable, provided the following conditions are complied with during site development:

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER

(Note: Numbers in parenthesis ( ) refer to applicable sections of the 2020 City of LA Building Code. P/BC numbers refer the applicable Information Bulletin. Information Bulletins can be accessed on the internet at LADBS.ORG.)

1. The entire site shall be brought up to the current Code standard (7005.9).

2. Approval shall be obtained from the Department of Public Works, Bureau of Engineering, Development Services and Permits Program for the proposed removal of support and/or retaining of slopes adjoining to public way (3307.3.2).

   6262 Van Nuys Blvd. Ste 351, Van Nuys (818) 374-4605

3. The soils engineer shall review and approve the detailed plans prior to issuance of any permit. This approval shall be by signature on the plans that clearly indicates the soils engineer has reviewed the plans prepared by the design engineer; and, that the plans included the recommendations contained in their reports (7006.1).

4. All recommendations of the report that are in addition to or more restrictive than the conditions contained herein shall be incorporated into the plans.

5. A copy of the subject and appropriate referenced reports and this approval letter shall be attached to the District Office and field set of plans (7006.1). Submit one copy of the above reports to the Building Department Plan Checker prior to issuance of the permit.

6. A grading permit shall be obtained for all structural fill and retaining wall backfill (106.1.2).

7. All man-made fill shall be compacted to a minimum 90 percent of the maximum dry density of the fill material per the latest version of ASTM D 1557. Where cohesionless soil having less than 15 percent finer than 0.005 millimeters is used for fill, it shall be compacted to a minimum of 95 percent relative compaction based on maximum dry density. Placement of gravel in lieu of compacted fill is only allowed if complying with LAMC Section 91.7011.3.

8. If import soils are used, no footings shall be poured until the soils engineer has submitted a compaction report containing in-place shear test data and settlement data to the Grading Division of the Department; and, obtained approval (7008.2).

9. Compacted fill shall extend beyond the footings a minimum distance equal to the depth of the fill below the bottom of footings or a minimum of three feet, whichever is greater (7011.3).

10. Existing uncertified fill shall not be used for support of footings, concrete slabs or new fill (1809.2, 7011.3).

11. Drainage in conformance with the provisions of the Code shall be maintained during and subsequent to construction (7013.12).

12. Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the Grading Division of the Department and the Department of Public Works, Bureau of Engineering, B-Permit Section, for any grading work in excess of 200 cubic yards (7007.1).

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13. All loose foundation excavation material shall be removed prior to commencement of framing (7005.3).

14. The applicant is advised that the approval of this report does not waive the requirements for excavations contained in the General Safety Orders of the California Department of Industrial Relations (3301.1).

15. Temporary excavations that remove lateral support to the public way, adjacent property, or adjacent structures shall be supported by shoring or constructed using ABC slot cuts, as recommended. Note: Lateral support shall be considered to be removed when the excavation extends below a plane projected downward at an angle of 45 degrees from the bottom of a footing of an existing structure, from the edge of the public way or an adjacent property. (3307.3.1)

16. Prior to the issuance of any permit that authorizes an excavation where the excavation is to be of a greater depth than are the walls or foundation of any adjoining building or structure and located closer to the property line than the depth of the excavation, the owner of the subject site shall provide the Department with evidence that the adjacent property owner has been given a 30-day written notice of such intent to make an excavation (3307.1).

17. The soils engineer shall review and approve the shoring plans prior to issuance of the permit (3307.3.2).

18. Prior to the issuance of the permits, the soils engineer and/or the structural designer shall evaluate the surcharge loads used in the report calculations for the design of the retaining walls and shoring. If the surcharge loads used in the calculations do not conform to the actual surcharge loads, the soil engineer shall submit a supplementary report with revised recommendations to the Department for approval.

19. Unsurcharged temporary excavations exposing fill shall be trimmed back at a gradient not exceeding 1:1, as recommended.

20. Unsurcharged temporary excavation exposing alluvium may be cut vertical up to 5 feet with level backslope, as recommended.

21. Unsurcharged temporary excavation exposing alluvium may be cut vertical up to 4 feet. For excavations over 4 feet, the lower 4 feet may be cut vertically and the portion of the excavation above 4 feet shall be trimmed back at a gradient not exceeding 1:1, as recommended.

22. Shoring shall be designed for the lateral earth pressures as specified in the section titled "Soldier Piles" on page 21 of the 03/30/2020 report; all surcharge loads shall be included into the design. Total lateral load on shoring piles shall be determined by multiplying the recommended EFP by the pile spacing.

23. Shoring shall be designed for a maximum lateral deflection of 1 inch, provided there are no structures within a 1:1 plane projected up from the base of the excavation. Where a structure is within a 1:1 plane projected up from the base of the excavation, shoring shall be designed for a maximum lateral deflection of ½ inch, or to a lower deflection determined by the consultant that does not present any potential hazard to the adjacent structure.

24. A shoring monitoring program shall be implemented to the satisfaction of the soils engineer.

25. Surcharged ABC slot-cut method may be used for temporary excavations with each slot-cut not exceeding 5 feet in height and not exceeding 8 feet in width, as recommended. The surcharge load shall not exceed the value given in the report. The soils engineer shall determine the clearance between the excavation and the existing foundation. The soils engineer shall verify in the field if the existing earth materials are stable in the slot-cut excavation. Each slot shall be inspected by the soils engineer and approved in writing prior to any worker access.

26. All foundations shall derive entire support from native undisturbed soils, or a blanket of properly placed fill (a minimum of 3 feet thick below the bottom of the footings), as recommended and approved by the soils engineer by inspection.

27. Footings supported on approved compacted fill shall be reinforced with a minimum of four (4), ½-inch diameter (#4) deformed reinforcing bars. Two (2) bars shall be placed near the bottom and two (2) bars placed near the top of the footing.

28. Slabs placed on approved compacted fill shall be at least 3½ inches thick and shall be reinforced with ½-inch diameter (#4) reinforcing bars spaced a maximum of 16 inches on center each way.

29. The seismic design shall be based on a Site Class D as recommended. All other seismic design parameters shall be reviewed by LADBS building plan check.

30. Cantilevered retaining walls up to 14 feet in height with a level backfill shall be designed for a minimum equivalent fluid pressure (EFP) of 43 PCF, as specified on page 17 of the 03/30/2020 report. All surcharge loads shall be incorporated into the design.

31. Retaining walls higher than 6 feet shall be designed for lateral earth pressure due to earthquake motions as specified on page 18 of the 03/30/2020 report (1803.5.12).

32. Basement walls and other walls in which horizontal movement is restricted at the top shall be designed for at-rest pressure as specified on page 18 of the 03/30/2020 report (1610.1). All surcharge loads shall be included into the design.

33. All retaining walls shall be provided with a standard surface backdrain system and all drainage shall be conducted in a non-erosive device to the street in an acceptable manner (7013.11).

34. With the exception of retaining walls designed for hydrostatic pressure, all retaining walls shall be provided with a subdrain system to prevent possible hydrostatic pressure behind the wall. Prior to issuance of any permit, the retaining wall subdrain system recommended in the soils report shall be incorporated into the foundation plan which shall be reviewed and approved by the soils engineer of record (1805.4).

35. Installation of the subdrain system shall be inspected and approved by the soils engineer of record and the City grading/building inspector (108.9).

36. Basement walls and floors shall be waterproofed/damp-proofed with an LA City approved "Below-grade" waterproofing/damp-proofing material with a research report number (104.2.6).

37. Prefabricated drainage composites (Miradrain, Geotextiles) may be only used in addition to traditionally accepted methods of draining retained earth.

38. The structures shall be connected to the public sewer system per P/BC 2020-027.

39. The infiltration facility design and construction shall comply with the minimum requirements specified in the Information Bulletin P/BC 2020-118.

40. The infiltration system (dry well) shall be constructed within the landscaping area at the southeast portion of the site, as recommended on pages 26 and 27 of the 03/30/2020 report.

41. Infiltration shall occur below a depth of 10 feet, as recommended.

42. The construction of the infiltration system shall be provided under the inspection and approval of the soils engineer.

43. An overflow outlet shall be provided to conduct water to the street in the event that the infiltration system capacity is exceeded. (P/BC 2020-118)

44. Approval for the proposed infiltration system from the Bureau of Sanitation, Department of Public Works shall be secured.

45. A minimum distance of 10 feet (in any direction) shall be provided from adjacent proposed/existing footings to the discharge of the proposed infiltration system. A minimum distance of 10 feet horizontally shall be provided from private property lines to the proposed infiltration system.

46. The dry well area between the blank casing and the surround soils shall be sealed to a minimum depth of 10 feet below the bottom of any adjacent foundation with bentonite slurry (or equivalent) to prevent unintended leakage or horizontal infiltration.

47. All concentrated drainage shall be conducted in an approved device and disposed of in a manner approved by the LADBS (7013.10).

48. The soils engineer shall inspect all excavations to determine that conditions anticipated in the report have been encountered and to provide recommendations for the correction of hazards found during grading (7008, 1705.6 & 1705.8).

49. Prior to pouring concrete, a representative of the consulting soils engineer shall inspect and approve the footing excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the work inspected meets the conditions of the report. No concrete shall be poured until the LADBS Inspector has also inspected and approved the footing excavations. A written certification to this effect shall be filed with the Grading Division of the Department upon completion of the work. (108.9 & 7008.2)

50. Prior to excavation an initial inspection shall be called with the LADBS Inspector. During the initial inspection, the sequence of construction; shoring; ABC slot cuts; protection fences; and, dust and traffic control will be scheduled (108.9.1).

51. Installation of shoring and/or slot cutting shall be performed under the inspection and approval of the soils engineer and deputy grading inspector (1705.6, 1705.8).

52. Prior to the placing of compacted fill, a representative of the soils engineer shall inspect and approve the bottom excavations. The representative shall post a notice on the job site for the LADBS Inspector and the Contractor stating that the soil inspected meets the conditions of the report. No fill shall be placed until the LADBS Inspector has also inspected and approved the bottom excavations. A written certification to this effect shall be included in the final compaction report filed with the Grading Division of the Department. All fill shall be placed under the inspection and approval of the soils engineer. A compaction report together with the approved soil report and Department approval letter shall be submitted to the Grading Division of the Department upon completion of the compaction. In addition, an Engineer's Certificate of Compliance with the legal description as indicated in the grading permit and the permit number shall be included (7011.3).

53. No footing/slab shall be poured until the compaction report is submitted and approved by the Grading Division of the Department.

GLEN RAAD
Geotechnical Engineer I

Log No. 112843
213-482-0480

cc: GP Design Group, LLC, Applicant
Byer Geotechnical, Inc., Project Consultant
VN District Office

Appendix F
Phase I Environmental Site Assessment

PHASE I
ENVIRONMENTAL ASSESSMENT REPORT

NOVEMBER 21, 2017

7934 LANHERSHIM BLVD (APN 2311-006-019, 028, 030, 035, 038, 039; 2311-007-001 THROUGH 004)
NORTH HOLLYWOOD, CITY OF LOS ANGELES, CA 91605



PREPARED FOR

SUMMER LAND PARTNERS GROUP, INC.
5900 SEPULVEDA BLVD, #580
SHERMAN OAKS, CA 91411

PREPARED BY

ROBIN ENVIRONMENTAL MANAGEMENT (REM)
1015 VIS ROMALES
SAN DIMAS, CA 91773
(909) 592-3833

PROJECT NO. 263117

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THIS REPORT WAS PREPARED IN CONFORMANCE TO MEET OR EXCEED THE LIMITATIONS AS SET FORTH BY THE AMERICAN SOCIETY FOR TESTING & MATERIALS (ASTM) STANDARD PRACTICE E 1527-13. IT IS FOR THE EXPRESS USE OF THE CLIENT, AND ITS CONTENTS ARE CONSIDERED TO BE PREVILEGED AND CONFIDENTIAL. ACCEPTANCE OF THIS REPORT CONSTITUTES AN AGREEMENT BY THE CLIENT TO ASSUME FULL LIABILITY FOR INFORMATION CONTAINED HEREIN. THIS REPORT IS FOR THE SOLE USE AND INTERPRETATION OF THE CLIENT, AND IT IS NOT TO BE REPRODUCED OR DISTRIBUTED TO OUTSIDE PARTIES. THE INFORMATION IN THIS REPORT IS FURNISHED IN GOOD FAITH AND WAS OBTAINED FROM PUBLIC & PRIVATE SOURCES AND DATABASE CONSIDERED RELIABLE. REM MAKES NO REPRESENTATION OF WARRANTY REGARDING THE ACCURACY, OR RELIABILITY, QUALITY OR COMPLETENESS OF SUCH INFORMATION. IN NO EVENT, SHALL REM BE LIABLE TO ANY PARTY FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR EXAMPLARY DAMAGES. THE CUSTOMER SHALL ASSUME FULL LIABILITY FOR USE OF THIS REPORT.

1. INTRODUCTION

1.1 Objective

This report summarizes the results of a Phase I Environmental Site Assessment of the subject property performed by Robin Environmental Management (REM) in November 2017. The purpose of this Environmental Site Assessment is to evaluate the potential for environmental concerns or liabilities due to past and/or current land use practices at the subject site or from nearby properties. This assessment included in this report is solely targeted for CERCLA (Superfund) liability and the "innocent landowner defense", to permit user to satisfy one of the requirements to qualify for the innocent landowner defense to CERCLA liability, by conducting all appropriate inquiries to identify recognized environmental conditions (REC's).

1.2 Scope of Work

- Visual investigation of the property to obtain information regarding obvious visual signs of adverse environmental conditions, contamination, hazardous material usage, storage and handling on and in the adjoining sites (only up to one parcel next to the subject property) of the subject property

- Visual survey of the adjoining land uses (only up to one parcel next to the subject property) and determination of any current nearby operations which may potentially impact the subject site

- Government document search of records compiled by various government agencies for on site or nearby operations (past and present) to aid in the identification of any potential contamination sources

- Review of building permit records available at local agency and other pertinent documents to identify any potential past on-site operations which may have environmental implications.

2. PROPERTY DESCRIPTION

2.1 Geographical Description of Property

The subject site at 7934 Lankershim Boulevard (APN 2311-006-019, 028, 030, 035, 038, 039; 2311-007-001 through 004) is a roughly "L"-shaped lot engulfing the roughly E-W trending rectangular-shaped 7980 Lankershim property (occupied by Burger King) at the exact southeastern corner of (the N-S trending) Lankershim Blvd and (the E-W trending) Strathern Street to its northwest within a mixed residential/commercial zone in the North Hollywood geographic area of the city of Los Angeles, California. See Figure 1 for Site Photos, Figure 2 for a Site Location Map, and Figure 3 for a Recent Aerial Photo Showing Site/Its Vicinity General Layout.

2.2 General Description of the Subject Property

The subject site at 7934 Lankershim Boulevard (APN 2311-006-019, 028, 030, 035, 038, 039; 2311-007-001 through 004) is a roughly "L"-shaped lot engulfing the roughly E-W trending rectangular-shaped 7980 Lankershim property (occupied by Burger King) at the exact southeastern corner of (the N-S trending) Lankershim Blvd and (the E-W trending) Strathern Street to its northwest in the North Hollywood geographic area of the city of Los Angeles, California. The subject site can be generally divided into following three sub-lots (see Figure 3 for location/configuration of each sub-lot):

11650-11664 Strathern Street Sub-Lot (APN 2311-006-019, 030, 035, & 038; in the northeastern portion of the site) - A roughly E-W trending rectangular-shaped sub-lot on the southern block of (the E-W trending) Strathern Street between Lankershim Blvd to the west and Beck Avenue to the west; and occupied by four dwellings with, from east to west, 11650, 11656, 11660, and 11664 Lankershim Blvd addresses

7934 Lankershim Blvd Sub-Lot (APN 2311-006-028, 039; 2311-007-001 through 003; in the main portion of the site) - A roughly "Zig-Zag"-shaped with its main portion on the eastern block of (the N-S trending) Lankershim Blvd between Strathern Street to the north and Arminta Street to the south. The sub-lot is mainly improved with a single-story roughly N-S trending rectangular-shaped commercial building in the central part of its western portion; N-S trending rectangular-shaped asphalt-paved parking spaces/driveways along its west side; and paved/unpaved building material yards for remaining portions of the sub-lot.

7916/7918 Lankershim Blvd Sub-Lot (APN 2311-007-004; at the southwestern corner of the site) - A roughly E-W trending rectangular-shaped sub-lot located on the eastern block of (the N-S trending) Lankershim Blvd between Strathern Street to the north and Arminta Street to the south. The sub-lot is mainly improved with a single-story roughly rectangular-shaped office building in its southwestern portion; and asphalt/concrete-paved parking spaces/driveways for its remaining portions.

No pits, ponds, swamps, dry wells, or lagoons were observed on the subject property. No apparently significant surface staining was observed on the paved/unpaved outdoor areas and the building areas of the site.

2.3 Present Tenants and Business Operation

At the time of site inspection on November 20, 2017, various residences occupied the 11650-11664 Strathern Street Sub-Lot. Prime Hardscape Center building materials supplier occupied the 7934 Lankershim Blvd Sub-Lot; and Recovery Insurance occupied the 7916/7918 Lankershim Blvd Sub-Lot.

2.4 Past Tenants and Business Operation

Methods of researching historic use of ownership of the subject property employed by REM are as follows:

- Co. Assessor's Office Records
- Historic Aerial Photo Records
- Historic City Directory Record

2.4.1 Co. Assessor's Office Records

Los Aneles Co. Assessor's Office records summaries for site parcels included in Appendix B indicate that the 11650-11664 Strathern Street Sub-Lot was developed into its current four-dwelling setting in 1956. The 7934 Lankershim Blvd Sub-Lot was generally developed into its current mainly paved/unpaved yard setting around 1950; but with solely on sub-lot commercial building not established until 1967. The 7916/7918 Lankershim Blvd Sub-Lot was generally developed into its current office building and its associated paved parking setting in 1941.

2.4.2 Historic Aerial Photo Records

Historic aerial photo records for the site area included in Appendix C showed that, in 1928

and 1938, the site was vacant lot. In 1956, the 11650-11664 Strathern Street Sub-Lot and the 7916/7918 Sub-Lot were generally with their current settings; and the 7934 Sub-Lot was occupied by a plant nursery.

2.4.3 Historic City Directory Records

REM staff reviewed historic city directory records available at the Sherman Library, Newport Beach, CA. Based on available historic city directory records, various residences have been occupying the 11650-11664 Strathern Street Sub-Lot since 1956; and the 7934 Lankershim Blvd Sub-Lot was occupied by a plant nursery from 1949 until the early 2010's. For the 7916/7918 Lankershim Blvd Sub-Lot, it has been occupied by various professional offices since 1941.

2.4.4 Site Development/Occupancy History

Historic site usage data listed above reveal the following development/occupancy history of the subject site:

Prior to 1941 - The site apparently remained vacant and undeveloped
1941 - The 7916/7918 Sub-Lot was first developed into its current office building and its associated paved parking setting; and the sub-lot has been occupied by various professional offices since
1949 - The 7934 Lankershim Blvd Sub-Lot was first developed into a plant nursery
1949 to the early 2010's – A plant nursery occupied the 7934 Lankershim Blvd Sub-Lot
1956 - The 11650-11664 Strathern Street Sub-Lot was first developed into its current 4-dwelling setting and has been occupied by various residences since

2.5 Regional Physical Setting

The subject property's physical locations were researched employing a United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle (Quad) Map relevant to the subject property. The USGS 7.5 Minute Quad Map has an approximate scale of 1 inch to 2,000 feet, and shows physical features with environmental significance such as wetlands, water bodies, roadways, mines, and buildings. Please refer to Appendix A, Figure 2.

The physical and natural features illustrated on the Quad Map served as areas of visual emphasis when conducting the site inspection of the subject property. The USGS 7.5 Minute Quad Map was used as the only Standard Physical Setting Source, and is sufficient as a single reference. The surface elevation of the subject site is approximately 805 feet above Mean Sea level and exhibits a regional topographic gradient generally towards south.

2.6 Hydrogeological Information

The subject site is located in the east-central portion of the San Fernando Valley Basin. The San Fernando Valley Basin is bounded by San Gabriel Mountains to the northeast, Simi Hills to the west, Santa Monica Mountains to the south, and Verdugo Mountains to the east. Sediments in the east-central portion of the San Fernando Valley Basin are typified by coarse sands and gravels derived from eroded detritus of the granitic complex of Santa Monica Mountains to the south. These sediments are relatively free-draining and exhibit moderate to high permeabilities. Unconfined aquifers occurring in the highly permeable and porous sand and gravel deposits are characteristic hydrogeologic features in the area.

Hydrogeologically, the subject site is located within the east-central portion of the San Fernando Groundwater Basin. The general direction of groundwater flow in the vicinity of the subject property is reported to be towards southeast. Hydrogeologic information obtained from the County of Los Angeles Department of Public Works, Hydrological Records Section shows that groundwater occurs at an approximate depth of 270 feet underneath the site area.

2.7 Historical and Current Hazardous Substance Usage

2.7.1 Record search sources

REM's field engineer contacted the following public agencies to find any records of former operation of underground storage tank (UST) of gasoline or any other hazardous substances on the subject site premise:

- City of Los Angeles Building Department
- California Regional Water Quality Control Board – Los Angeles Region (RWQCB-LA)

No records were found in reference to historical usage or handling of UST on the subject property.

2.7.2 List and quantities of the hazardous materials

List and quantities of the hazardous materials previously or presently used, disposed, treated, stored, or generated at the subject property were searched and assessed. During the site inspection, the use, storage, and generation of any significant quantity of hazardous materials was not observed. No regulatory agency data was found regarding historic or present use of the subject property in regards to hazardous materials previously or presently

used, stored, treated, disposed or generated at the subject property. REM staff also searched the State Department of Toxic Substances Control (DTSC)-compiled records website for all documented hazardous wastes disposal activities throughout California in the past at http://hwts.dtsc.ca.gov/report_list.cfm for site addresses and did not find any records.

2.7.3 Permits, licenses, and registrations

All present and past records of permits, licenses, registrations, certificates of environmental relation were searched. No equipment requiring environmentally related licensing was observed. Thus, no permits or registrations were necessary for the operation of subject business. REM staff searched the South Coast Air Quality Management District (SCAQMD)-compiled Facility INformation Detail (FIND) database at www.aqmd.gov/webappl/fim/defualt.htm for site addresses and found no SCAQMD permit records for the site.

2.7.4 Violation or non-compliance notice

No currently pending violation or notice of non-compliance was issued with the present environmental regulations, according to the findings of our environmental assessment on the subject property.

2.7.5 Regulatory database record research

According to the conducted government records search (see Section 5.0), the subject property was not recognized being listed on the following environmental regulatory database record research (NETR database): NPL, RCRA-TSD, CERCLIS, NFRAP, RCRA-G, ERNS, CORRACTS, CORTESE, CALSITES, LUST, UST, and SWF.

2.7.6 Environmental lien records

Under current environment regulation, government agency may place an environmental lien on the property with known contamination and no cleanup/mitigation activities apparently intended being conducted by the site owner upon the agency issued the cleanup enforcement order. The conducted government records search shows that there are no environmental liens placed by the federal environmental agency under CERCLA regulations for the subject site. REM staff searched the DTSC EnviroStor website data search and found no environmental liens were placed by the State environmental agency for the subject site. Records available at the City of Los Angeles also show that there are no environmental liens placed by the local environmental agency for the subject site.

3. PROPERTY RECONNAISSANCE

REM's environmental assessor/geologist performed the field survey of the subject site and adjacent properties on November 20, 2017. A site location map and a site development plan are included as Figure 2 and Figure 3, respectively.

3.1 Air Quality - Indoor and Visible Emissions

No unusual smells, obnoxious odors, or visual emissions were observed during the inspection of the subject property. Neither air emission stacks nor paint booth were present, thus no pertinent permits were searched for the previous records of violation history.

3.2 Asbestos-Containing Material (ACM)

Asbestos-containing building materials are normally found in the following items. REM inspected such materials as to the visual conditions and locations; however the actual sampling analysis is beyond the contracted scope of work, thus not included in the report.

Potential asbestos-containing building materials in general:

- floor tile and associated mastic adhesive underneath the floor tile,
- carpet mastic,
- linoleum sheeting and associated backing material or leveling compound,
- drywall joint compound or mud product,
- plaster compound,
- acoustic ceiling texture,
- ceiling tile and associated mastic adhesive,
- window putty or glazing,
- roofing material (shingle, cap-sheet, etc.),
- roofing penetration mastic,
- transite panel or flue pipe,
- fire-proofing material,
- pipe insulation or wrapping, etc.

As discussed in section 2.4, it can be concluded that the currently on-site buildings were all constructed prior to the year when friable ACM's for commercial use was banned by federal government in 1978. Thus, if the buildings were built prior to 1978, the said building materials are assumed as suspicious asbestos-containing materials (ACM's).

However, though buildings were built after 1978, comprehensive asbestos survey can find asbestos fiber in the subject building to any degree. In such cases, even if asbestos-containing material might be present at the site, so long as they would be in an undisturbed state without disturbances or dismantlement, such ACM's do not pose an immediate health risk to building occupants. Local Building & Safety Department and appropriate Air Quality Management District (AQMD) require all possible asbestos-containing materials (ACM's) to be identified and removed in the case of renovation or demolition of existing structure which might disturb or dismantle the suspicious ACM's.

If it is found that asbestos is contained within subject building materials through comprehensive asbestos survey, the implementation of an Asbestos Operations and Maintenance Program shall be developed, in order to assure the safety of occupants who may be exposed to potential asbestos hazards.

An AHERA Certified Inspector or a State of California Certified Asbestos Consultant can perform the asbestos survey involving bulk sampling. NIST/NVLAP accredited laboratory using Polarized Light Microscopy with Dispersion Station (PLM/DS) in accordance with the Environmental Protection Agency (EPA) "Interim Method of the Determination of Asbestos in Bulk Insulation Samples" (EPA-600-M4-82-020).

3.3 Lead-Based Paint (LBP)

As discussed in section 2.4, it can be concluded that the currently on-site buildings were all constructed prior to the year of 1978 when lead-based paint in exterior and interior coating for commercial use was banned by federal government. Due to the dangers of lead poisoning, the Consumer Product Safety Commission banned the sale of lead-based paint (LBP), defined as containing more than 0.06% lead by weight, to consumers, and the use of LBP in residences and other areas where consumers have direct access to painted surfaces. Effective June 3, 1993, the Lead in Construction Standard codified in 29 CFR (Code of Federal Regulations) 1926.62 applies to sources or potential sources of lead exposure present in an "employment-related" context.

The trigger mechanism for application of the standard is an activity that, by its inherent nature, may cause exposure to lead. Therefore, within the context of regulatory compliance for OSHA (Occupation Safety and Health Agency), the subject property did not appear to require further response to suspect lead-based paint as no on-site activity by its inherent nature would cause exposure to lead.

However, prior to renovation, demolition, or any activity that will cause a disturbance of any suspect lead-based paint, sampling to determine lead content is recommended.

In 1978, the federal government banned the use of lead-based paint in residential applications; however, usage in general industry continued at a decreased rate to the present. Lead-based paint presents a hazard through inhalation or ingestion of paint chips or vapor fumes. The greatest cumulative health threat is to young children, and for this reason the Department of Housing and Urban Development (HUD) has promulgated lead standards and survey requirements for buildings affected by HUD funding. This HUD regulation represents the only federal requirement for lead-based paint, hazard management applicable to privately owned structures.

3.4 Polychlorinated Biphenyl (PCB's)

Prior to 1978, PCBs were commonly used in dielectric fluids in transformers, capacitors, and light ballasts due to their desirable thermal characteristics, and hydraulic fluid compactor. Due to their demonstrated toxicity and persistence in the environment, PCB manufacturing in the United States was discontinued.

Pole- and pad-mounted transformers were found in the vicinity of the subject site buildings, appearing in good condition without any sign of leakage. No PCB-containing hydraulic fluid trash compactor was discovered on the site premise.

3.5 Underground Storage Tank (UST)

The visual inspection of the subject site revealed no evidence of surface or above ground features (e.g., fill pipe, vent pipes, fill connections, concrete pads, saw cuts, sumps, spill containment device, leak detection device, etc.) normally associated with underground storage tanks (UST's).

3.6 Aboveground Storage Tank

REM's field officer performed the visual inspection of the subject site to find evidence of surface or above ground features (e.g., fill pipe, vent pipes, fill connections, concrete pads, saw cuts, concrete pad, drains in vicinity, etc.) normally associated with aboveground storage tanks (AST's). Visual observation also includes the inspection to identify any surface markings indicating the existence of aboveground product pipelines. No evidence on the presence of any on-site aboveground storage tank was identified.

3.7 Fuel Islands

The visual inspection of the subject site revealed no evidence of fuel islands or dispensers either in operation or abandoned.

3.8 Hydraulic Hoist Unit

The visual inspection of the subject site revealed no presence of underground hydraulic hoist units within the subject site premise.

3.9 Hazardous Materials/Petroleum Products Storage & Handling

Except some containers for household maintenance chemicals, no containers storing automotive or industrial batteries, pesticides, paints or chemicals seemingly exhibiting toxic hazards were identified present at the time of site inspection. No significant oil or chemical staining was noticed present around any containers. No major spills, leakage, or staining were observed throughout the overall building areas and outdoor grounds. Concrete/asphalt pavement surfaces appeared impermeable where no major cracks or crevices were found in the areas of product storage and handling.

3.10 Other Containers

No other containers indicating any sign of environmental concern were observed during the site inspection.

3.11 Hazardous Waste Treatment, Storage, Disposal (TSD)

No storage, treatment, or disposal of hazardous waste was found during the site investigation. No severely improper waste stream processing or disposal practices were observed on the subject property.

3.12 Distress Vegetation

Planters and vegetation in the vicinity of and within the subject site were found well maintained on bare soil or within separate planters in relatively good appearance with no sign of chemical stress or unnatural appearance.

3.13 Stockpiled Soils

REM's site inspection did not reveal any evidence of stockpiled soils on the ground of subject property.

3.14 Wastewater Treatment Unit / Clarifier

No underground industrial wastewater treatment facility, i.e., clarifier was observed on the subject property during the site visit.

Storm water drainage system in the close proximity of the subject area did not identify any abnormal accumulation of petroleum or chemical run-off or foreign materials. No unusual blockage of the storm-water control system was observed during the site visual investigation on the outdoor parking lot or surface areas. REM recommends no additional investigation on described storm-water systems at the subject property.

3.15 Solid Waste Disposal

No improper activities of treatment or disposal of hazardous, medical, or toxic wastes are performed on the subject site. Concrete/asphalt pavement surfaces appeared to serve as impermeable structure where no major cracks or crevices were found in the areas of waste disposal and handling, if any.

3.16 Wells

REM's site walk-through did not discover any irrigation wells, injection wells, abandoned wells, groundwater-monitoring wells, dry wells, septic wells oil wells, gas wells, domestic water wells, other-monitoring wells on the subject premises.

3.17 Underground Pipelines

REM's site inspection did not reveal any evidence of underground pipelines beneath the ground of subject property, other than public utility lines such as sewer, power, and electric lines, for which public "dig-alert" service would easily identify upon 48-hour telephone notice in advance.

3.18 Boilers & HVAC Systems

The subject site buildings' water heater and HVAC system is comprised of boiler and radiators, while the primary fuel source is utilized from natural gas, electricity. No UST fuel or petroleum product stored in tank is used for said heater and HVAC operation.

3.19 Visual Indication of Spills, Leakage, Staining

REM's site inspection did not reveal any evidence of on-site or off-site spills, leakages, or staining significant enough to pose immediate environmental concern onto the subject property. No significantly stained catch basins, drip pads, or sumps were observed. There were no major spills around surface drains, pipes, gutters, spouts, or tubes, if any, at the time of site investigation.

3.20 Soil Staining or Surface Staining on Unpaved/Natural Lands

No staining or surface staining on the bare soil or unpaved lands were identified during the site investigation.

3.21 Pits, Ponds, Lagoons

No visible evidence of wetlands such as pits, ponds, lagoons, or any other water bodies, was observed within the subject property's boundary lines.

3.22 Herbicides/Pesticides

Based on information presented in Section 2.4, from 1949 to the early 2010's, the 7934 Lankershim Blvd Sub-Lot (in the main portion of the site) was occupied by a plant nursery. According to REM's past experience with subsurface investigations conducted on land with agricultural usage, typical pesticide concentrations detected in soil samples pose no significant risk, i.e., a risk that results in one excess cancer risk in an exposed population of 1,000,000 for commercial, industrial, and residential exposures.

3.23 Radon

Radon sources can be found from earth and rock beneath building structures, well water, and building materials themselves. Though there is no immediate health effect, it is believed to account for approximately 10% of lung cancer deaths in the United States. Estimated national average is 1.5 picocuries per liter of air, however, levels as high as 200 picocuries per liter in some commercial buildings can be found. USEPA and California Department of Health Services' Radon Survey Interim Results report shows different U.S. regions according to general geological and climate information, where Region 9 includes Imperial, Los Angeles, Orange, Riverside, San Bernardino and San Diego Counties.

According to the California EPA, Los Angeles and Riverside County is classified as a "Zone 2" county having a predicted average screening level between 2-4 picocuries per liter of air. Orange and San Diego County is under Zone 3, having the level less than 2 picocuries/L, and Ventura County as Zone 1 has the level greater than 4 picocuries/L.

If a property region reportedly has radon concentration below 4 picocuries per liter of air in 99.5% of homes within the region, then, it is not likely impacted by the presence of radon gas, considering EPA action limit of 4 picocuries per liter of air volume. REM is not contracted to perform the testing of radon level on the subject property, thus the delineation of radon level is beyond the scope of the service covered in this report.

4. NEIGHBORING PROPERTIES

4.1 Adjacent/Adjoining Businesses

For the scope of this assessment, properties are defined and categorized based upon their physical proximity to the subject property. An adjoining property is any real estate property whose border is contiguous or partially contiguous with the subject properties, or that would be if the properties were not separated by a roadway, street, public thoroughfare, river, or stream.

The subject site is bordered by following adjoining properties:

North: Immediately by Strathern Street, and then by residences

Northwest: The roughly "L"-shaped subject property engulfs a roughly E-W trending rectangular-shaped 7980 Lankershim property (occupied by Burger King) at the southeastern corner of Lankershim Blvd and Strathern Street to its northwest

East: By residences

South: By Schiro's Collision Repair (7908 Lankershim Blvd) to the west and residences to the east

West: Immediately by Lankershim Boulevard, and then by various auto repair/parts properties

4.2 Historical Hazardous Substance Usage in Neighboring Properties

REM's field engineer contacted the following public agencies to find any records of former operation of gasoline UST or any other hazardous substances in the vicinity of the subject site premise:

- California Regional Water Quality Control Board – Los Angeles Region
- California Department of Toxic Substances Control

No locations in the neighborhood within close proximity are considered to pose any environmental threat to the subject property, based upon data obtained via NETR governmental records database and the conducted agency records search.

5. GOVERNMENT RECORDS SEARCH AND POTENTIAL OFF-SITE CONTAMINATION SOURCES

5.1 Historical Background and Scope of Coverage

Since the early 1970s, environmental agencies have been tracking the compliance of many facilities with the various laws that have been promulgated to halt the pollution of air, land and water. More recently, records have been maintained documenting spills of hazardous materials and the locations of known waste sites or regulated waste handling facilities. The following sections summarizes REM's review of database search of available records at the local, state and federal level and highlights the approximate location of such sites with respect to the subject property.

The conducted government record search was performed to aid:

1) Identification of facilities, located within a one-mile radius of the subject property, which might pose a potential threat to the subsurface environment at the subject property; and

2) Identification of any environmental violation notices associated with activities conducted at the subject property itself. The following lists were reviewed for sites within one mile of the property:

5.2 Database Sources

A. Federal Sources

- United States Environmental Protection Agency (U.S. EPA), Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS)
- U.S. EPA, National Priority List (NPL)
- Resource Conservation and Recovery Act (RCRA) Federal TSD Facilities
- Federal Emergency Response Notification System (ERNS)
- CERCLA Site Enforcement Tracking System
- RCRA Violators List (CORRACTS)
- U.S. EPA Federal Enforcement Docket
- Toxic Release Inventory System (TRIS)
- No Further Remedial Action Planned (NFRAP)

The CERCLIS is the EPA compilation of sites for which the EPA has evidence of, or is investigating, a release or threatened release, of hazardous substances which may be subject to review in accordance with the terms and conditions of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (Superfund Act). Sites to be included are identified primarily by the reporting requirements of hazardous substances including degreasing solvents, oily waste, acid solutions, alkaline solutions, and heavy metal solutions, Treatment, Storage and Disposal (TSD) facilities and releases larger than specific Reportable Quantities (RQ), established by EPA.

An NPL site is an uncontrolled or abandoned hazardous waste site identified for priority remedial action under Superfund Program. Such prioritized sites with significant risk to human health and the environment receive remedial funding under the Comprehensive Environmental Response Conservation and Liability Act (CERCLA). RCRA generator/TSD list is a compilation of hazardous waste generating facilities which have obtained an identification number from EPA.

ERNS database is a national computer database used to store information on unauthorized release of oil and hazardous substances. The program is a cooperative effort of the Environmental Protection Agency, the Department of Transportation Research and Special Program Administration's National Transportation System Center and the National Response Center. There are primarily five Federal statues that requires release reporting: CERCLA Section 103; the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304; the Clean Water Act of 1972 (CWA) Section 311(b)(3); and the Hazardous Material Transportation Act of 1974 (HMTA) Section 1808 (b).

RCRA Violators List (CORRACTS): The Resource Conservation and Recovery Act of 1976 provides for "Cradle to Grave" regulation of hazardous wastes. RCRA requires regulation of hazardous waste generators, transporters, and TSD sites. Evaluation to potential violations, ranging from manifest requirements to hazardous waste discharges, is typically conducted by the US EPA. This database is also known as Corrective Action Report (CORRACTS).

Toxic Release Inventory System (TRIS): TRIS compiles database for a property having had a release of chemical compound, whose listing reflects permitted air releases rather than a release to soil or groundwater.

B. California State Sources

- State of California Office of Planning and Research (CORTESE), the State of California equivalent of CERCLIS
- Leaking Underground Storage Tanks (LUST)
- Solid Waste Information System (SWIS)
- Annual Work Plan (previously known as Bond Expenditure Plan), the State of California equivalent of NPL
- California Historical Abandoned Site Survey Program (CALSITES)

CALSITES: The Historical Abandoned Site Survey (HASS) Program, formerly the California Abandoned Sites Program Information System – ASPIS, identified certain potential hazardous waste sites. The identification of these sites was generally not made via sampling and site characterization, but as a result of file searches and windshield surveys.

No Further Action sites are also on the CALSITE list which has been marked for no further action by the California Environmental Protection Agency, Department of Toxic Substance Control (DTSC) in accordance with California Health & Safety Code.

CORTESE: This database is a consolidation of information from various sources. It is maintained by the State Office of Planning and Research and lists potential and confirmed hazardous waste or substances sites.

LUST(s): The Leaking Underground Storage Tanks (LUST) Information System is maintained by the State Water Resource Board pursuant to California Health & Safety Code.

SWIS (Solid Waste Information System): As legislated under Solid Waste Management and Resource Recovery Act of 1972, the California Waste Management Board maintains list of certain facilities, i.e. Active solid waste disposal sites, Inactive or Closed solid waste disposal sites and Transfer facilities.

AW (Annual Work Plan previously known as Bond Expenditure Plan): The California Health & Safety code requires the California EPA to develop a site-specific expenditure plan as the basis for an appropriation of California Hazardous Substance Cleanup Bond Act of 1984 funds. The Agency is also required to update annually and report any significant adjustments to the Legislature on an ongoing basis. The plan identifies California hazardous waste sites targeted for cleanup by responsible parties, the California and the Federal Environmental Protection Agency over the next coming years.

C. Regional Sources

- LUST - Regional
- Toxic Releases (NT)
- California Regional Water Resources Control Board, Solid Waste Assessment Test (SWAT)
- Well Investigation Program

NT (Toxic Releases): The California Regional Water Quality Control Boards or local Department of Health & Safety Services keeps track of toxic releases to the environment. These lists are known as Unauthorized Releases, Spill, Leaks, Investigation and Cleanups, Non-Tank Releases, Toxic List or similar, depending on the local agency

SWAT (Solid Waste Assessment Test): This program requires that disposal sites with more than 50,000 cubic yards of waste provide sufficient information to the regional water quality control board to determine whether or not the site has discharged hazardous substances which will impact the environment. Site operators are required to file Solid Waste Assessment Test reports on a staggered basis. Operators submit water quality tests to the Regional Water Quality Control Board, describing surface and groundwater quality and supply; and the geology within 1 mile of the site. Air quality tests are submitted to the local Air Quality Management District or Air Pollution Control District.

D. Other Sources

- RCRA-Generator
- RCRA-TSD Facilities

- SWLF (Solid Waste Landfill)

RCRA-G: The EPA regulates generators of hazardous material through the Resource Conservation and Recovery Act (RCRA). All hazardous waste generators are required to notify EPA of their existence by submitting the Federal Notification of Regulated Waste Activity Form or a State equivalent form. The notification form provides basic identification information and specific waste activities.

RCRA-D: The EPA regulates the treatment, storage and disposal of hazardous material through the Resource Conservation and Recovery Act (RCRA). All hazardous waste TSD facilities are required to notify EPA of their existence by submitting the Federal Notification of Regulated Waste Activity Form or a State equivalent form.

SWLF: The California Waste Information system database consists of both open as well closed and inactive solid waste disposal facilities and transfer stations pursuant to the Solid Waste Management and Resource Recovery Act of 1972. Generally the California Integrated Waste Management Board learns of locations of disposal facilities through permit applications and from local enforcement agencies.

5.3 Case Study References

A. Case-Closure

If sites are listed on the California Leaking Underground Storage Tank (LUST) database with a "case closed (no further remedial actions required)" status, it shall be interpreted as follows. The identified contamination at such sites was mitigated to a degree that the governing agency believed that these sites do not pose apparent concern/threat to the subsurface environment of the neighboring area.

B. Lawrence Livermore National Laboratory Reports on LUFT's

According to Lawrence Livermore National Laboratory / University of California Reports on Leaking Underground Fuel Tanks (LUFT's), approximately ninety percent of dissolved petroleum products is found less than 280 feet in distance from the origination source, and most of these plumes are either stable or decreasing in distance. And seventy percent of the plume is in shallow groundwater less than 25 feet below the ground surface.

C. Groundwater Flow Gradient

Environmentally-concerned sites located not directly at the up-gradient from the subject site can be deleted from anticipated target sites, since contamination from identified sites is unlikely to migrate along the groundwater flow direction to affect the subsurface environment underneath the subject site (Section 2.6 – Hydrogeologic Setting).

5.4 Potential Source of Contamination

Sites identified on referenced agency listing within the one-mile radius from the subject

property are tabulated in the Appendix D of this Report. As shown in Appendix D, there is only one Leaking Underground Storage Tank (LUST)/Spills site (Arco #5200, 8004 Lankershim Blvd, located at the northeastern corner of Lankershim Blvd and Strathern Street, approximate 300 feet north of the western portion of the subject property) within the immediate vicinity (< 1/8 mile) of the subject site being identified as of potentially environmental concern.

The Arco #5200 site is listed on LUST/Spills databases with a "Case Closed" status. The former UST leakage/spills case at the Arco #5200 site was apparently satisfactorily treated under the supervision of the lead agency to the degree that no apparently significant environmental concerns for its neighboring areas are likely being induced from remaining untreated UST leakage/spills, if any, at the Arco #5200 site.

As also shown In Appendix D, the subject site is situated within the North Hollywood wellfield area of the San Fernando Groundwater Basin which has been classified by U.S. EPA as National Priority List (NPL) Cleanup site. Brief discussions of historic background of the San Fernando Groundwater Basin NPL site are presented below.

In 1983, the California Legislature passed Assembly Bill (AB) 1803, which mandates a program for monitoring organic chemical contamination in wells used by large public water systems. California Department of Health services (CDHS) implemented the program starting in January 1984. More than 300 drinking water wells in the San Gabriel Valley and the San Fernando Valley regions have been tested under the AB 1803 program. These wells were analyzed for volatile organics, trihalomethanes, triazines, semi-volatile organic compounds, lindane, and organochloride pesticides. Contamination of groundwater by trichloroethene (TCE) and tetrachloroethene (PCE) was found in many test wells within the San Gabriel Valley and the San Fernando Valley Groundwater Basins.

TCE and PCE are primarily used in manufacturing processes and as solvents and metal degreasers. Both compounds are suspected carcinogens. After the contamination of groundwater by TCE and PCE in the San Gabriel Valley and the San Fernando Valley Basins was detected, in 1984, Federal EPA placed the San Gabriel Valley and the San Fernando Valley Groundwater Basins on EPA's National Priority List of hazardous waste sites, making them eligible for cleanup funding under the federal Superfund program. Currently, U.S. EPA funds the cleanup of groundwater within these two basins. However, U.S. EPA also funds the California Regional Water Quality Control Board - Los Angeles Region (RWQCB-LA) AB 1803 Follow-Up (or Well Investigation) Program to identify potential responsible parties (PRP's) for the regional groundwater degradation to share financial burden of costly cleanup. Historic site usage information search has been used by the RWQCB-LA Well Investigation Program (WIP) as a tool to identify sites within the San

Gabriel Valley and the San Fernando Valley regions with past on-site manufacturing or business operations potentially employing TCE and PCE.

REM searched the RWQCB-LA WIP master facilities list file available at www.swrcb.gov/losangles/resources/databases/SGV_SFV_CaseList%20(7-1-09).pdf and found the subject site addresses are not listed on the said master list file. Apparently, the RWQCB-LA determined that past/present activities at the subject property were/are unlikely to be responsible for the identified regional groundwater degradation and no subsurface investigations are deemed required based on the RWQCB-LA's assessment.

5.5 UST, Disposal Sites, and Generators

As also summarized in Appendix D, there are one site (Schiro's Motor Sales, 7908 Lankershim Blvd, located immediately to the south of the western portion of the subject property) listed on RCRA small quantities hazardous waste generators database and one site (the Arco #5200 site) listed on permitted Underground Storage Tank (UST) database compiled by the State Water Resources Control Board, located within 1/8-mile radius of the subject site. Upon reviewing the information regarding the said facilities obtained via computer search, the conclusion was drawn that the subsurface environment at the subject site is not likely to have been impacted by operations of the said facilities.

6. SUMMARY AND CONCLUSION

- The subject site at 7934 Lankershim Boulevard (APN 2311-006-019, 028, 030, 035, 038, 039; 2311-007-001 through 004) is a roughly "L"-shaped lot engulfing the roughly E-W trending rectangular-shaped 7980 Lankershim property (occupied by Burger King) at the exact southeastern corner of (the N-S trending) Lankershim Blvd and (the E-W trending) Strathern Street to its northwest in the North Hollywood geographic area of the city of Los Angeles, California. The subject site can be generally divided into following three sub-lots (see Figure 3 for location/configuration of each sub-lot):

  11650-11664 Strathern Street Sub-Lot (APN 2311-006-019, 030, 035, & 038; in the northeastern portion of the site) - A roughly E-W trending rectangular-shaped sub-lot on the southern block of (the E-W trending) Strathern Street between Lankershim Blvd to the west and Beck Avenue to the west; and occupied by four dwellings with, from east to west, 11650, 11656, 11660, and 11664 Lankershim Blvd addresses

  7934 Lankershim Blvd Sub-Lot (APN 2311-006-028, 039; 2311-007-001 through 003; in the main portion of the site) - A roughly "Zig-Zag"-shaped with its main portion on the eastern block of (the N-S trending) Lankershim Blvd between Strathern Street to the north and Arminta Street to the south. The sub-lot is mainly improved with a single-story roughly N-S trending rectangular-shaped commercial building in the central part of its western portion; N-S trending rectangular-shaped asphalt-paved parking spaces/driveways along its west side; and paved/unpaved building material yards for remaining portions of the sub-lot.

  7916/7918 Lankershim Blvd Sub-Lot (APN 2311-007-004; at the southwestern corner of the site) - A roughly E-W trending rectangular-shaped sub-lot located on the eastern block of (the N-S trending) Lankershim Blvd between Strathern Street to the north and Arminta Street to the south. The sub-lot is mainly improved with a single-story roughly rectangular-shaped office building in its southwestern portion; and asphalt/concrete-paved parking spaces/driveways for its remaining portions.

  No pits, ponds, swamps, dry wells, or lagoons were observed on the subject property. No apparently significant surface staining was observed on the paved/unpaved outdoor areas and the building areas of the site.

  At the time of site inspection on November 20, 2017, various residences occupied the 11650-11664 Strathern Street Sub-Lot. Prime Hardscape Center building materials supplier occupied the 7934 Lankershim Blvd Sub-Lot; and Recovery Insurance occupied the 7916/7918 Lankershim Blvd Sub-Lot.

- Various historic sources listed in Section 2.4 reveal the following development/ occupancy history for the subject site:

  Prior to 1941 - The site apparently remained vacant and undeveloped
  1941 - The 7916/7918 Sub-Lot was first developed into its current office building and its associated paved parking setting; and the sub-lot has been occupied by various professional offices since
  1949 - The 7934 Lankershim Blvd Sub-Lot was first developed into a plant nursery
  1949 to the early 2010's – A plant nursery occupied the 7934 Lankershim Blvd Sub-Lot
  1956 - The 11650-11664 Strathern Street Sub-Lot was first developed into its current 4-dwelling setting and has been occupied by various residences since

  Aa presented, from 1949 to the early 2010's, the 7934 Lankershim Blvd Sub-Lot (in the main portion of the site) was occupied by a plant nursery. According to REM's past experience with subsurface investigations conducted on land with agricultural usage, typical pesticide concentrations detected in soil samples pose no significant risk, i.e., a risk that results in one excess cancer risk in an exposed population of 1,000,000 for commercial, industrial, and residential exposures.

- According to the conducted government records search (see Section 5.0), the subject property was not recognized being listed on the following environmental regulatory database record research (NETR database): NPL, RCRA-TSD, CERCLIS, NFRAP, RCRA-G, ERNS, CORRACTS, CORTESE, CALSITES, LUST, UST, and SWF.

- Based on the conducted government records search, there is only one Leaking Underground Storage Tank (LUST)/Spills site (Arco #5200, 8004 Lankershim Blvd, located at the northeastern corner of Lankershim Blvd and Strathern Street, approximate 300 feet north of the western portion of the subject property) within the immediate vicinity (< 1/8 mile) of the subject site being identified as of potentially environmental concern.

  The Arco #5200 site is listed on LUST/Spills databases with a "Case Closed" status. The former UST leakage/spills case at the Arco #5200 site was apparently satisfactorily treated under the supervision of the lead agency to the degree that no apparently significant environmental concerns for its neighboring areas are likely being induced from remaining untreated UST leakage/spills, if any, at the Arco #5200 site.

  As also shown In Appendix D, the subject site is situated within the North Hollywood wellfield area of the San Fernando Groundwater Basin which has been classified by U.S. EPA as National Priority List (NPL) Cleanup site. Brief discussions of historic background of the San Fernando Groundwater Basin NPL site are presented below.

In 1983, the California Legislature passed Assembly Bill (AB) 1803, which mandates a program for monitoring organic chemical contamination in wells used by large public water systems. California Department of Health services (CDHS) implemented the program starting in January 1984. More than 300 drinking water wells in the San Gabriel Valley and the San Fernando Valley regions have been tested under the AB 1803 program. These wells were analyzed for volatile organics, trihalomethanes, triazines, semi-volatile organic compounds, lindane, and organochloride pesticides. Contamination of groundwater by trichloroethene (TCE) and tetrachloroethene (PCE) was found in many test wells within the San Gabriel Valley and the San Fernando Valley Groundwater Basins.

TCE and PCE are primarily used in manufacturing processes and as solvents and metal degreasers. Both compounds are suspected carcinogens. After the contamination of groundwater by TCE and PCE in the San Gabriel Valley and the San Fernando Valley Basins was detected, in 1984, Federal EPA placed the San Gabriel Valley and the San Fernando Valley Groundwater Basins on EPA's National Priority List of hazardous waste sites, making them eligible for cleanup funding under the federal Superfund program. Currently, U.S. EPA funds the cleanup of groundwater within these two basins. However, U.S. EPA also funds the California Regional Water Quality Control Board - Los Angeles Region (RWQCB-LA) AB 1803 Follow-Up (or Well Investigation) Program to identify potential responsible parties (PRP's) for the regional groundwater degradation to share financial burden of costly cleanup. Historic site usage information search has been used by the RWQCB-LA Well Investigation Program (WIP) as a tool to identify sites within the San Gabriel Valley and the San Fernando Valley regions with past on-site manufacturing or business operations potentially employing TCE and PCE.

REM searched the RWQCB-LA WIP master facilities list file available at www.swrcb.gov/losangles/resources/databases/SGV_SFV_CaseList%20(7-1-09).pdf and found the subject site addresses are not listed on the said master list file. Apparently, the RWQCB-LA determined that past/present activities at the subject property were/are unlikely to be responsible for the identified regional groundwater degradation and no subsurface investigations are deemed required based on the RWQCB-LA's assessment.

- In conclusion, we have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E-1527-13 of 7935 Lankershim Blvd, North Hollywood, CA, the property. This assessment has revealed no evidence of apparently significant environmental concern in connection with the property and no Phase II subsurface investigation is recommended for the subject site.

7. LIMITATIONS AND CERTIFICATION STAMP

The opinion expressed herein is based on the information collected during our study, our present understanding of the site conditions and our professional judgment in light of such information at the time of preparation of this opinion. The report is a professional opinion work, and no warranty is either expressed, implied or made as to the conclusions, advice and recommendations offered in this report. Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Engineers and Geologists practicing in this or similar localities.

The findings, conclusions and recommendations in this report are considered valid as of the present date. However, changes in the conditions of the property can occur with the passage of time, due to natural process or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standard may occur. REM is not responsible for conditions found at or beneath the subject property or adjacent properties. Accordingly, portions of this report may be invalidated wholly or partially by the changes beyond our control.

This report is prepared for the exclusive use of the client, and opinions/recommendations contained in this report apply only to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated.

Report Prepared by:
ROBIN ENVIRONMENTAL MANAGEMENT

Robin Chang

Robin Chang, Ph.D., P.G.
Project Manager



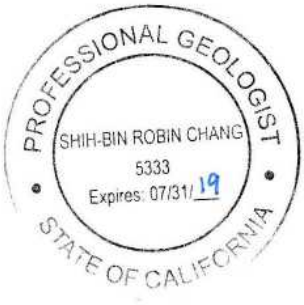
8. QUALIFICATION STATEMENT FOR PERSONNEL CONDUCTING THE PHASE I ASSESSMENT

Since Robin Chang, the personnel conducting the Phase I Environmental assessment is a California State Registered Professional Geologist, Robin Chang declares that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Sec. 312.10 of 40 CFR. I have the specific qualifications based on education, training, experience, and license to assess a property of the nature, history, and setting of the subject property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

ROBIN ENVIRONMENTAL MANAGEMENT

Robin Chang

Robin Chang, Ph.D., P.G.
Project Manager



APPENDICES

APPENDIX A

FIGURES & PHOTOS

FIGURE 1

SITE PHOTOS

Photo 1

Viewing the site western portion from near the northwestern corner of the site (facing south-southeast)



Photo 2

Viewing the site west side from near the southwestern corner of the site (facing north-northeast)



Photo 3

Paved parking on the 7916/7918 Lankershim Blvd Sub-Lot with building materials yard in the southern portion of the 7934 Lankershim Blvd Sub-Lot on the background; facing east



Photo 4

North side view of the 11650-11664 Strathern Street Sub-Lot; facing east-southeast



Photo 5

Typical view building materials yard on the 7934 Lankershim Blvd Sub-Lot



Photo 6

Residences, across Strathern Street, to the north of the site; facing northwest



Photo 7

Residences, across Strathern Street, to the north of the site; facing northwest



Photo 8

Roughly E-W trending rectangular-shaped 7980 Lankershim property (occupied by Burger King) at the southeastern corner of Lankershim Blvd and Strathern Street and engulfed by the roughly "L"-shaped subject property to its northwest; with the Arco #5200 site at the northeastern corner of Lankershim Blvd and Strathern Street on the background (facing northeast)



Photo 9

North side view of residences to the east of the northern portion of the site; facing west-southwest



Photo 10

South side view of residences to the east of the central portion of the site; facing east-northeast



Photo 11

Schiro's Collision Repair (7908 Lankershim Blvd) to the south of the western portion of the site; facing south-southeast



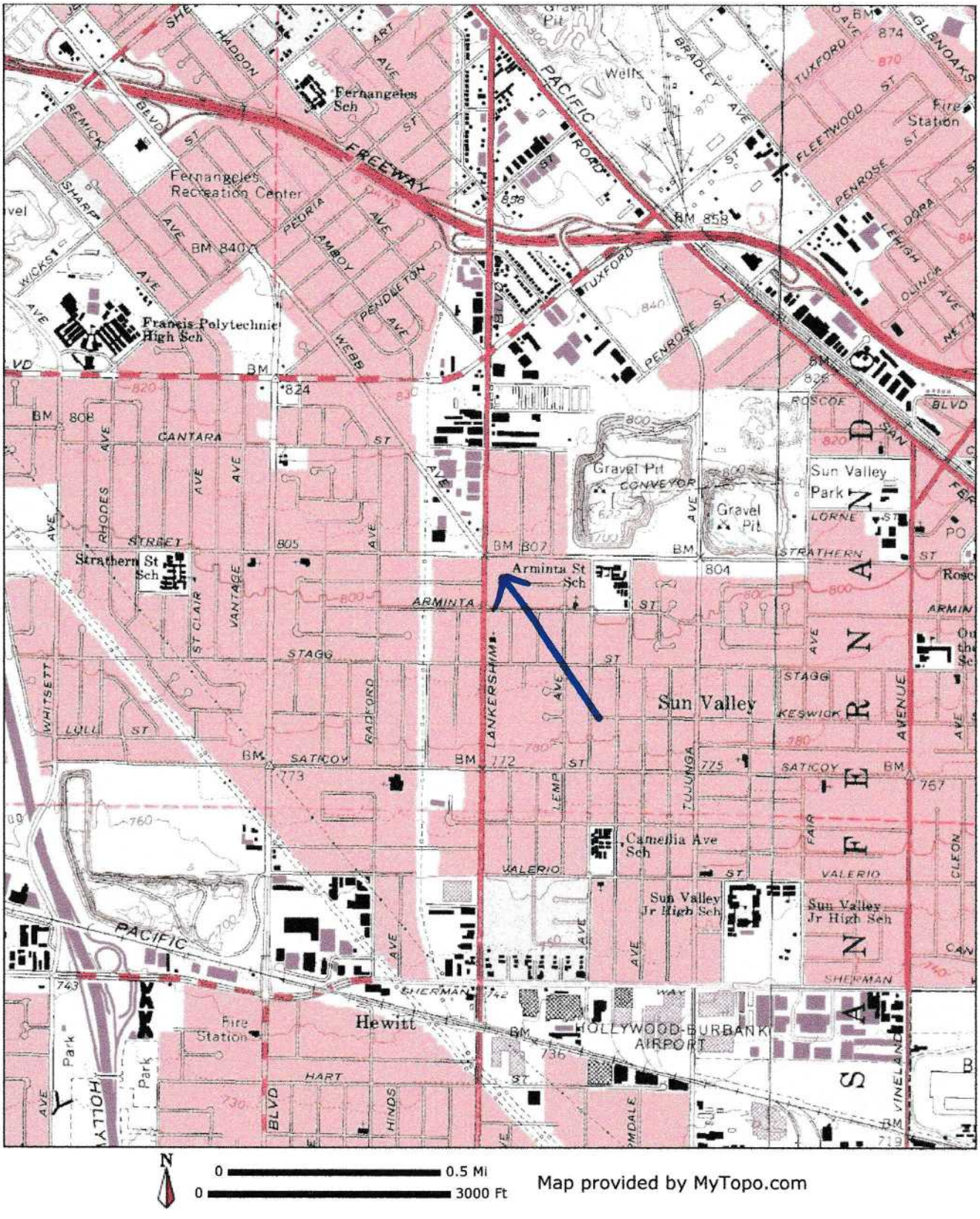
Photo 12

Various auto repair/parts properties, across Lankershim Blvd, to the west of the site; facing northwest



FIGURE 2

SITE LOCATION MAP



Map provided by MyTopo.com

FIGURE 3

RECENT AERIAL PHOTO SHOWING SITE AND ITS VICINITY GENERAL LAYOUT

7934 Lankershim Blvd



APPENDIX B

CO. ASSESSOR'S OFFICE RECORDS SUMMARIES

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-006-019
Address:	11650 STRATHERN ST LOS ANGELES CA 91605
Property Type:	Single Family Residential
Region / Cluster:	03 / 03133
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	10/06/2014
Land:	$249,568
Improvements:	$134,621
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

PROPERTY OF THE LANKERSHIM RANCH LAND AND WATER CO LOT ON S LINE OF STRATHERN ST COM E THEREON 404 FT FROM E LINE OF LANKERSHIM BLVD TH E ON SD S LINE 50 FT WITH A UNIFORM DEPTH OF 125 FT S PART OF LOT 24

Building Description

Building Improvement 1

Square Footage:	1,088
Year Build / Effective Year Built:	1956 / 1956
Bedrooms / Bathrooms	2 / 2
Units	1



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-006-030
Address:	11656 STRATHERN ST LOS ANGELES CA 91605
Property Type:	Single Family Residential
Region / Cluster:	03 / 03133
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	12/02/2009
Land:	$320,200
Improvements:	$123,800
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

*LAND DESC IN DOC 0799263,780721
TR=PROPERTY OF THE LANKERSHIM RANCH LAND AND WATER CO(EX OF ST)* POR OF LOT 24

Building Description

Building Improvement 1

Square Footage:	1,088
Year Build / Effective Year Built:	1956 / 1956
Bedrooms / Bathrooms	2 / 2
Units	1



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-006-035
Address:	11660 STRATHERN ST LOS ANGELES CA 91605
Property Type:	Single Family Residential
Region / Cluster:	03 / 03133
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	12/20/2006
Land:	$364,000
Improvements:	$94,700
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

*LAND DESC IN DOC 0283460,770321
TR=PROPERTY OF THE LANKERSHIM RANCH, LAND AND WATER CO(EX OF ST)*POR OF LOT 24

Building Description

Building Improvement 1

Square Footage:	1,468
Year Build / Effective Year Built:	1956 / 1965
Bedrooms / Bathrooms	3 / 3
Units	1



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-006-038
Address:	11664 STRATHERN ST LOS ANGELES CA 91605
Property Type:	Single Family Residential
Region / Cluster:	03 / 03133
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	07/29/2013
Land:	$16,614
Improvements:	$25,323
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

M R 31-39-44 POR OF LOT 24

Building Description

Building Improvement 1

Square Footage:	1,552
Year Build / Effective Year Built:	1956 / 1956
Bedrooms / Bathrooms	3 / 2
Units	1



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-006-028
Address:	7934 LANKERSHIM BLVD LOS ANGELES CA 91605
Property Type:	Commercial / Industrial
Region / Cluster:	24 / 24630
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	07/29/2013
Land:	$159,686
Improvements:	$109,194
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

PROPERTY OF THE LANKERSHIM RANCH LAND AND WATER CO LOT COM AT SW COR OF LOT 1 TR # 22146 TH N 89¢55' W 470 FT TH N ON E LINE OF LANKERSHIM BLVD 114.39 FT TH S ... SEE MAPBOOK FOR MISSING PORTION ... LOT 24

Building Description

Building Improvement 1

Square Footage:	3,400
Year Build / Effective Year Built:	1949 / 1950
Bedrooms / Bathrooms	0 / 0
Units	0

Building Improvement 2

Square Footage:	4,262
Year Build / Effective Year Built:	1967 / 1967
Bedrooms / Bathrooms	0 / 0
Units	0



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-006-039
Address:	7934 LANKERSHIM BLVD LOS ANGELES CA 91605
Property Type:	Commercial / Industrial
Region / Cluster:	24 / 24630
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	07/29/2013
Land:	$104,390
Improvements:	$22,578
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

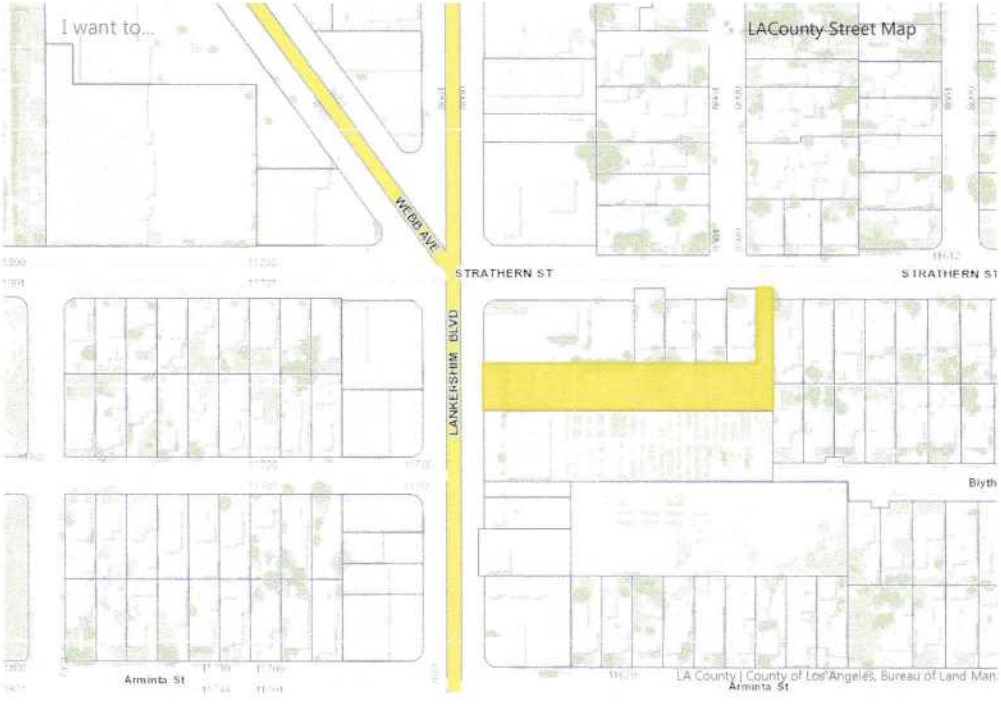
Property Boundary Description

M R 31-39-44 POR OF LOT 24

Building Description

Building Improvement 1

Square Footage:	1,750
Year Build / Effective Year Built:	1955 / 1955
Bedrooms / Bathrooms	0 / 0
Units	1



Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-007-001
Address:	Address Not Available
Property Type:	Single Family Residential
Region / Cluster:	03 / 03133
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	07/29/2013
Land:	$72,433
Improvements:	$2,295
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

PROPERTY OF THE LANKERSH1M RANCH LAND AND WATER CO LOT COM S 314.39 FT AND S 89 DEG 55 M1N E 150 FT FROM 1NTERSECT1ON OF S L1NE OF STRATHERN ST W1TH E L1NE OF ... SEE MAPBOOK FOR MISSING PORTION ... E PART OF LOT 24

Building Description

Building Improvement 1

Square Footage:	240
Year Build / Effective Year Built:	1946 / 1946
Bedrooms / Bathrooms	0 / 0
Units	0



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-007-002
Address:	Address Not Available
Property Type:	Vacant Land
Region / Cluster:	24 / 24630
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	07/29/2013
Land:	$16,031
Improvements:	$0
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

PROPERTY OF THE LANKERSHIM RANCH LAND AND WATER CO LOT ON E LINE OF LANKERSHIM BLVD COM S THEREON 314.39 FT AND S 89°55' E 10 FT FROM S LINE OF ... SEE MAPBOOK FOR MISSING PORTION ... E PART OF LOT 24

Building Description



0 100 200ft

Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-007-003
Address:	7926 LANKERSHIM BLVD LOS ANGELES CA 91605
Property Type:	Vacant Land
Region / Cluster:	24 / 24630
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	07/29/2013
Land:	$31,872
Improvements:	$0
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

PROPERTY OF THE LANKERSHIM RANCH LAND AND WATER CO LOT ON E LINE OF LANKERSHIM BLVD COM S THEREON 339.39 FT AND S 89°55' E 10 FT FROM S LINE OF ... SEE MAPBOOK FOR MISSING PORTION ... E PART OF LOT 24

Building Description



Parcel Details

- Property records are kept at the North District Office
- How frequently is this site updated? (and other FAQs)

Property Information

Assessor's ID No:	2311-007-004
Address:	7918 LANKERSHIM BLVD LOS ANGELES CA 91605
Property Type:	Commercial / Industrial
Region / Cluster:	24 / 24630
Tax Rate Area (TRA):	00013

- View Assessor Map
- View Index map

Recent Sales Information

Latest Sale Date:
Indicated Sale Price:

Search for Recent Sales

2017 Roll Values

Recording Date:	11/30/2010
Land:	$267,220
Improvements:	$21,065
Personal Property:	$0
Fixtures:	$0
Homeowners' Exemption:	$0
Real Estate Exemption:	$0
Personal Property Exemption:	$0
Fixture Exemptions:	$0

- 2017 Annual taxes
- Property tax payment FAQs
- Estimate supplemental taxes

Property Boundary Description

PROPERTY OF THE LANKERSHIM RANCH LAND AND WATER CO LOT COM N 150 FT FROM INTERSECTION OF E LINE OF LANKERSHIM BLVD WITH N LINE OF ARMINTA ST TH N ON ... SEE MAPBOOK FOR MISSING PORTION ... LOT 24

Building Description

Building Improvement 1

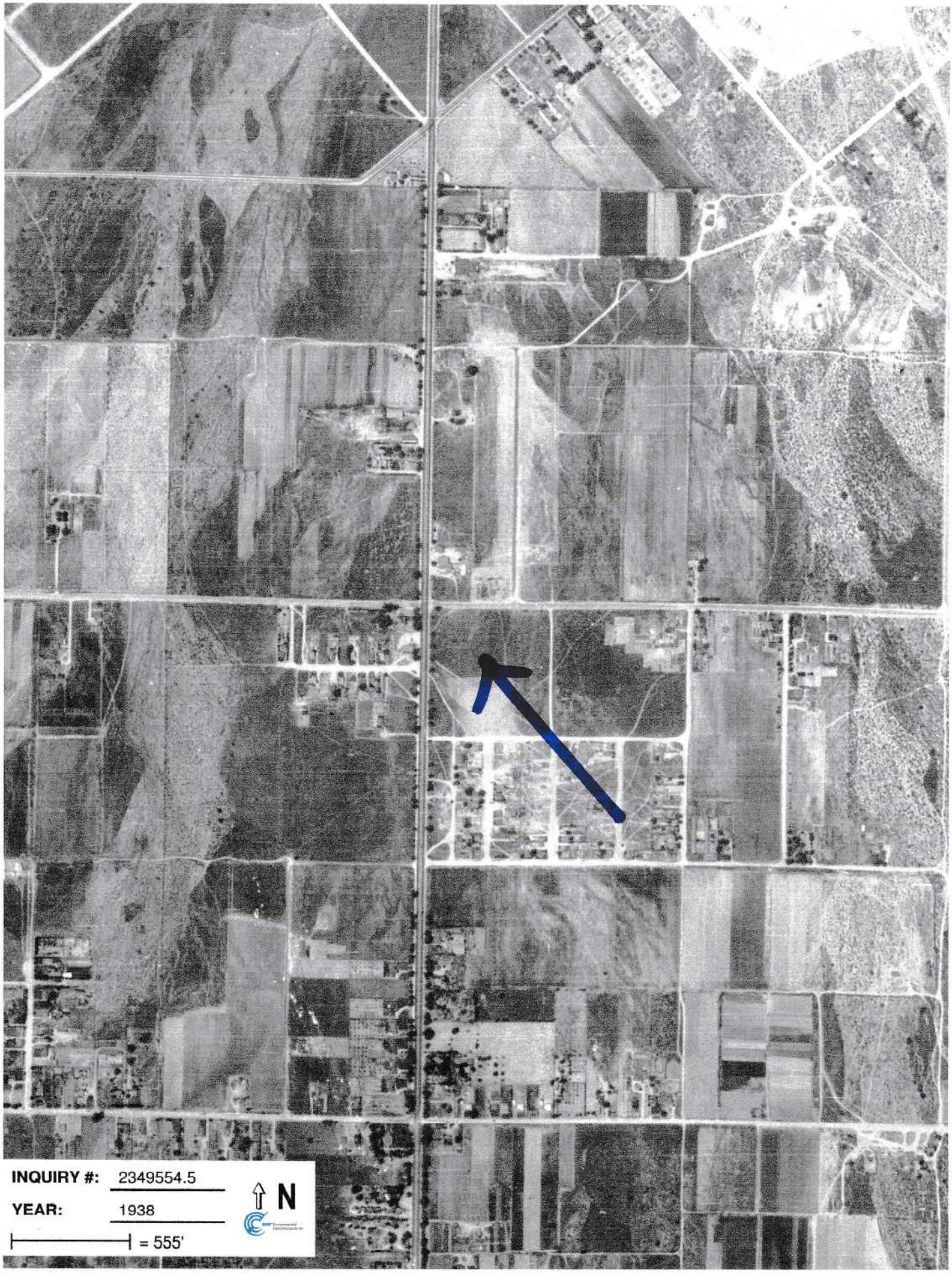
Square Footage:	1,520
Year Build / Effective Year Built:	1941 / 1946
Bedrooms / Bathrooms	0 / 0
Units	2

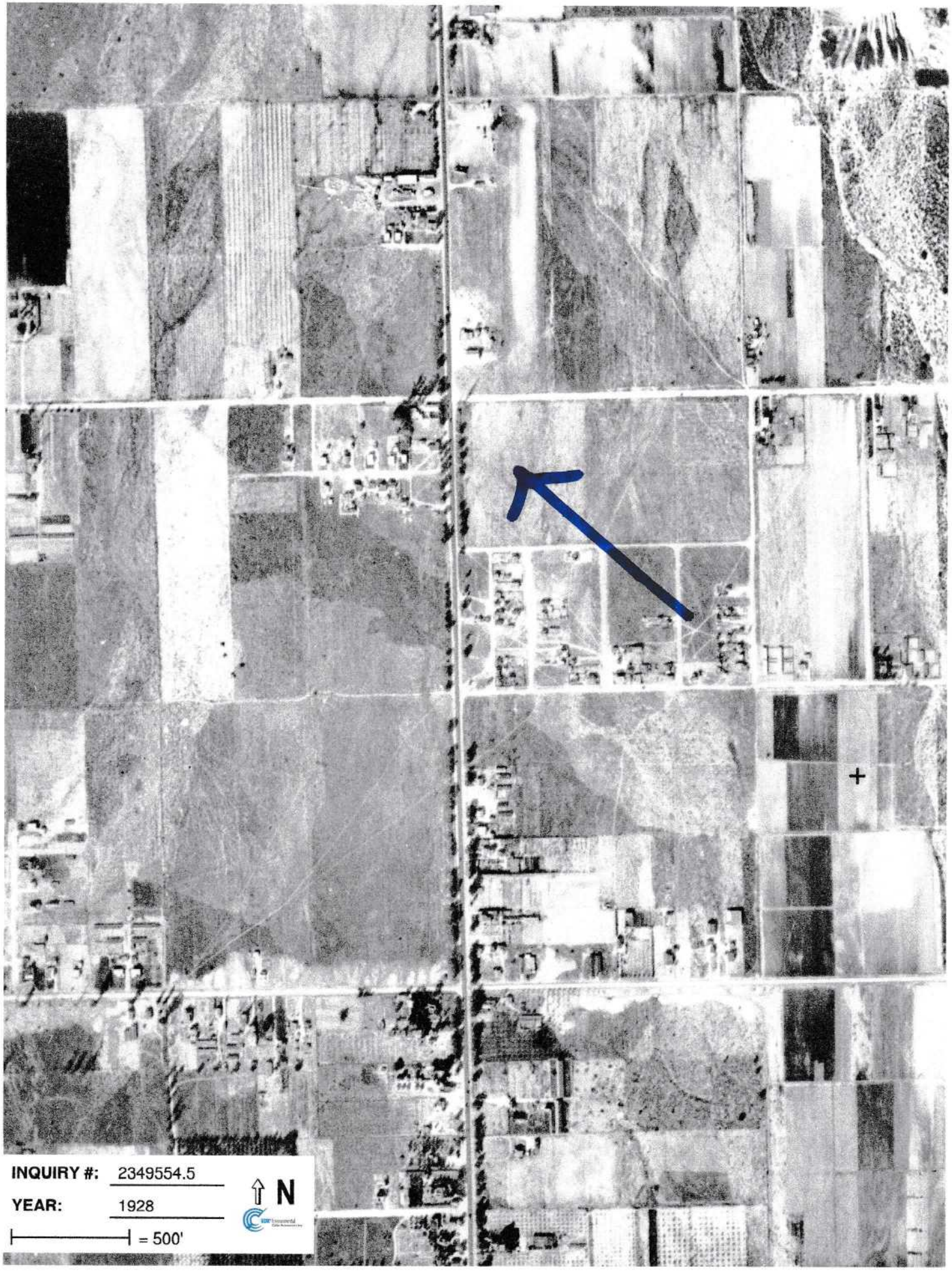


0 100 200ft

APPENDIX C

HISTORIC AERIAL PHOTO RECORDS


INQUIRY #: 2349554.5
YEAR: 1938
N
= 555'



INQUIRY #: 2349554.5

YEAR: 1928

N

= 500'


INQUIRY #: 2349554.5
YEAR: 1956
= 400'
N

APPENDIX D

GOVERNMENT RECORDS SEARCH DATABASE

7934 LANKERSHIM BLVD, LOS ANGELES, CA
Prepared for: REM

Wednesday, November 22, 2017

Environmental Radius Report

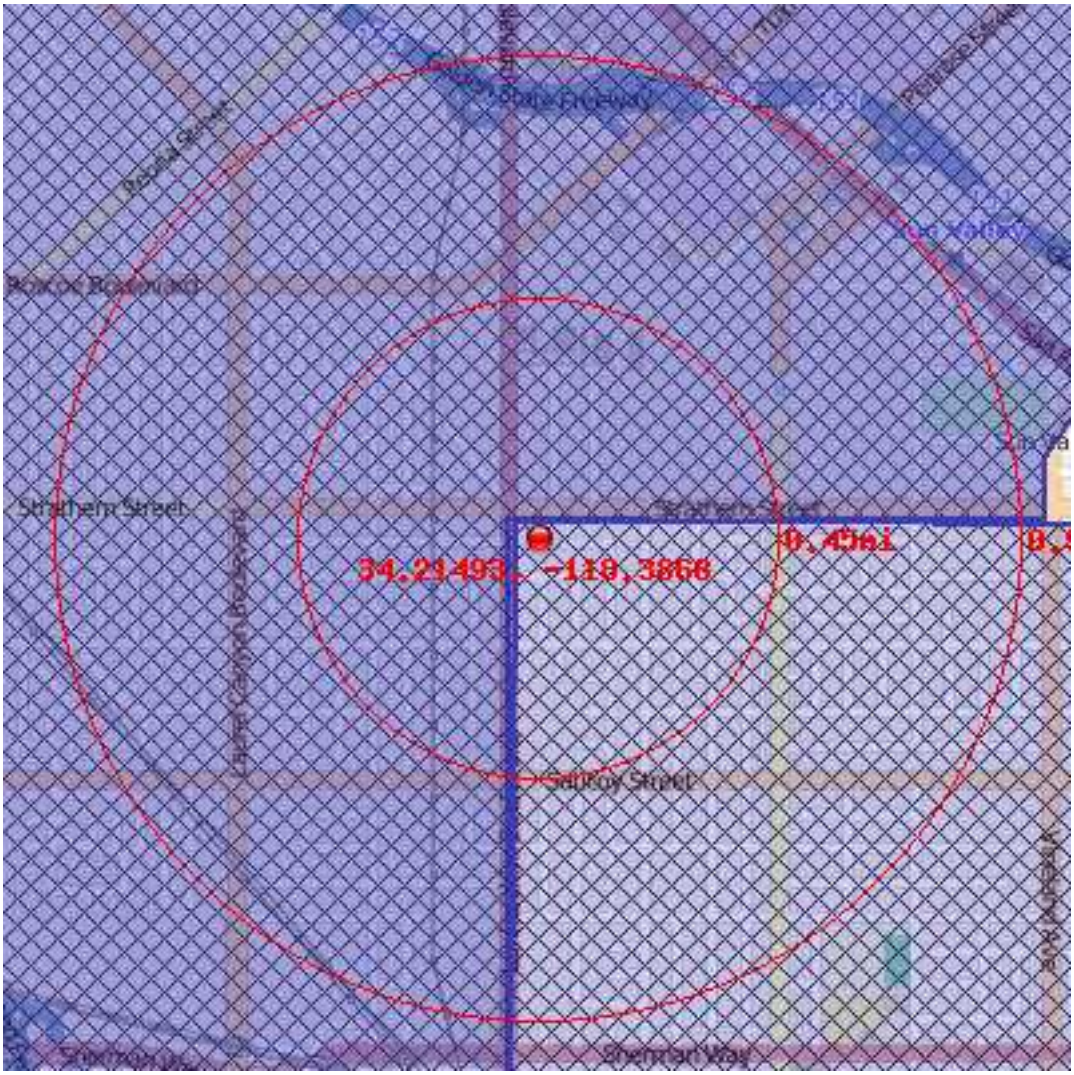
NETROnline

2055 E. Rio Salado Pkwy
Tempe, AZ 85381
480-967-6752

Summary

	< 1/4	1/4 - 1/2	1/2 - 1
National Priorities List (NPL)	1		
CERCLIS List			
CERCLIS NFRAP			
RCRA CORRACTS Facilities			
RCRA non-CORRACTS TSD Facilities			
Federal Institutional Control / Engineering Control Registry			
Emergency Response Notification System (ERNS)		1	5
US Toxic Release Inventory			9
US RCRA Generators (CESQG, SQG, LQG)	6	9	58
US ACRES (Brownfields)			
US NPDES			3
US Air Facility System (AIRS / AFS)			3
CA Registered Underground Storage Tanks	1	2	19
CA Leaking Underground Storage Tanks	1		16
CA CERCLIS Equivalent			
CA NPL Equivalent			
CA Hazardous Waste Sites	1		3
CA Activity Use Restrictions			
CA Spills, Leaks, Investigations, and Cleanups	1		24
CA Solid Waste Landfills		2	4
CA Oil and Gas Wells			
CA Voluntary Cleanup Sites			

National Priorities List (NPL)



This database returned 1 results for your area.

The Superfund Program, administered under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is an EPA Program to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. The NPL (National Priorities List) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation. The boundaries of an NPL site are not tied to the boundaries of the property on which a facility is located. The release may be contained with a single property's boundaries or may extend across property boundaries onto other properties. The boundaries can, and often do change as further information on the extent and degree of contamination is obtained.

National Priorities List (NPL)

Location	34.19561, -118.3621
Distance to site boundary	Property is WITHIN site study boundary
County	LOS ANGELES
NPL Status	Currently on the Final NPL
Site Summary	Federal Register Notice: June 10, 1986 Conditions at proposal (October 15, 1984): San Fernando Valley (Area 1) is an area of contaminated ground water in the vicinity of the North Hollywood section of the City of Los Angeles, Los Angeles County, California. This area is part of the San Fernando Valley Basin, a natural underground reservoir that represents an important source of drinking water for at least 3 million people in the Los Angeles metropolitan area. The contaminated ground water, which underlies an area of approximately 5,156 acres, contains trichloroethylene (TCE) and perchloroethylene (PCE), and to a lesser extent, carbon tetrachloride and chloroform, according to analyses conducted by the California Department of Health Services, as well as numerous local government agencies. The State's recommended drinking water guideline for TCE and PCE (5 and 4 parts per billion respectively) are exceeded in a number of public wells in this area. To alleviate this contamination, wells are either taken out of service or blended with water from clean sources to ensure that the public receives water with TCE/PCE concentrations below the State's guidelines. Status (June 10, 1986): EPA and the Los Angeles Department of Water and Power are entering into a cooperative agreement for a remedial investigation of the San Fernando Valley Basin and a feasibility study targeted at Area 1, the most contaminated area. The RI is scheduled to begin in early 1986.
Primary Name	SAN FERNANDO VALLEY (AREA 1)
CERCLIS Identifier	CAD980894893
Address	NORTH HOLLYWOOD WELLFIELD AREA
City	NORTH HOLLYWOOD
State	CA
Zip Code	91601

CERCLIS List

This database returned no results for your area.

The United States Environmental Protection Agency (EPA) investigates known or suspected uncontrolled or abandoned hazardous substance facilities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). EPA maintains a comprehensive list of these facilities in a database known as the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). These sites have either been investigated or are currently under investigation by the EPA for release or threatened release of hazardous substances. Once a site is placed in CERCLIS, it may be subjected to several levels of review and evaluation and ultimately placed on the National Priority List (NPL).

CERCLIS sites designated as "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an intitial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund Action or NPL consideration.

CERCLIS NFRAP

This database returned no results for your area.

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" NFRAP have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the site being placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.
EPA has removed these NFRAP sites from CERCLIS to lift unintended barriers to the redevelopment of these properties. This policy change is part of EPA"s Brownfields Redevelopment Program to help cities, states, private investors and affected citizens promote economic redevelopment of unproductive urban sites.

RCRA CORRACTS Facilities

This database returned no results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). The EPA maintains the Corrective Action Report (CORRACTS) database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing "corrective action." A "corrective action order" is issued pursuant to RCRA Section 3008(h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility"s boundary and can be required regardless of when the release occurred, even if it predated RCRA.

RCRA non-CORRACTS TSD Facilities

This database returned no results for your area.

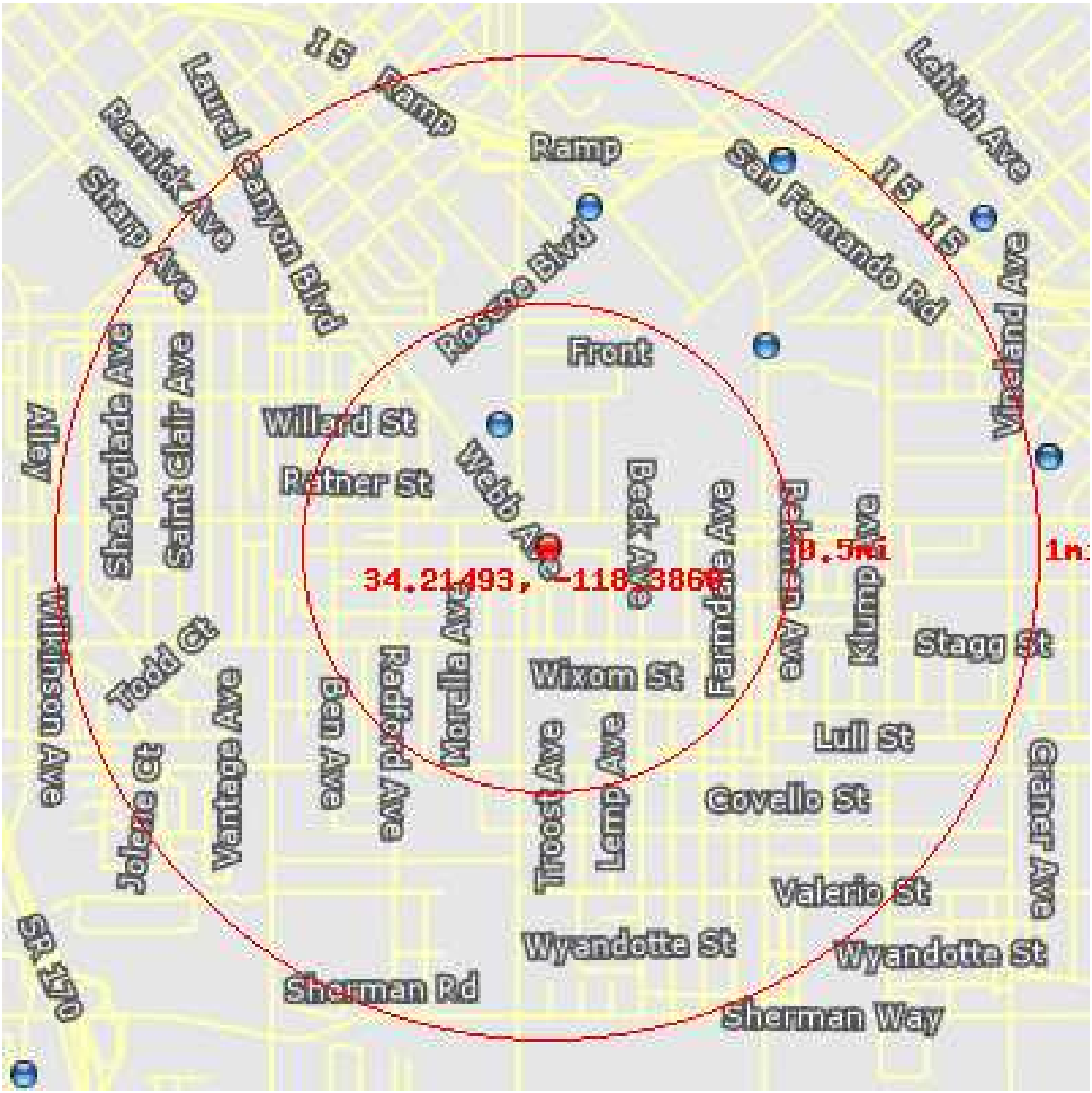
The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). The EPA''s RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilites database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA Permitted Treatment, Storage, Disposal Facilities (RCRA-TSD) are facilities which treat, store and/or dispose of hazardous waste.

Federal Institutional Control / Engineering Control Registry

This database returned no results for your area.

Federal Institutional Control / Engineering Control Registry

Emergency Response Notification System (ERNS)



This database returned 6 results for your area.

The Emergency Response Notification System (ERNS) is a national computer database used to store information on unauthorized releases of oil and hazardous substances. The program is a cooperative effort of the Environmental Protection Agency, the Department of Transportation Research and Special Program Administration"s John Volpe National Transportation System Center and the National Response Center. There are primarily five Federal statutes that require release reporting: the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) section 103; the Superfund Amendments and Reauthorization Act(SARA) Title III Section 304; the Clean Water Act of 1972(CWA) section 311(b)(3); and the Hazardous Material Transportation Act of 1974(HMTA section 1808(b).

Emergency Response Notification System (ERNS)

Location	34.21843, -118.3885
Distance to site	1366 ft / 0.26 mi NW
Incident	CALLER IS REPORTING 60-70 GALLONS OF MINERAL OIL THAT WAS DISCHARGED ON THE ROAD AND INTO THE STORM DRAIN. CALLER STATED THE CAUSE WAS A ACCIDENT. CALLER STATED A CAR HIT THE UTILITY POLE, THAT HAD TWO TRANSFORMERS ATTACHED TO THE POLE, AND KNOCKED THE POLE DOWN ONTO THE STREET. CALLER STATED THE VEHICLE HIT A FIRE HYDRANT AS WELL THAT CAUSED THE WATER TO FLUSH THE OIL INTO THE STORM DRAIN.
Incident Date	12/19/2014 1:07
Year Reported	2014
Address	8125 LANKERSHIM BLVD
City	SUN VALLEY
State	CA
County	LOS ANGELES

Location	34.22076, -118.379
Distance to site	3187 ft / 0.6 mi NE
Incident	THE CALLER IS REPORTING THAT THE SUSPECTED RESPONSIBLE PARTY IS RELEASING MATERIALS INTO THE ATMOSPHERE.
Incident Date	5/8/2009 10:00
Year Reported	2009
Address	8250 TUJUGA
City	SUN VALLEY
State	CA
County	LOS ANGELES
Zip Code	91352

Location	34.22478, -118.3852
Distance to site	3627 ft / 0.69 mi N
Incident	CALLER STATES THAT THE PROPERTY HAS OIL MIXED WITH WATER FLOWING INTO THE STREET AND PAINT AND A BAD SMELL GOING INTO THE AIR FROM DOING AUTOMOTIVE WORK.
Incident Date	2/9/2011 18:00
Year Reported	2011
Address	11613 TUXFORD ST
City	SUN VALLEY
State	CA
County	LOS ANGELES
Zip Code	91352

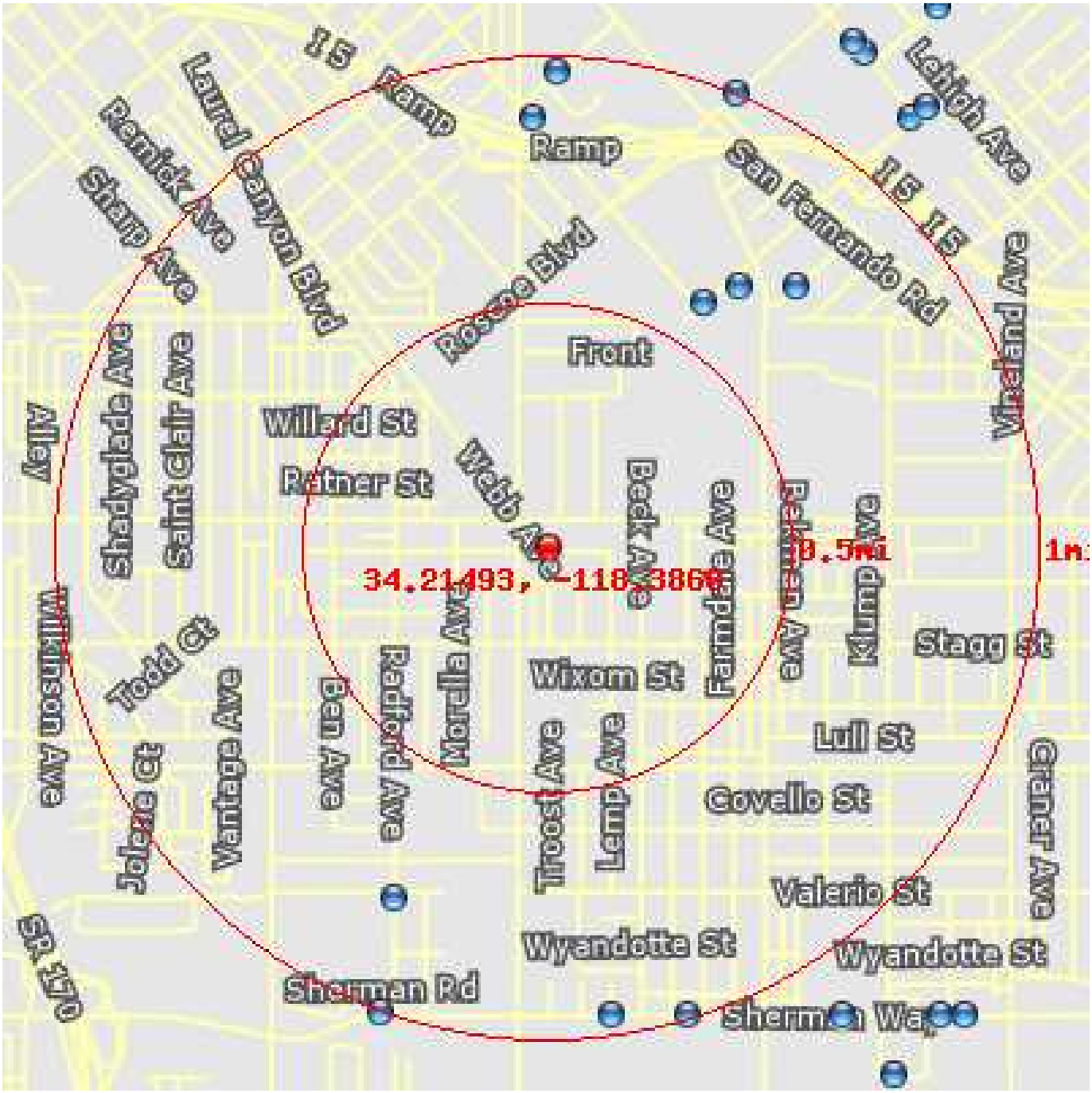
Emergency Response Notification System (ERNS)

Location	34.22616, -118.3784
Distance to site	4825 ft / 0.91 mi NE
Incident	REPORT OF A TRAIN STRIKING A TRESPASSER RIDING ON A HORSE.
Incident Date	2/11/2011 15:00
Incident location	MILEPOST 17.05
Year Reported	2011
City	SUN VALLEY
State	CA
County	LOS ANGELES

Location	34.22616, -118.3784
Distance to site	4825 ft / 0.91 mi NE
Incident	CALLER IS REPORTING A RELEASE OF SEWAGE (LIQUID) FROM A MAN-HOLE COVER DUE TO A PLUMBING ISSUE.
Incident Date	12/8/2009 10:00
Incident location	GREEN VERDUGO RESERVOIR
Year Reported	2009
Address	10000 BLOCK OF SUNLAND BLVD
City	SUN VALLEY
State	CA
County	LOS ANGELES

Location	34.22616, -118.3784
Distance to site	4825 ft / 0.91 mi NE
Incident	CALLER STATED THAT PASSENGER TRAIN 208 STRUCK A TRESPASSER AT THE RVILLA AVE GRADE CROSSING DUE TO UNKNOWN CAUSES. THE TRESPASSER WAS INJURED.
Incident Date	10/14/2010 8:27
Incident location	MM: 14.4, SUB: VALLEY
Year Reported	2010
City	SUN VALLEY
State	CA
County	LOS ANGELES

US Toxic Release Inventory



This database returned 9 results for your area.

The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. TRI reporters for all reporting years are provided in the file.

US Toxic Release Inventory

Location	34.22201, -118.3812
Distance to site	3087 ft / 0.58 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002425153*
EPA Identifier	110002425153
Primary Name	STANDARD CONCRETE PRODUCTS INC
Address	11462 PENROSE ST.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	324121, 327320
Programs	EIS, TRIS
Program Interests	HAZARDOUS AIR POLLUTANT MAJOR, TRI REPORTER
Updated On	14-APR-2015 22:31:59
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING., READY-MIX CONCRETE MANUFACTURING.

Location	34.22249, -118.38
Distance to site	3447 ft / 0.65 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064454068*
EPA Identifier	110064454068
Primary Name	HOLLIDAY ROCK CO SUN VALLEY
Address	11420 PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	327320
Programs	CA-ENVIROVIEW, TRIS
Program Interests	STATE MASTER, TRI REPORTER
Updated On	23-JUN-2016 16:25:19
Recorded On	25-JUN-2015 16:28:47
NAICS Descriptions	READY-MIX CONCRETE MANUFACTURING.

US Toxic Release Inventory

Location	34.22251, -118.3779
Distance to site	3858 ft / 0.73 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000477001*
EPA Identifier	110000477001
Primary Name	PRIME PLATING INC
Address	11321 GOSS ST.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	913523206
NAICS Codes	332813
Programs	BR, CA-ENVIROVIEW, EIS, RCRAINFO, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	29-JUL-2016 12:09:37
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

Location	34.20462, -118.3922
Distance to site	4093 ft / 0.78 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000477190*
EPA Identifier	110000477190
Primary Name	ELECTROMATIC INC
Address	7351 RADFORD AVE.
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	332813
SIC Codes	3471
SIC Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 12:21:33
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US Toxic Release Inventory

Location	34.22742, -118.3873
Distance to site	4560 ft / 0.86 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000783313*
EPA Identifier	110000783313
Primary Name	ACCURATE ENGINEERING CORP
Address	8710 TELFAIR AVE.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	334412
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	06-MAY-2016 18:54:08
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	BARE PRINTED CIRCUIT BOARD MANUFACTURING.

Location	34.2288, -118.3864
Distance to site	5063 ft / 0.96 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000476976*
EPA Identifier	110000476976
Primary Name	LMDD ENTERPRISES-DIXON HARD CHROME
Address	11645 PENDLETON ST.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-2594
NAICS Codes	332813
SIC Codes	3471
SIC Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
Programs	AIR, AIRS/AFS, BR, CA-ENVIROVIEW, EIS, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MINOR, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	14-OCT-2015 09:13:49
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US Toxic Release Inventory

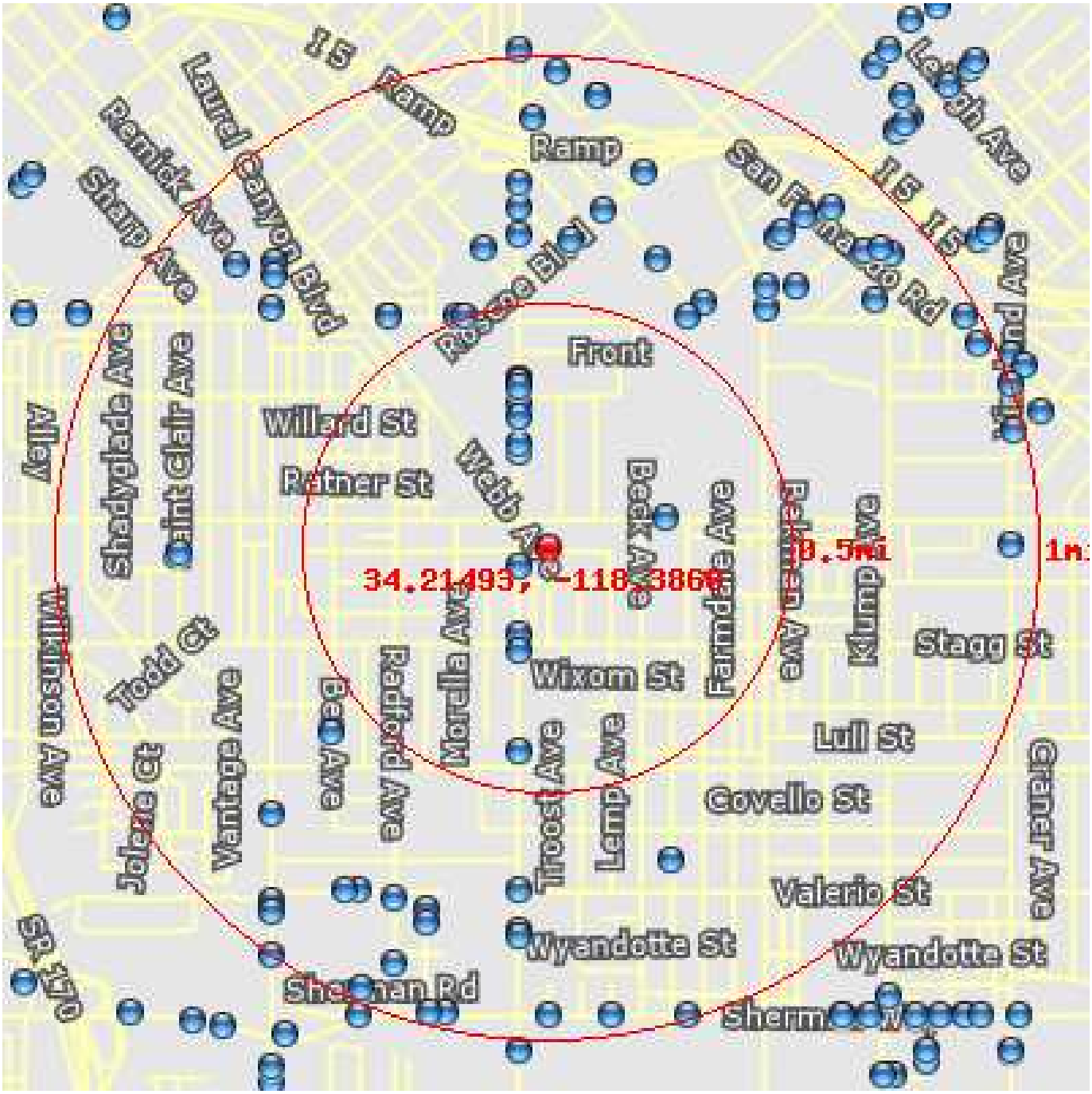
Location	34.20119, -118.3845
Distance to site	5065 ft / 0.96 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002142734*
EPA Identifier	110002142734
Primary Name	ALLIED-SIGNAL AEROSPACE CO ELECTRODYNAMICS
Address	11600 SHERMAN WAY
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	541710
SIC Codes	3728
SIC Descriptions	AIRCRAFT PARTS AND AUXILIARY EQUIPMENT, NOT ELSEWHERE CLASSIFIED
Programs	EIS, ICIS, TRIS
Program Interests	FORMAL ENFORCEMENT ACTION, HAZARDOUS AIR POLLUTANT MAJOR, TRI REPORTER
Updated On	31-DEC-2015 10:56:51
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	RESEARCH AND DEVELOPMENT IN THE PHYSICAL, ENGINEERING, AND LIFE SCIENCES.

Location	34.22816, -118.3801
Distance to site	5240 ft / 0.99 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110042003319*
EPA Identifier	110042003319
Primary Name	VULCAN MATERIALS COMPANY SUN VALLEY
Address	11447 W TUXFORD ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	324121
Programs	CA-ENVIROVIEW, TRIS
Program Interests	STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 10:04:23
Recorded On	10-SEP-2010 10:14:17
NAICS Descriptions	ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING.

US Toxic Release Inventory

Location	34.20119, -118.3818
Distance to site	5244 ft / 0.99 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002419945*
EPA Identifier	110002419945
Primary Name	AVIBANK MANUFACTURING INC
Address	11500 SHERMAN WAY
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605-5827
NAICS Codes	332722, 332813
SIC Codes	3429
SIC Descriptions	HARDWARE, NOT ELSEWHERE CLASSIFIED
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, ICIS, RCRAINFO, TRIS
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	29-JUL-2016 11:55:09
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING., ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US RCRA Generators (CESQG, SQG, LQG)



This database returned 73 results for your area.

The United States Environmental Protection Agency (EPA) regulates hazardous waste under the Resource Conservation and Recovery Act (RCRA). EPA maintains a database of facilities, which generate hazardous waste or treat, store, and/or dispose of hazardous wastes.

Conditionally Exempt Small Quantity Generators (CESQG) generate 100 kilograms or less per month of hazardous waste, or 1 kilogram or less per month of acutely hazardous waste.

Small Quantity Generators (SQG) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Large Quantity Generators (LQG) generate 1,000 kilograms per month or more of hazardous waste, or more than 1 kilogram per month of acutely hazardous waste.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.21429, -118.3878
Distance to site	367 ft / 0.07 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002640900*
EPA Identifier	110002640900
Primary Name	SCHIROS MOTOR SALES
Address	7908 LANKERSHIM BLVD
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	08-AUG-2010 18:11:03
Recorded On	01-MAR-2000 00:00:00

Location	34.21228, -118.3878
Distance to site	1008 ft / 0.19 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002742774*
EPA Identifier	110002742774
Primary Name	SALLER'S AUTO BODY
Address	7806 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:18:08
Recorded On	01-MAR-2000 00:00:00

Location	34.21764, -118.3878
Distance to site	1030 ft / 0.2 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002640884*
EPA Identifier	110002640884
Primary Name	CALIFORNIA PROPELLER
Address	8101 LANKERSHIM BLVD
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	14-OCT-2015 11:42:15
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.21787, -118.3878
Distance to site	1110 ft / 0.21 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002789171*
EPA Identifier	110002789171
Primary Name	ENCO ENGINEERING
Address	8111 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	05-AUG-2010 03:29:59
Recorded On	01-MAR-2000 00:00:00

Location	34.21183, -118.3878
Distance to site	1167 ft / 0.22 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002950986*
EPA Identifier	110002950986
Primary Name	PACIFIC BELL
Address	7744 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	BR, HWTS-DATAMART, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, SQG, STATE MASTER
Updated On	26-JAN-2012 14:00:31
Recorded On	01-MAR-2000 00:00:00

Location	34.21572, -118.3826
Distance to site	1312 ft / 0.25 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110027012391*
EPA Identifier	110027012391
Primary Name	ARMINTA STREET ELEMENTARY SCHOOL
Address	11530 STRATHERN ST
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	LQG
Updated On	29-DEC-2014 20:48:59
Recorded On	24-OCT-2006 01:45:41

US RCRA Generators (CESQG, SQG, LQG)

Location	34.21866, -118.3878
Distance to site	1391 ft / 0.26 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110038891875*
EPA Identifier	110038891875
Primary Name	SUBCONSCIOUS PRODUCTIONS SPFX WAREHOUSE
Address	8157 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	28-MAR-2014 21:21:30
Recorded On	30-JUN-2009 14:54:54

Location	34.21905, -118.3878
Distance to site	1531 ft / 0.29 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110038891964*
EPA Identifier	110038891964
Primary Name	SUBCONSCIOUS PRODUCTIONS PICTURE CAR WAREHOUSE
Address	8155 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	28-MAR-2014 21:21:32
Recorded On	30-JUN-2009 14:55:42

Location	34.21952, -118.3878
Distance to site	1700 ft / 0.32 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110038859802*
EPA Identifier	110038859802
Primary Name	STAMET, INC
Address	8210 LANKERSHIM BLVD., UNIT #9
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605-1645
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG
Updated On	28-MAR-2014 21:10:54
Recorded On	30-JUN-2009 12:11:04

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2197, -118.3877
Distance to site	1762 ft / 0.33 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002807829*
EPA Identifier	110002807829
Primary Name	XENOTECH INC
Address	8211 LANDERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	05-AUG-2010 17:58:01
Recorded On	01-MAR-2000 00:00:00

Location	34.21973, -118.3878
Distance to site	1775 ft / 0.34 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002618515*
EPA Identifier	110002618515
Primary Name	SHEINER DIRECT TRADE PRINTING
Address	8216 LANKERSHIM
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 08:53:45
Recorded On	01-MAR-2000 00:00:00

Location	34.21981, -118.3878
Distance to site	1804 ft / 0.34 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002805938*
EPA Identifier	110002805938
Primary Name	RJM LABORATORIES INC
Address	8217 LANKERSHIM BLVD #43
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 08:59:21
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20891, -118.3878
Distance to site	2215 ft / 0.42 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002668818*
EPA Identifier	110002668818
Primary Name	LARRY J HIGGINS TERMITE CO
Address	7614 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:09:50
Recorded On	01-MAR-2000 00:00:00

Location	34.22163, -118.3896
Distance to site	2587 ft / 0.49 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002861289*
EPA Identifier	110002861289
Primary Name	DANS PRECISION GRINDING
Address	11750 ROSCOE 7
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3869
NAICS Codes	333319
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	08-AUG-2010 16:57:21
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22161, -118.39
Distance to site	2612 ft / 0.49 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110042272723*
EPA Identifier	110042272723
Primary Name	METRO TRANSMISSION, CONSTRUCTION & MAINTENANCE HQ
Address	11761 ROSCOE BOULEVARD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3851
NAICS Codes	221121
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG
Updated On	28-MAR-2014 21:12:35
Recorded On	01-NOV-2010 15:43:58
NAICS Descriptions	ELECTRIC BULK POWER TRANSMISSION AND CONTROL.

Location	34.2216, -118.3818
Distance to site	2868 ft / 0.54 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002932248*
EPA Identifier	110002932248
Primary Name	FOOTHILL TRUCKS INC
Address	11473 PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 13:37:54
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22164, -118.3924
Distance to site	2965 ft / 0.56 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110012199218*
EPA Identifier	110012199218
Primary Name	ARCO FAC NO 09588
Address	11870 ROSCOE BLVD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	26-JAN-2012 13:30:35
Recorded On	01-MAR-2000 00:00:00

Location	34.22164, -118.3924
Distance to site	2965 ft / 0.56 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110069512977*
EPA Identifier	110069512977
Primary Name	RALPHS GROCERY COMPANY-FUEL CENTER #17
Address	11870 ROSCOE BLVD.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	447110
Programs	RCRAINFO
Program Interests	LQG
Recorded On	21-SEP-2016 13:23:18
NAICS Descriptions	GASOLINE STATIONS WITH CONVENIENCE STORES.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2094, -118.3944
Distance to site	3039 ft / 0.58 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110031365421*
EPA Identifier	110031365421
Primary Name	KORENSTEIN ELEMENTARY SCHOOL
Address	7650 N BEN AVENUE
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605-2728
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG
Updated On	26-JUL-2012 09:46:48
Recorded On	22-OCT-2007 16:27:59

Location	34.22201, -118.3812
Distance to site	3087 ft / 0.58 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110009528733*
EPA Identifier	110009528733
Primary Name	BORAL RESOURCES SUN VALLEY
Address	11462 PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	324121
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 12:37:40
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ASPHALT PAVING MIXTURE AND BLOCK MANUFACTURING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2236, -118.3891
Distance to site	3233 ft / 0.61 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110018985909*
EPA Identifier	110018985909
Primary Name	RENTAL SERVICE CORPORATION #712
Address	8450 HADDON ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3838
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	26-JAN-2012 12:41:20
Recorded On	18-NOV-2004 16:04:16

Location	34.22385, -118.386
Distance to site	3265 ft / 0.62 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002653021*
EPA Identifier	110002653021
Primary Name	VOGUE COACH CORP
Address	11660 TUXFORD ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	06-AUG-2010 14:13:30
Recorded On	01-MAR-2000 00:00:00

Location	34.22332, -118.3829
Distance to site	3287 ft / 0.62 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002721706*
EPA Identifier	110002721706
Primary Name	VALLEY PARKING ENFORCEMENT
Address	8431 TELFAIR STREET
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3926
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	05-AUG-2010 11:48:02
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22402, -118.3878
Distance to site	3328 ft / 0.63 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002633302*
EPA Identifier	110002633302
Primary Name	WESTERN SCREEN PRINT CORPORATION
Address	8501 LANKERSHIM BOULEVARD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3127
NAICS Codes	323119, 336360
Programs	EIS, RCRAINFO
Program Interests	HAZARDOUS AIR POLLUTANT MAJOR, SQG
Updated On	14-APR-2015 21:08:34
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	MOTOR VEHICLE SEATING AND INTERIOR TRIM MANUFACTURING., OTHER COMMERCIAL PRINTING.

Location	34.22187, -118.379
Distance to site	3462 ft / 0.66 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040883416*
EPA Identifier	110040883416
Primary Name	PENROSE LANDFILL GAS CONVERSION LLC
Address	8301 TUJUNGA AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3215
NAICS Codes	221112, 221118, 221119
SIC Codes	4931
SIC Descriptions	ELECTRIC AND OTHER SERVICES COMBINED
Programs	AIR, AIRS/AFS, BR, EIS, HWTS-DATAMART, RCRAINFO
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER
Updated On	15-OCT-2015 07:36:57
Recorded On	20-MAY-2010 09:55:55
NAICS Descriptions	FOSSIL FUEL ELECTRIC POWER GENERATION., OTHER ELECTRIC POWER GENERATION.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2247, -118.3848
Distance to site	3618 ft / 0.69 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002885566*
EPA Identifier	110002885566
Primary Name	TECFAR MANUFACTURING INC
Address	11600 TUXFORD ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	333319
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	26-JAN-2012 12:55:27
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING.

Location	34.20573, -118.3823
Distance to site	3621 ft / 0.69 mi SE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002729263*
EPA Identifier	110002729263
Primary Name	LA USD CAMELLIA ELEM
Address	7451 CAMELLIA AVE
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	HWTS-DATAMART, NCDB, RCRAINFO
Program Interests	COMPLIANCE ACTIVITY, SQG, STATE MASTER
Updated On	13-DEC-2010 18:13:39
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22483, -118.3878
Distance to site	3624 ft / 0.69 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110014086648*
EPA Identifier	110014086648
Primary Name	SWELLDOM HOME CARE SERV INC
Address	8531 LANKERSHIM BOULEVARD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3127
NAICS Codes	811420
Programs	EIS, RCRAINFO
Program Interests	HAZARDOUS AIR POLLUTANT MAJOR, SQG
Updated On	14-APR-2015 21:29:46
Recorded On	22-APR-2003 14:11:08
NAICS Descriptions	REUPHOLSTERY AND FURNITURE REPAIR.

Location	34.2225, -118.379
Distance to site	3628 ft / 0.69 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002821545*
EPA Identifier	110002821545
Primary Name	MAIL PAC
Address	8430 TUJANGA AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3962
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	06-AUG-2010 09:03:53
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20484, -118.3878
Distance to site	3693 ft / 0.7 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110020887897*
EPA Identifier	110020887897
Primary Name	HONEYWELL ALLIED SIGNAL N HOLLYWOOD
Address	7400 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	LQG
Updated On	26-JAN-2012 13:37:13
Recorded On	14-APR-2005 15:58:25

Location	34.22184, -118.3965
Distance to site	3855 ft / 0.73 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002617277*
EPA Identifier	110002617277
Primary Name	CANYON PLAZA CLEANERS
Address	8307 LAUREL CANYON RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 08:54:13
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22251, -118.3779
Distance to site	3858 ft / 0.73 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000477001*
EPA Identifier	110000477001
Primary Name	PRIME PLATING INC
Address	11321 GOSS ST.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	913523206
NAICS Codes	332813
Programs	BR, CA-ENVIROVIEW, EIS, RCRAINFO, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	29-JUL-2016 12:09:37
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

Location	34.22555, -118.3878
Distance to site	3886 ft / 0.74 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002798919*
EPA Identifier	110002798919
Primary Name	SUN GARDEN SUPPLIES
Address	8611 LANKERSHIM BLVD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	05-AUG-2010 15:23:39
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.21473, -118.3998
Distance to site	3917 ft / 0.74 mi W
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110038893490*
EPA Identifier	110038893490
Primary Name	STRATHERN ST ELEMENTARY SCHOOL
Address	7939 ST CLAIR AVE
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	LQG
Updated On	28-MAR-2014 21:17:41
Recorded On	30-JUN-2009 15:09:12

Location	34.22279, -118.3965
Distance to site	4083 ft / 0.77 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002714126*
EPA Identifier	110002714126
Primary Name	HIRO PHOTO LAB
Address	8365 LAUREL AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:18:34
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20429, -118.391
Distance to site	4085 ft / 0.77 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002846859*
EPA Identifier	110002846859
Primary Name	COASTAL PRINTWORKS INC
Address	7344 HINDS AVE
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
SIC Codes	2731
SIC Descriptions	BOOKS: PUBLISHING, OR PUBLISHING AND PRINTING
Programs	CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	13-OCT-2015 10:27:54
Recorded On	01-MAR-2000 00:00:00

Location	34.20462, -118.3922
Distance to site	4093 ft / 0.78 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000477190*
EPA Identifier	110000477190
Primary Name	ELECTROMATIC INC
Address	7351 RADFORD AVE.
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	332813
SIC Codes	3471
SIC Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	31-DEC-2015 12:21:33
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20706, -118.3965
Distance to site	4098 ft / 0.78 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002896073*
EPA Identifier	110002896073
Primary Name	N AND Y AUTO REPAIR
Address	7503 LAUREL CYN
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 09:02:23
Recorded On	01-MAR-2000 00:00:00

Location	34.22394, -118.3786
Distance to site	4121 ft / 0.78 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002768434*
EPA Identifier	110002768434
Primary Name	ARROW MACHINE PARTS & SALES
Address	11343 PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:22:37
Recorded On	01-MAR-2000 00:00:00

Location	34.22586, -118.3833
Distance to site	4127 ft / 0.78 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002687094*
EPA Identifier	110002687094
Primary Name	PRECISION DIE & STAMPING, INC
Address	11533 TUXFORD ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:15:48
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20362, -118.3878
Distance to site	4137 ft / 0.78 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002742024*
EPA Identifier	110002742024
Primary Name	MODERN-AIRE MFG CORP
Address	7319 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	332322
SIC Codes	3634
SIC Descriptions	ELECTRIC HOUSEWARES AND FANS
Programs	CA-ENVIROVIEW, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	13-OCT-2015 07:55:54
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	SHEET METAL WORK MANUFACTURING.

Location	34.22319, -118.3964
Distance to site	4179 ft / 0.79 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110054820752*
EPA Identifier	110054820752
Primary Name	CVS PHARMACY #9643
Address	8425 LAUREL CANYON BLVD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	446110
SIC Codes	5912
SIC Descriptions	DRUG STORES AND PROPRIETARY STORES
Programs	BR, CA-ENVIROVIEW, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER
Updated On	10-OCT-2015 08:53:33
Recorded On	30-JAN-2013 13:18:24
NAICS Descriptions	PHARMACIES AND DRUG STORES.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20347, -118.3878
Distance to site	4193 ft / 0.79 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002785120*
EPA Identifier	110002785120
Primary Name	BEVERLY HILLS TRANSFER & STG
Address	7335 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	06-AUG-2010 14:38:52
Recorded On	01-MAR-2000 00:00:00

Location	34.22408, -118.3784
Distance to site	4197 ft / 0.79 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002919682*
EPA Identifier	110002919682
Primary Name	DBA RL ANODIZING
Address	11331 PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	332813
SIC Codes	3471
SIC Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, ICIS, RCRAINFO
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, FORMAL ENFORCEMENT ACTION, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER
Updated On	26-OCT-2016 13:23:34
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20482, -118.3935
Distance to site	4198 ft / 0.8 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002811761*
EPA Identifier	110002811761
Primary Name	ALLSTAR PRINT INC
Address	11936 VALERIO ST
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	323119
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:27:30
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	OTHER COMMERCIAL PRINTING.

Location	34.20389, -118.391
Distance to site	4224 ft / 0.8 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002620343*
EPA Identifier	110002620343
Primary Name	ANTIQUE SERVICES INC
Address	7349 HINDS AVE
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 12:18:23
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20482, -118.394
Distance to site	4269 ft / 0.81 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002857294*
EPA Identifier	110002857294
Primary Name	DARROWS HEATING
Address	11944 VALERIIO ST
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 09:01:45
Recorded On	01-MAR-2000 00:00:00

Location	34.22209, -118.3752
Distance to site	4389 ft / 0.83 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002859540*
EPA Identifier	110002859540
Primary Name	XENOTECH INC
Address	11229 VINEDALE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 08:59:39
Recorded On	01-MAR-2000 00:00:00

Location	34.22313, -118.3978
Distance to site	4457 ft / 0.84 mi NW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110058882669*
EPA Identifier	110058882669
Primary Name	RALPHS NO 0017 703
Address	8325 LAUREL CANYON BLVD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	BR, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG
Updated On	27-JAN-2015 13:50:30
Recorded On	30-APR-2014 19:00:34

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2246, -118.3777
Distance to site	4483 ft / 0.85 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002920796*
EPA Identifier	110002920796
Primary Name	COSMETIC GROUP USA
Address	11312 PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
SIC Codes	2844
SIC Descriptions	PERFUMES, COSMETICS, AND OTHER TOILET PREPARATIONS
Programs	NCDB, RCRAINFO
Program Interests	COMPLIANCE ACTIVITY, SQG
Updated On	26-JAN-2012 13:28:00
Recorded On	01-MAR-2000 00:00:00

Location	34.22742, -118.3873
Distance to site	4560 ft / 0.86 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000783313*
EPA Identifier	110000783313
Primary Name	ACCURATE ENGINEERING CORP
Address	8710 TELFAIR AVE.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	334412
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	06-MAY-2016 18:54:08
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	BARE PRINTED CIRCUIT BOARD MANUFACTURING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22353, -118.3755
Distance to site	4637 ft / 0.88 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002877995*
EPA Identifier	110002877995
Primary Name	TRINIS AUTO BODY SHOP
Address	8459 SAN FERNANDO RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
SIC Codes	4900
Programs	CA-ENVIROVIEW, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	14-OCT-2015 10:45:18
Recorded On	01-MAR-2000 00:00:00

Location	34.22479, -118.3766
Distance to site	4733 ft / 0.9 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110009543565*
EPA Identifier	110009543565
Primary Name	FIBER DYNE
Address	8530 SAN FERNANDO RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 18:24:56
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2027, -118.3922
Distance to site	4743 ft / 0.9 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002939054*
EPA Identifier	110002939054
Primary Name	COMPLETE AUTO ELECTRIC
Address	7263 RADFORD
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91604
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 13:21:40
Recorded On	01-MAR-2000 00:00:00

Location	34.22364, -118.3749
Distance to site	4796 ft / 0.91 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002646879*
EPA Identifier	110002646879
Primary Name	UNITED RECORDING ELECTRONICS INDUSTRIE
Address	8460 SAN FERNANDO ROAD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	334419, 335313
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 08:55:02
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	OTHER ELECTRONIC COMPONENT MANUFACTURING., SWITCHGEAR AND SWITCHBOARD APPARATUS MANUFACTURING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20447, -118.3965
Distance to site	4804 ft / 0.91 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110012434605*
EPA Identifier	110012434605
Primary Name	UNITED AERONAUTICAL CORPORATION
Address	7360 LAUREL CANYON BOULEVARD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605-3710
NAICS Codes	333318, 336413
SIC Codes	3544
SIC Descriptions	SPECIAL DIES AND TOOLS, DIE SETS, JIGS AND FIXTURES, AND INDUSTRIAL MOLDS
Programs	BR, CA-ENVIROVIEW, EIS, HWTS-DATAMART, RCRAINFO
Program Interests	HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER
Updated On	10-OCT-2015 07:40:52
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	OTHER AIRCRAFT PARTS AND AUXILIARY EQUIPMENT MANUFACTURING.

Location	34.22342, -118.3746
Distance to site	4816 ft / 0.91 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110022821311*
EPA Identifier	110022821311
Primary Name	KENS BROACHING INC
Address	8450 SAN FERNANDO RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	333512
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 13:24:28
Recorded On	11-OCT-2005 11:21:54
NAICS Descriptions	MACHINE TOOL (METAL CUTTING TYPES) MANUFACTURING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.22808, -118.3849
Distance to site	4833 ft / 0.92 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110017409151*
EPA Identifier	110017409151
Primary Name	BROTHERS PRINTING COMPANY
Address	8620 TAMARACK AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
SIC Codes	2752
SIC Descriptions	COMMERCIAL PRINTING, LITHOGRAPHIC
Programs	RBLC, RCRAINFO
Program Interests	AIR MAJOR, SQG
Updated On	26-JAN-2012 12:34:54
Recorded On	12-APR-2004 12:25:46

Location	34.22808, -118.3849
Distance to site	4833 ft / 0.92 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110014377236*
EPA Identifier	110014377236
Primary Name	VIACOM
Address	8615 TAMARACK AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	913522505
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 13:32:58
Recorded On	18-MAY-2003 01:19:10

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20416, -118.3965
Distance to site	4897 ft / 0.93 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002741980*
EPA Identifier	110002741980
Primary Name	PROFESSIONAL STATIONERS
Address	7340 LAUREL CANYON BLVD
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	08-AUG-2010 18:15:36
Recorded On	01-MAR-2000 00:00:00

Location	34.21492, -118.3703
Distance to site	4980 ft / 0.94 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002768201*
EPA Identifier	110002768201
Primary Name	SUN VALLEY LIBRARY
Address	7935 VINELAND AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	08-AUG-2010 16:51:19
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20119, -118.3867
Distance to site	5014 ft / 0.95 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002333332*
EPA Identifier	110002333332
Primary Name	KAISER PERMANENTE REGIONAL REFERENCE LAB
Address	11668 SHERMAN WAY
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	621511
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER
Updated On	26-OCT-2016 13:41:21
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	MEDICAL LABORATORIES.

Location	34.2288, -118.3864
Distance to site	5063 ft / 0.96 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000476976*
EPA Identifier	110000476976
Primary Name	LMDD ENTERPRISES-DIXON HARD CHROME
Address	11645 PENDLETON ST.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-2594
NAICS Codes	332813
SIC Codes	3471
SIC Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
Programs	AIR, AIRS/AFS, BR, CA-ENVIROVIEW, EIS, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MINOR, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	14-OCT-2015 09:13:49
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20119, -118.3845
Distance to site	5065 ft / 0.96 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110024518459*
EPA Identifier	110024518459
Primary Name	HOME DEPOT USA INC HD 6613
Address	11600 SHERMAN WAY
City	N HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	444110
SIC Codes	5211
SIC Descriptions	LUMBER AND OTHER BUILDING MATERIALS DEALERS
Programs	BR, CA-CERS, CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO
Program Interests	HAZARDOUS WASTE BIENNIAL REPORTER, LQG, SQG, STATE MASTER
Updated On	19-MAY-2016 13:50:15
Recorded On	28-MAR-2006 14:44:37
NAICS Descriptions	HOME CENTERS.

Location	34.22085, -118.3715
Distance to site	5099 ft / 0.97 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002936823*
EPA Identifier	110002936823
Primary Name	TWO BROTHERS AUTOMOTIVE
Address	8293 SAN FERNANDO RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	CA-ENVIROVIEW, HWTS-DATAMART, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	10-OCT-2015 10:47:16
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.2216, -118.3719
Distance to site	5114 ft / 0.97 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002666507*
EPA Identifier	110002666507
Primary Name	RACK AND ROLL INC
Address	8320 SAN FERNANDO RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	333924
Programs	EIS, RCRAINFO
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, SQG
Updated On	14-APR-2015 21:18:41
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	INDUSTRIAL TRUCK, TRACTOR, TRAILER, AND STACKER MACHINERY MANUFACTURING.

Location	34.20121, -118.3903
Distance to site	5119 ft / 0.97 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002899999*
EPA Identifier	110002899999
Primary Name	NEW WAY AUTO BODY
Address	11791 SHERMAN WAY
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
Programs	RCRAINFO
Program Interests	SQG
Updated On	26-JAN-2012 13:01:07
Recorded On	01-MAR-2000 00:00:00

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20198, -118.3934
Distance to site	5123 ft / 0.97 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002723571*
EPA Identifier	110002723571
Primary Name	TRIMM INDUSTRIES INC
Address	11939 SHERMAN RD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	337127
Programs	RCRAINFO
Program Interests	SQG
Updated On	04-AUG-2010 19:35:00
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	INSTITUTIONAL FURNITURE MANUFACTURING.

Location	34.21827, -118.3703
Distance to site	5143 ft / 0.97 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110013367686*
EPA Identifier	110013367686
Primary Name	SUN VALLEY REC CENTER
Address	8133 VINELAND AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 12:32:47
Recorded On	23-DEC-2002 15:39:32

US RCRA Generators (CESQG, SQG, LQG)

Location	34.20121, -118.391
Distance to site	5160 ft / 0.98 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002637594*
EPA Identifier	110002637594
Primary Name	VALLEY FRICTION MATERIALS
Address	11817 SHERMAN WAY
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
NAICS Codes	327999, 336399
SIC Codes	5013
SIC Descriptions	MOTOR VEHICLE SUPPLIES AND NEW PARTS
Programs	CA-ENVIROVIEW, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	14-OCT-2015 11:06:19
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ALL OTHER MISCELLANEOUS NONMETALLIC MINERAL PRODUCT MANUFACTURING., ALL OTHER MOTOR VEHICLE PARTS MANUFACTURING.

Location	34.20119, -118.3818
Distance to site	5244 ft / 0.99 mi S
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002419945*
EPA Identifier	110002419945
Primary Name	AVIBANK MANUFACTURING INC
Address	11500 SHERMAN WAY
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605-5827
NAICS Codes	332722, 332813
SIC Codes	3429
SIC Descriptions	HARDWARE, NOT ELSEWHERE CLASSIFIED
Programs	BR, CA-ENVIROVIEW, HWTS-DATAMART, ICIS, RCRAINFO, TRIS
Program Interests	ENFORCEMENT/COMPLIANCE ACTIVITY, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	29-JUL-2016 11:55:09
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	BOLT, NUT, SCREW, RIVET, AND WASHER MANUFACTURING., ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US RCRA Generators (CESQG, SQG, LQG)

Location	34.21959, -118.3703
Distance to site	5264 ft / 1 mi E
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110002660567*
EPA Identifier	110002660567
Primary Name	ABBOTT TRANSISTOR LABS INC
Address	8203 VINELAND
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
Programs	RCRAINFO
Program Interests	SQG
Updated On	29-DEC-2014 08:55:42
Recorded On	01-MAR-2000 00:00:00

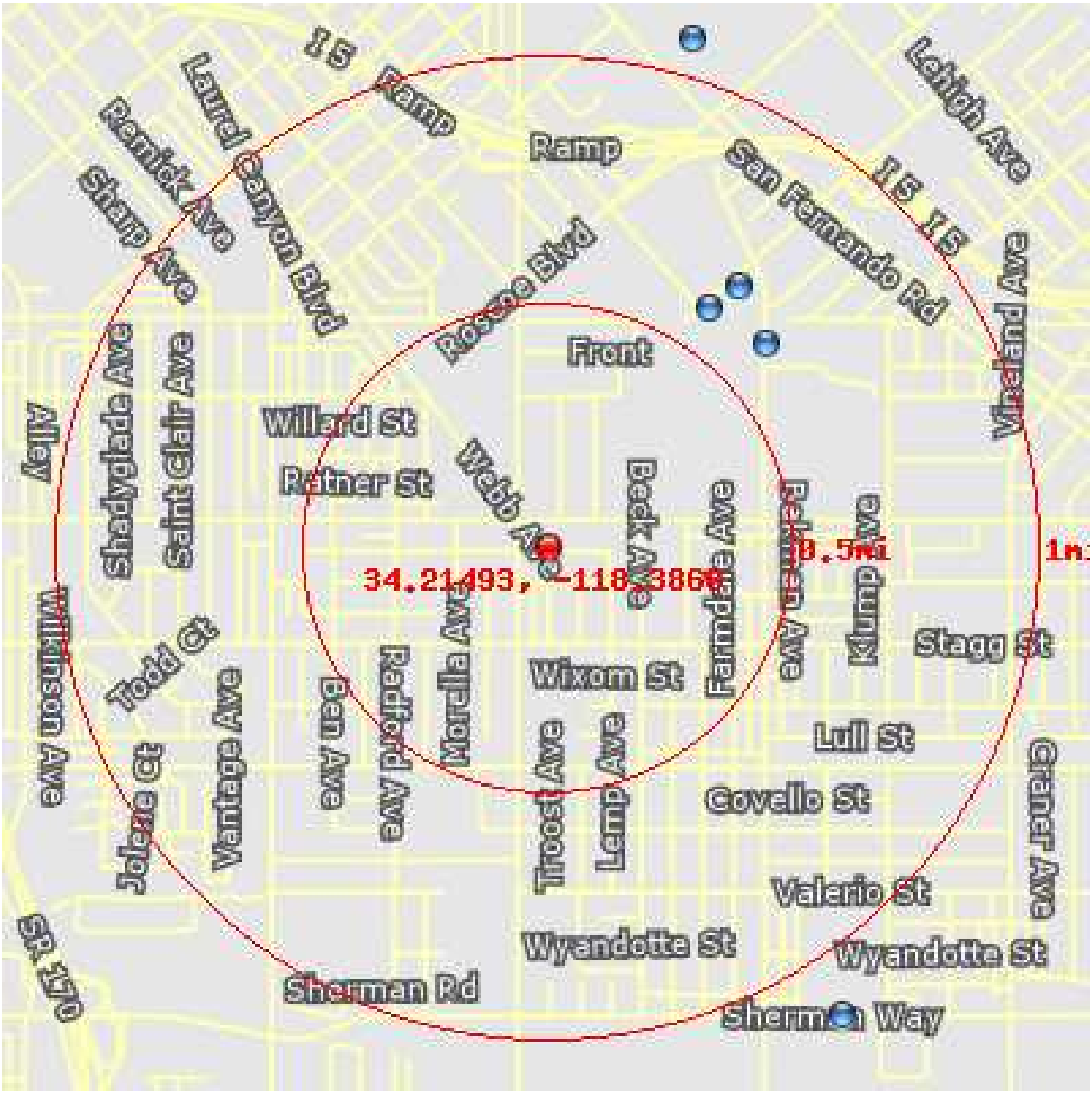
Location	34.20288, -118.3965
Distance to site	5280 ft / 1 mi SW
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110032642424*
EPA Identifier	110032642424
Primary Name	HD SUPPLY REPAIR AND REMODEL LLC CW0004
Address	7250 LAUREL CANYON BLVD
City	NORTH HOLLYWOOD
County	LOS ANGELES
State	CA
Zipcode	91605
SIC Codes	5211
SIC Descriptions	LUMBER AND OTHER BUILDING MATERIALS DEALERS
Programs	CA-CERS, CA-ENVIROVIEW, RCRAINFO
Program Interests	SQG, STATE MASTER
Updated On	15-OCT-2015 07:37:17
Recorded On	21-NOV-2007 11:34:32

US ACRES (Brownfields)

This database returned no results for your area.

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. The Assessment, Cleanup and Redevelopment Exchange System (ACRES) is an online database for Brownfields Grantees to electronically submit data directly to The United States Environmental Protection Agency (EPA)

US NPDES



This database returned 3 results for your area.

The NPDES module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

US NPDES

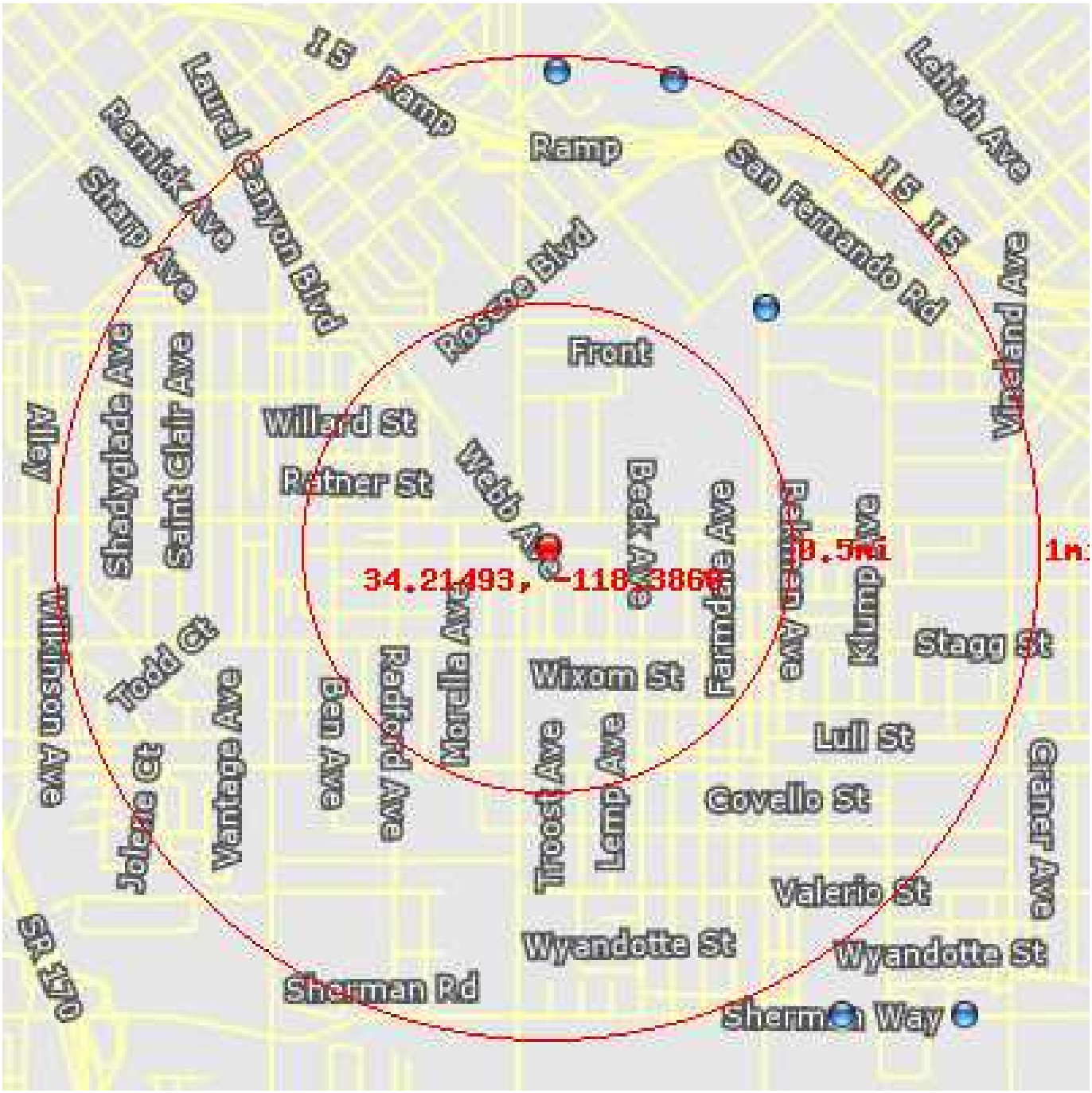
Location	34.22183, -118.3811
Distance to site	3064 ft / 0.58 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110065757238*
EPA Identifier	110065757238
Primary Name	BLUE DIAMOND MATERIALS
Address	11462 W PENROSE ST
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
SIC Codes	1611, 2951
SIC Descriptions	ASPHALT PAVING MIXTURES AND BLOCKS, HIGHWAY AND STREET CONSTRUCTION, EXCEPT ELEVATED HIGHWAYS
Programs	CA-ENVIROVIEW, NPDES
Program Interests	NPDES PERMIT, STATE MASTER, STORM WATER INDUSTRIAL
Updated On	03-JUN-2016 16:51:48
Recorded On	13-OCT-2015 14:19:22

Location	34.22085, -118.379
Distance to site	3197 ft / 0.61 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110064611889*
EPA Identifier	110064611889
Primary Name	A 1 METALS RECYCLING
Address	8250 TUJUNGA AVE
City	SUN VALLEY
County	LOS ANGELES COUNTY
State	CA
Zipcode	91352
Programs	NPDES
Program Interests	NPDES PERMIT, STORM WATER INDUSTRIAL
Updated On	11-JAN-2016 12:33:22
Recorded On	18-AUG-2015 11:27:00

US NPDES

Location	34.22249, -118.38
Distance to site	3447 ft / 0.65 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110067609350*
EPA Identifier	110067609350
Primary Name	HOLIDAY ROCK SUN VALLEY 19
Address	11420 PENROSE STREET
City	SUN VALLEY
County	LOS ANGELES COUNTY
State	CA
Zipcode	91352
Programs	NPDES
Program Interests	NPDES PERMIT, STORM WATER INDUSTRIAL
Updated On	05-JUL-2016 14:18:19
Recorded On	09-MAY-2016 09:51:32

US Air Facility System (AIRS / AFS)



This database returned 3 results for your area.

The Air Facility System (AIRS / AFS) contains compliance and permit data for stationary sources of air pollution (such as electric power plants, steel mills, factories, and universities) regulated by EPA, state and local air pollution agencies. The information in AFS is used by the states to prepare State Implementation Plans (SIPs) and to track the compliance status of point sources with various regulatory programs under Clean Air Act.

US Air Facility System (AIRS / AFS)

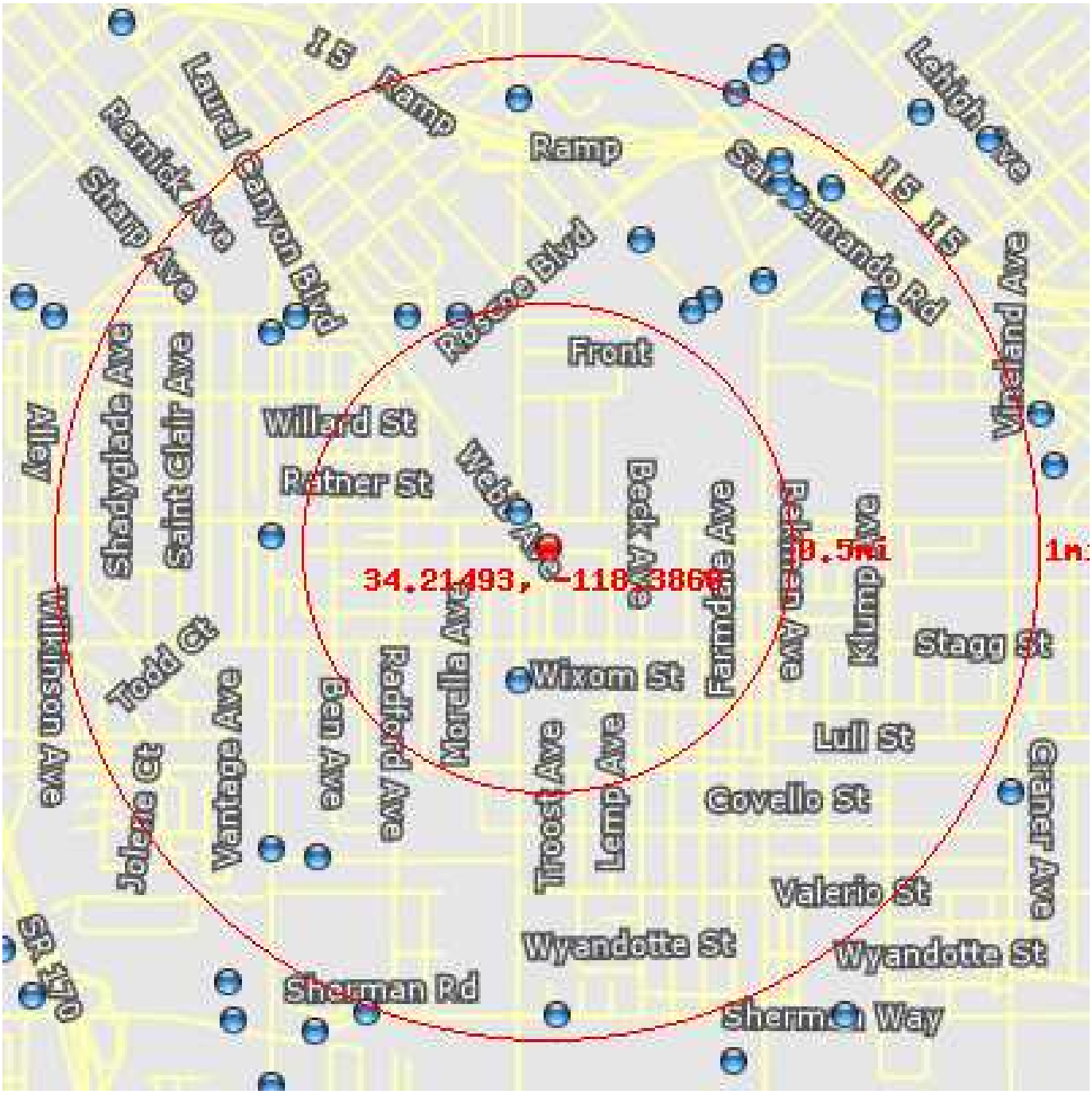
Location	34.22187, -118.379
Distance to site	3462 ft / 0.66 mi NE
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110040883416*
EPA Identifier	110040883416
Primary Name	PENROSE LANDFILL GAS CONVERSION LLC
Address	8301 TUJUNGA AVE
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-3215
NAICS Codes	221112, 221118, 221119
SIC Codes	4931
SIC Descriptions	ELECTRIC AND OTHER SERVICES COMBINED
Programs	AIR, AIRS/AFS, BR, EIS, HWTS-DATAMART, RCRAINFO
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MAJOR, HAZARDOUS AIR POLLUTANT MAJOR, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER
Updated On	15-OCT-2015 07:36:57
Recorded On	20-MAY-2010 09:55:55
NAICS Descriptions	FOSSIL FUEL ELECTRIC POWER GENERATION., OTHER ELECTRIC POWER GENERATION.

Location	34.2288, -118.3864
Distance to site	5063 ft / 0.96 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110000476976*
EPA Identifier	110000476976
Primary Name	LMDD ENTERPRISES-DIXON HARD CHROME
Address	11645 PENDLETON ST.
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352-2594
NAICS Codes	332813
SIC Codes	3471
SIC Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING
Programs	AIR, AIRS/AFS, BR, CA-ENVIROVIEW, EIS, HWTS-DATAMART, RCRAINFO, TRIS
Program Interests	AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MINOR, HAZARDOUS WASTE BIENNIAL REPORTER, LQG, STATE MASTER, TRI REPORTER
Updated On	14-OCT-2015 09:13:49
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ELECTROPLATING, PLATING, POLISHING, ANODIZING, AND COLORING.

US Air Facility System (AIRS / AFS)

Location	34.22855, -118.3823
Distance to site	5157 ft / 0.98 mi N
Info URL	*http://ofmpub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110001167004*
EPA Identifier	110001167004
Primary Name	BUILDERS FENCE CO INC
Address	8757 SAN FERNANDO RD
City	SUN VALLEY
County	LOS ANGELES
State	CA
Zipcode	91352
NAICS Codes	332323
SIC Codes	3400, 3446
SIC Descriptions	ARCHITECTURAL AND ORNAMENTAL METALWORK
Programs	AIR, AIRS/AFS, CA-ENVIROVIEW, EIS
Program Interests	AIR MAJOR, HAZARDOUS AIR POLLUTANT MAJOR, STATE MASTER
Updated On	14-OCT-2015 09:08:09
Recorded On	01-MAR-2000 00:00:00
NAICS Descriptions	ORNAMENTAL AND ARCHITECTURAL METAL WORK MANUFACTURING.

CA Registered Underground Storage Tanks



This database returned 22 results for your area.

Underground storage tanks containing hazardous or petroleum substances are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The State Water Resources Control Board"s GeoTracker database provides the list of permitted Underground Storage Tanks (UST).

CA Registered Underground Storage Tanks

Location	34.21588, -118.3878
Distance to site	448 ft / 0.08 mi NW
Site Name	ARCO SS# 5200
Permitting Agency	LOS ANGELES, CITY OF
Address	8004 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.21095, -118.3878
Distance to site	1481 ft / 0.28 mi S
Site Name	PACIFIC BELL
Permitting Agency	LOS ANGELES, CITY OF
Address	7744 LANKERSHIM BLVD
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.22161, -118.3898
Distance to site	2601 ft / 0.49 mi NW
Site Name	SUN VALLEY SERVICE CENTER
Permitting Agency	LOS ANGELES, CITY OF
Address	11761 ROSCOE BLVD
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22162, -118.3917
Distance to site	2854 ft / 0.54 mi NW
Site Name	ARCO #9588
Permitting Agency	LOS ANGELES, CITY OF
Address	11870 ROSCOE BLVD
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.21519, -118.3965
Distance to site	2928 ft / 0.55 mi W
Site Name	TOSCO CORPORATION #30624
Permitting Agency	LOS ANGELES, CITY OF
Address	7955 LAUREL CANYON BLVD
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

CA Registered Underground Storage Tanks

Location	34.22174, -118.3816
Distance to site	2939 ft / 0.56 mi NE
Site Name	WESTERN WASTE
Permitting Agency	LOS ANGELES, CITY OF
Address	11473 PENROSE ST
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22211, -118.3811
Distance to site	3145 ft / 0.6 mi NE
Site Name	BORAL RESOURSES
Permitting Agency	LOS ANGELES, CITY OF
Address	11462 PENROSE ST
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22388, -118.3835
Distance to site	3421 ft / 0.65 mi N
Site Name	LAINER INDUSTRIES
Permitting Agency	LOS ANGELES, CITY OF
Address	8515 TELFAIR AVE
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22163, -118.3956
Distance to site	3609 ft / 0.68 mi NW
Site Name	ARCO #1959
Permitting Agency	LOS ANGELES, CITY OF
Address	12050 ROSCOE BLVD
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.22268, -118.3791
Distance to site	3659 ft / 0.69 mi NE
Site Name	MANNING FUEL, INC.
Permitting Agency	LOS ANGELES, CITY OF
Address	8407 TUJUNGA AVE
City	SUN VALLEY
Zip	91352
County	Los Angeles

CA Registered Underground Storage Tanks

Location	34.2211, -118.3965
Distance to site	3690 ft / 0.7 mi NW
Site Name	CHEVRON STATION #9-6611
Permitting Agency	LOS ANGELES, CITY OF
Address	8263 LAUREL CANYON BLVD
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.20576, -118.3949
Distance to site	4141 ft / 0.78 mi SW
Site Name	RICHARD ANGELO STAY-GREENINC
Permitting Agency	LOS ANGELES, CITY OF
Address	12035 RUNNYMEDE ST
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.20604, -118.3965
Distance to site	4370 ft / 0.83 mi SW
Site Name	ARCO SERVICE STATION
Permitting Agency	LOS ANGELES, CITY OF
Address	7441 LAUREL CANYON BLVD
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.2221, -118.3751
Distance to site	4399 ft / 0.83 mi NE
Site Name	ORESTES PENA TRUCKING
Permitting Agency	LOS ANGELES, CITY OF
Address	11253 VINEDALE ST
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22157, -118.3747
Distance to site	4403 ft / 0.83 mi NE
Site Name	YELLOW FREIGHT SYSTEM, INC
Permitting Agency	LOS ANGELES, CITY OF
Address	11300 PEORIA ST
City	SUN VALLEY
Zip	91352
County	Los Angeles

CA Registered Underground Storage Tanks

Location	34.22512, -118.378
Distance to site	4582 ft / 0.87 mi NE
Site Name	TIMM FUEL & TIRE SERVICE,INC.
Permitting Agency	LOS ANGELES, CITY OF
Address	8579 SAN FERNANDO RD
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22548, -118.3785
Distance to site	4605 ft / 0.87 mi NE
Site Name	ART'S TIRES & WHEELS
Permitting Agency	LOS ANGELES, CITY OF
Address	8601 SAN FERNANDO RD
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22801, -118.3877
Distance to site	4780 ft / 0.91 mi N
Site Name	SUPERFINE TEXACO
Permitting Agency	LOS ANGELES, CITY OF
Address	8730 LANKERSHIM BLVD
City	SUN VALLEY
Zip	91352
County	Los Angeles

Location	34.22618, -118.3786
Distance to site	4805 ft / 0.91 mi NE
Site Name	CARDLOCK FUELS
Permitting Agency	LOS ANGELES, CITY OF
Address	8620 SAN FERNANDO RD
City	SUN VALLEY
Zip	91352
County	Los Angeles

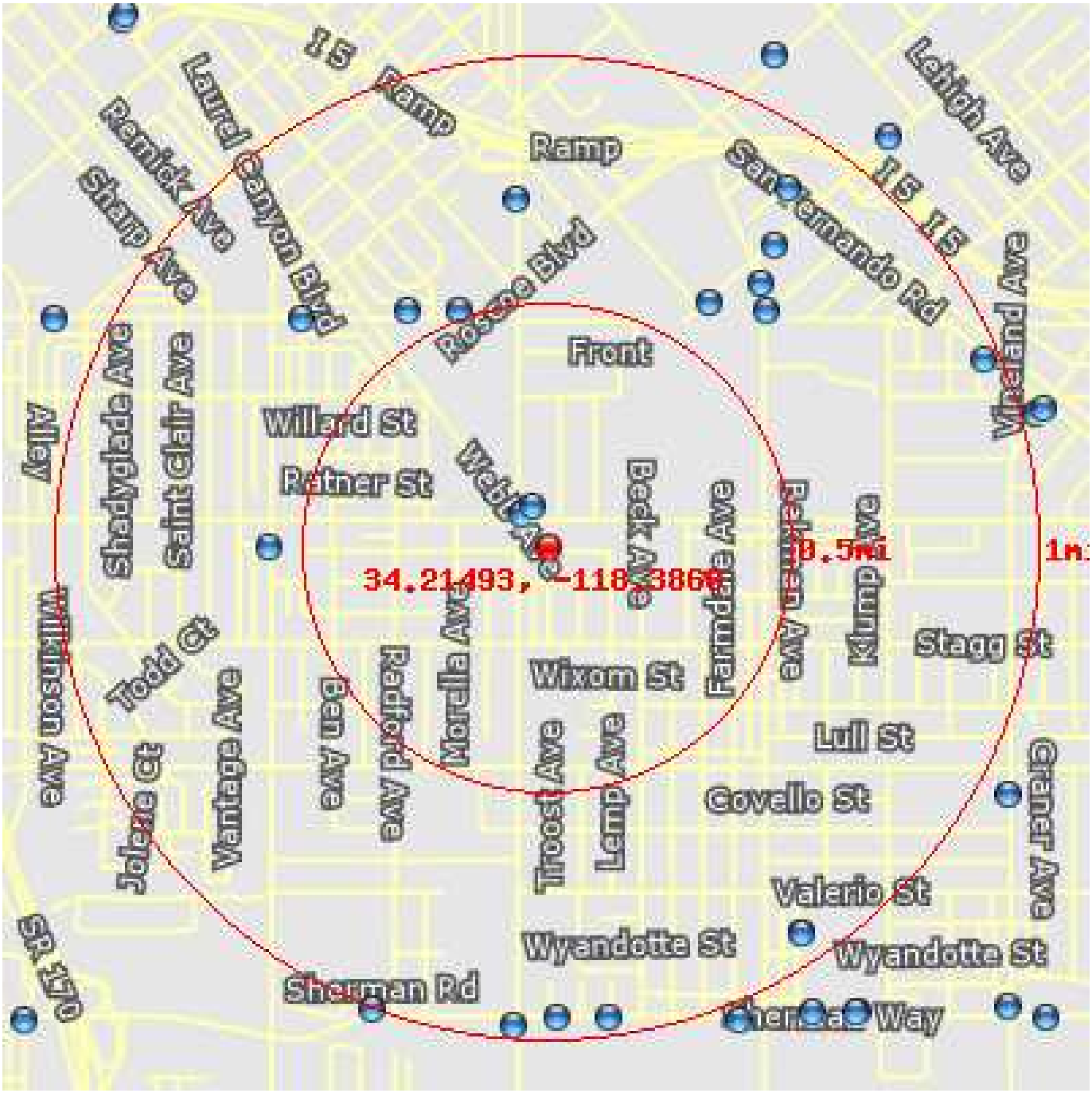
Location	34.22535, -118.3767
Distance to site	4879 ft / 0.92 mi NE
Site Name	SUN VALLEY FOOD COMPANY, INC
Permitting Agency	LOS ANGELES, CITY OF
Address	11275 PENROSE ST
City	SUN VALLEY
Zip	91352
County	Los Angeles

CA Registered Underground Storage Tanks

Location	34.20117, -118.3864
Distance to site	5023 ft / 0.95 mi S
Site Name	OLIVER GOLDSMITH MD ET AL
Permitting Agency	LOS ANGELES, CITY OF
Address	11668 SHERMAN WAY
City	NORTH HOLLYWOOD
Zip	91605
County	Los Angeles

Location	34.22816, -118.3801
Distance to site	5244 ft / 0.99 mi NE
Site Name	INDUSTRIAL ASPHALT
Permitting Agency	LOS ANGELES, CITY OF
Address	11447 TUXFORD ST
City	SUN VALLEY
Zip	91352
County	Los Angeles

CA Leaking Underground Storage Tanks



This database returned 17 results for your area.

Information on Leaking underground storage tanks containing hazardous or petroleum substances is maintained in the State Water Resources Control Board"s GeoTracker database.

CA Leaking Underground Storage Tanks

Location	34.21583, -118.3877
Distance to site	415 ft / 0.08 mi NW
Site Name	ARCO #5200
Site Street Number	8004
Site Street Name	LANKERSHIM BLVD
Site City	LOS ANGELES
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2016-03-14
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

Location	34.22174, -118.3898
Distance to site	2646 ft / 0.5 mi NW
Site Name	LA CITY DEPT WATER & POWER
Site Street Number	11761
Site Street Name	ROSCOE BLVD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1989-03-29
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.22174, -118.3917
Distance to site	2887 ft / 0.55 mi NW
Site Name	SHELL
Site Street Number	11870
Site Street Name	ROSCOE BLVD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1997-12-03
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

Location	34.21485, -118.3967
Distance to site	2961 ft / 0.56 mi W
Site Name	UNOCAL #4245
Site Street Number	7955
Site Street Name	LAUREL CANYON BLVD
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-09-20
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.22199, -118.3811
Distance to site	3111 ft / 0.59 mi NE
Site Name	BLACKTOP MATERIALS COMPANY
Site Street Number	11462
Site Street Name	PENROSE ST
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1995-09-07
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Soil

Location	34.22177, -118.379
Distance to site	3430 ft / 0.65 mi NE
Site Name	PACIFIC ENERGY
Site Street Number	8309
Site Street Name	TUJUNGA AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1997-10-06
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.22151, -118.3955
Distance to site	3539 ft / 0.67 mi NW
Site Name	ARCO #1959
Site Street Number	12050
Site Street Name	ROSCOE BLVD
Site City	LOS ANGELES
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-11-14
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

Location	34.22254, -118.3792
Distance to site	3604 ft / 0.68 mi NE
Site Name	MANNING FUEL INC
Site Street Number	8407
Site Street Name	TUJUNGA AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-02-27
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.22505, -118.3879
Distance to site	3707 ft / 0.7 mi N
Site Name	SWELLDOM COMPANY
Site Street Number	8531
Site Street Name	LANKERSHIM BLVD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-22
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

Location	34.22366, -118.3787
Distance to site	4016 ft / 0.76 mi NE
Site Name	ADVANCED PACKAGING TECHNIQUES
Site Street Number	11340
Site Street Name	PENROSE ST
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-22
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Alcohols
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.22535, -118.3783
Distance to site	4600 ft / 0.87 mi NE
Site Name	TEXACO - KEEBLE, ROBERT
Site Street Number	8579
Site Street Name	SAN FERNANDO RD
Site City	LOS ANGELES
Site State	CA
Site Zip	90031
Site County	Los Angeles
Status	Open - Remediation
Status Date	1994-05-26
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

Location	34.20353, -118.3778
Distance to site	4982 ft / 0.94 mi SE
Site Name	SUN VALLEY JUNIOR HIGH SCHOOL
Site Street Number	7330
Site Street Name	BAKMAN AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-05-02
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.20353, -118.3778
Distance to site	4982 ft / 0.94 mi SE
Site Name	SUN VALLEY JUNIOR HIGH SCHOOL
Site Street Number	7330
Site Street Name	BAKMAN AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-19
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	34.20106, -118.3864
Distance to site	5064 ft / 0.96 mi S
Site Name	KAISER PERMANENTE
Site Street Number	11668
Site Street Name	SHERMAN WAY
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-05-05
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Soil

CA Leaking Underground Storage Tanks

Location	34.22037, -118.3713
Distance to site	5080 ft / 0.96 mi E
Site Name	SOUTHLAND TRANSMISSIONS
Site Street Number	8283
Site Street Name	SAN FERNANDO RD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-31
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	34.20105, -118.3846
Distance to site	5113 ft / 0.97 mi S
Site Name	BENDIX CORP/ALLIED SIGNAL
Site Street Number	11600
Site Street Name	SHERMAN WY
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-05-05
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
File Location	Regional Board
Contaminant	* Solvents
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Leaking Underground Storage Tanks

Location	34.20087, -118.3879
Distance to site	5142 ft / 0.97 mi S
Site Name	TERRY LUMBER CO
Site Street Number	7151
Site Street Name	LANKERSHIM BLVD
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-04-30
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA CERCLIS Equivalent

This database returned no results for your area.

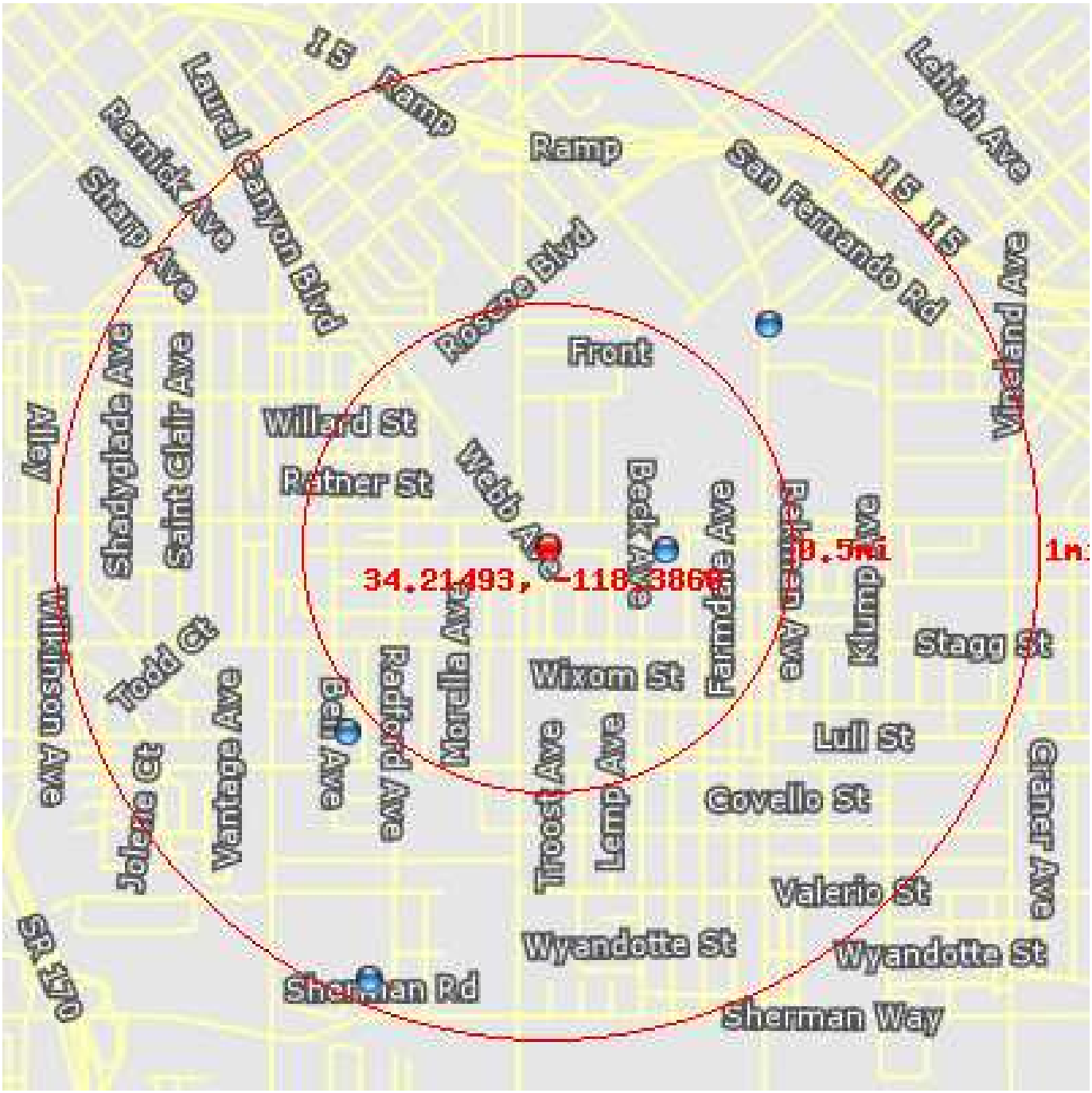
The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies CERCLIS equivalent sites as "State Response". These are sites known or suspected to contain uncontrolled or abandoned hazardous substance facilities.

CA NPL Equivalent

This database returned no results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies sites on the National Priority List (NPL). This is the equivalent of the Federal NPL identifying facilities and study areas with known contamination that are given priority for remedial action.

CA Hazardous Waste Sites



This database returned 4 results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies Hazardous Waste Sites. These include...

All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.

All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.

All sites listed pursuant to Section 25356 of the Health and Safety Code.

All sites included in the Abandoned Site Assessment Program.

CA Hazardous Waste Sites

Location	34.21478, -118.3826
Distance to site	1281 ft / 0.24 mi E
Site Name	ARMINTA STREET ELEMENTARY
Site Type	School Investigation
Site Type 2	School
Site Area (acres)	6
Project Supervisor	Javier Hinojosa
Envirostor ID	19820037
Status	No Further Action
Status Date	2002-12-11 00:00:00
Past Uses	* EDUCATIONAL SERVICES
Contaminant	SOIL, SV
Funding Source	School District
Address	11530 Strathern Street
City	North Hollywood
State	CA
Zip Code	91605
County	LOS ANGELES

Location	34.2094, -118.3938
Distance to site	2913 ft / 0.55 mi SW
Site Name	VALLEY REGION ES #7 SITE 14, 5640028
Site Type	School Cleanup
Site Type 2	School
Site Area (acres)	3.65
Project Manager	IVY GUANO
Project Supervisor	Shahir Haddad
Envirostor ID	60000093
Status	Certified
Status Date	2007-08-08 00:00:00
Past Uses	RESIDENTIAL AREA
Contaminant	SOIL
Funding Source	School District
Address	Saticoy Street/Gentry Avenue
City	North Hollywood
State	CA
Zip Code	91605
County	LOS ANGELES

CA Hazardous Waste Sites

Location	34.22139, -118.3789
Distance to site	3363 ft / 0.64 mi NE
Site Name	PENROSE SANITARY LANDFILL
Site Type	Historical
Site Type 2	* Historical
Project Supervisor	Referred - Not Assigned
Envirostor ID	19490188
Status	Refer: RWQCB
Status Date	1995-08-15 00:00:00
Past Uses	NONE SPECIFIED
Contaminant	NONE SPECIFIED
Address	8301 TUJUNGA AVENUE
City	SUN VALLEY
State	CA
Zip Code	91352
County	LOS ANGELES

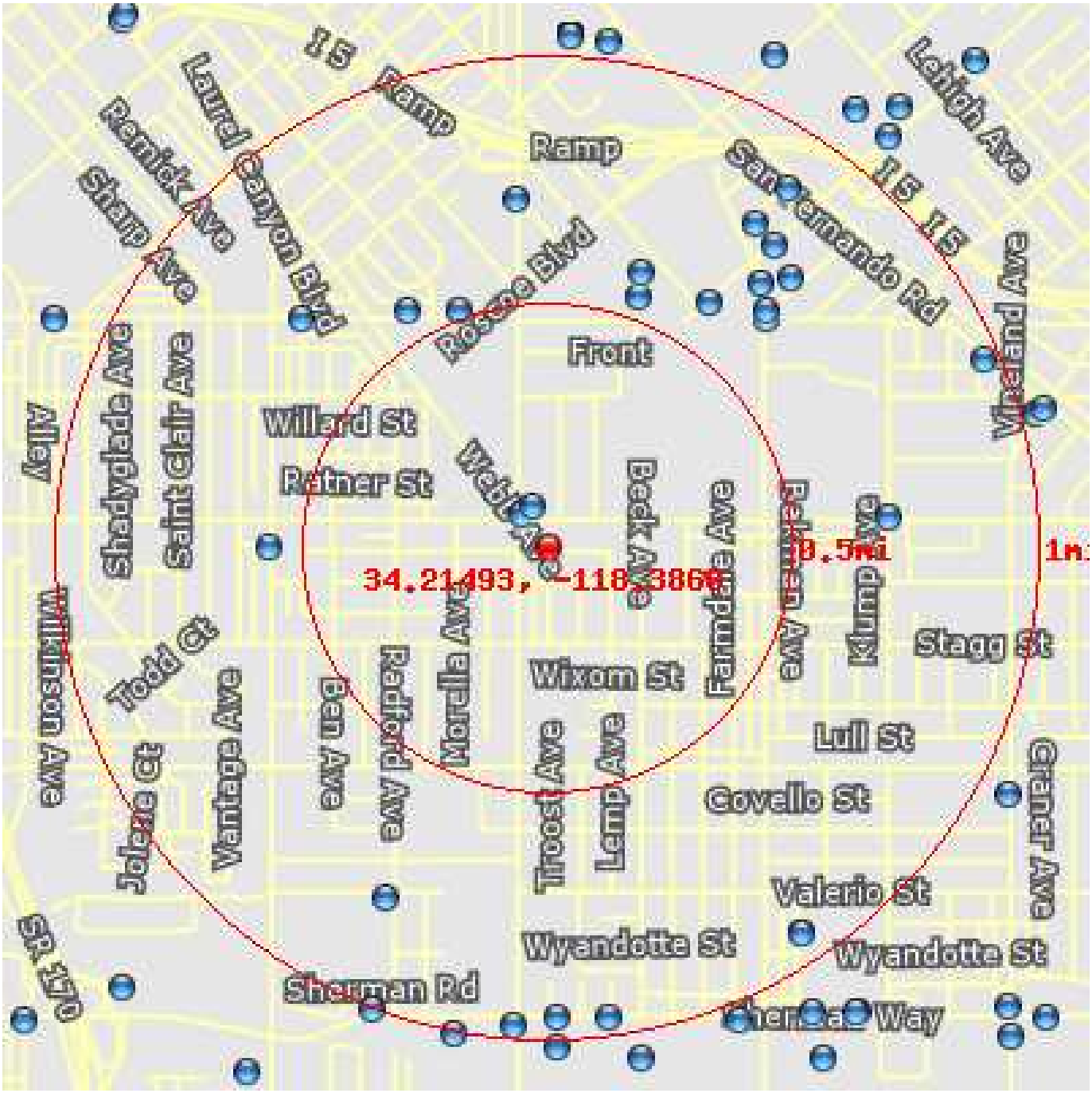
Location	34.20222, -118.3931
Distance to site	5004 ft / 0.95 mi SW
Site Name	NICKEL SOLUTION RECYCLING INC.
Site Type	Historical
Site Type 2	* Historical
Project Supervisor	* MMONROY
Envirostor ID	19290292
Status	Refer: Other Agency
Status Date	1995-08-31 00:00:00
Past Uses	NONE SPECIFIED
Contaminant	NONE SPECIFIED
Address	11940 SHERMAN ROAD
City	NORTH HOLLYWOOD
State	CA
Zip Code	91605
County	LOS ANGELES

CA Activity Use Restrictions

This database returned no results for your area.

Activity and Use Limitations (AULs), also known as Environmental Land-Use Controls (LUCs) – An AUL is a restriction, covenant or notice concerning the use of real property, which is imposed on real property. AULs and LUCs are further categorized as Institutional Controls (ICs) and Engineering Controls (ECs). An IC is a legal or regulatory restriction on the use of a property, limiting the use of groundwater and excavations or preventing such businesses as day care centers or schools on the property. An EC involves physical means of restricting site access or use in order to prevent the spreading or exposure of a contaminant. Frequently implemented engineering controls include requiring black top on the surface, building of structures to prevent exposure or even notices to the public that are posted on the grounds warning of contaminants.

CA Spills, Leaks, Investigations, and Cleanups



This database returned 25 results for your area.

The Spills, Leaks, Investigation & Cleanup (SLIC) Program is responsible for site investigation and corrective action involving sites not overseen by the Underground Tank Program and the Well Investigation Program. This program is not restricted to particular pollutants or environments; rather, the program covers all types of pollutants (such as solvents, petroleum fuels, and heavy metals) and all environments (including surface and water, groundwater, and the vadose zone). Upon confirming that an unauthorized discharge is polluting or threatens to pollute regional water bodies, the Regional Board oversees site investigation and corrective action. Statutory authority for the program is derived from the California Water Code, Division 7, Section 13304. Guidelines for site investigation and remediation are promulgated in State Board Resolution No. 92-49 entitled Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304.

CA Spills, Leaks, Investigations, and Cleanups

Location	34.21583, -118.3877
Distance to site	415 ft / 0.08 mi NW
Site Name	ARCO #5200
Site Street Number	8004
Site Street Name	LANKERSHIM BLVD
Site City	LOS ANGELES
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2016-03-14
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

Location	34.22174, -118.3898
Distance to site	2646 ft / 0.5 mi NW
Site Name	LA CITY DEPT WATER & POWER
Site Street Number	11761
Site Street Name	ROSCOE BLVD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1989-03-29
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

CA Spills, Leaks, Investigations, and Cleanups

Location	34.2222, -118.3835
Distance to site	2838 ft / 0.54 mi NE
Site Name	GOODWIN CHEMICAL FACILITY (FORMER)
Site Street Number	9007
Site Street Name	NORRIS ST
Site City	SUN VALLEY
Site State	CA
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2001-12-14
Lead Agency	LOS ANGELES RWQCB (REGION 4)

Location	34.22174, -118.3917
Distance to site	2887 ft / 0.55 mi NW
Site Name	SHELL
Site Street Number	11870
Site Street Name	ROSCOE BLVD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1997-12-03
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

Location	34.21485, -118.3967
Distance to site	2961 ft / 0.56 mi W
Site Name	UNOCAL #4245
Site Street Number	7955
Site Street Name	LAUREL CANYON BLVD
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-09-20
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

CA Spills, Leaks, Investigations, and Cleanups

Location	34.22286, -118.3835
Distance to site	3068 ft / 0.58 mi NE
Site Name	OCCUPANT-AUTO SHOP
Site Street Number	8431
Site Street Name	TELFAIR AVE.
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Open - Site Assessment
Status Date	1990-09-10
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Contaminated Medium	Aquifer used for drinking water supply

Location	34.22199, -118.3811
Distance to site	3111 ft / 0.59 mi NE
Site Name	BLACKTOP MATERIALS COMPANY
Site Street Number	11462
Site Street Name	PENROSE ST
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1995-09-07
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Soil

Location	34.22151, -118.3791
Distance to site	3360 ft / 0.64 mi NE
Site Name	PACIFIC ENERGY
Site Street Number	8301
Site Street Name	TUJUNGA AVE.
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Open - Remediation
Status Date	1996-09-18
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Contaminated Medium	Aquifer used for drinking water supply

CA Spills, Leaks, Investigations, and Cleanups

Location	34.22151, -118.3791
Distance to site	3360 ft / 0.64 mi NE
Site Name	PENROSE LANDFILL
Site Street Number	8301
Site Street Name	Tujunga
Site City	LOS ANGELES
Site State	CA
Site Zip	91352
Site County	Inyo
Status	Open
Status Date	1965-01-01

Location	34.22177, -118.379
Distance to site	3430 ft / 0.65 mi NE
Site Name	PACIFIC ENERGY
Site Street Number	8309
Site Street Name	TUJUNGA AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1997-10-06
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

Location	34.22151, -118.3955
Distance to site	3539 ft / 0.67 mi NW
Site Name	ARCO #1959
Site Street Number	12050
Site Street Name	ROSCOE BLVD
Site City	LOS ANGELES
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-11-14
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

CA Spills, Leaks, Investigations, and Cleanups

Location	34.22254, -118.3792
Distance to site	3604 ft / 0.68 mi NE
Site Name	MANNING FUEL INC
Site Street Number	8407
Site Street Name	TUJUNGA AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-02-27
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

Location	34.21569, -118.3747
Distance to site	3678 ft / 0.7 mi E
Site Name	STRATHERN LANDFILL
Site Street Number	11201
Site Street Name	Strathern
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Open
Status Date	1965-01-01

Location	34.22505, -118.3879
Distance to site	3707 ft / 0.7 mi N
Site Name	SWELLDOM COMPANY
Site Street Number	8531
Site Street Name	LANKERSHIM BLVD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-22
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Soil

CA Spills, Leaks, Investigations, and Cleanups

Location	34.22273, -118.3782
Distance to site	3868 ft / 0.73 mi NE
Site Name	PRIME PLATING
Site Street Number	11321
Site Street Name	GOSS ST.
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Open - Site Assessment
Status Date	1997-07-01
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Contaminated Medium	Aquifer used for drinking water supply

Location	34.22366, -118.3787
Distance to site	4016 ft / 0.76 mi NE
Site Name	ADVANCED PACKAGING TECHNIQUES
Site Street Number	11340
Site Street Name	PENROSE ST
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-22
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Alcohols
Contaminated Medium	Soil

Location	34.22433, -118.3794
Distance to site	4105 ft / 0.78 mi NE
Site Name	LADO MFG. CO.
Site Street Number	11400
Site Street Name	LUDDINGTON ST. #A
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Open - Site Assessment
Status Date	1992-12-30
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Contaminated Medium	Aquifer used for drinking water supply

CA Spills, Leaks, Investigations, and Cleanups

Location	34.20455, -118.3925
Distance to site	4152 ft / 0.79 mi SW
Site Name	ELECTROMATIC INC.
Site Street Number	7351
Site Street Name	RADFORD AVE.
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Open - Site Assessment
Status Date	1987-03-27
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Contaminated Medium	Aquifer used for drinking water supply

Location	34.22535, -118.3783
Distance to site	4600 ft / 0.87 mi NE
Site Name	TEXACO - KEEBLE, ROBERT
Site Street Number	8579
Site Street Name	SAN FERNANDO RD
Site City	LOS ANGELES
Site State	CA
Site Zip	90031
Site County	Los Angeles
Status	Open - Remediation
Status Date	1994-05-26
Lead Agency	LOS ANGELES, CITY OF
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Soil

Location	34.20353, -118.3778
Distance to site	4982 ft / 0.94 mi SE
Site Name	SUN VALLEY JUNIOR HIGH SCHOOL
Site Street Number	7330
Site Street Name	BAKMAN AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-19
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Spills, Leaks, Investigations, and Cleanups

Location	34.20353, -118.3778
Distance to site	4982 ft / 0.94 mi SE
Site Name	SUN VALLEY JUNIOR HIGH SCHOOL
Site Street Number	7330
Site Street Name	BAKMAN AVE
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-05-02
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Soil

Location	34.20106, -118.3864
Distance to site	5064 ft / 0.96 mi S
Site Name	KAISER PERMANENTE
Site Street Number	11668
Site Street Name	SHERMAN WAY
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-05-05
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Diesel
Contaminated Medium	Soil

CA Spills, Leaks, Investigations, and Cleanups

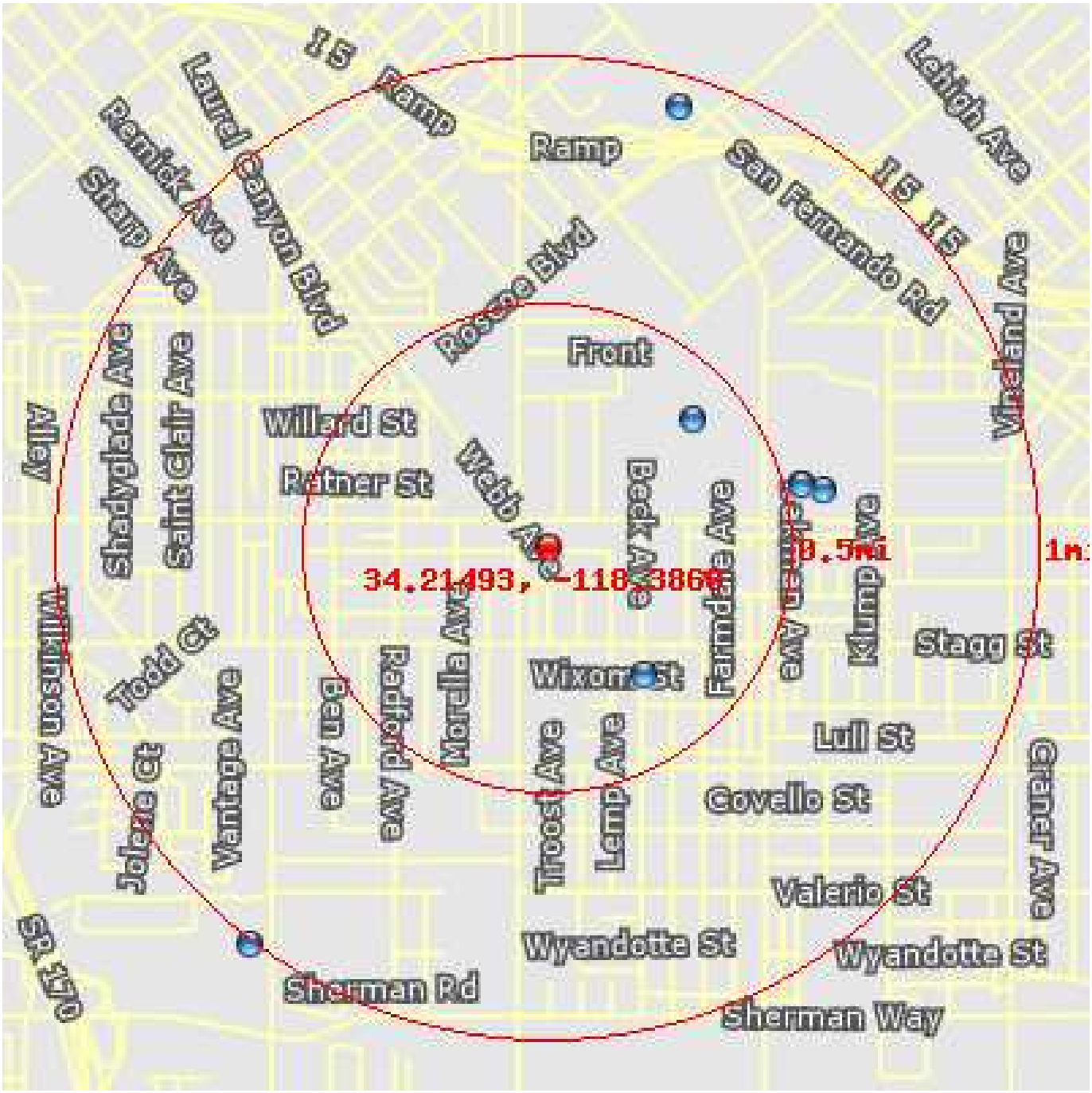
Location	34.22037, -118.3713
Distance to site	5080 ft / 0.96 mi E
Site Name	SOUTHLAND TRANSMISSIONS
Site Street Number	8283
Site Street Name	SAN FERNANDO RD
Site City	SUN VALLEY
Site State	CA
Site Zip	91352
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	1996-07-31
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Aviation
Contaminated Medium	Other Groundwater (uses other than drinking water)

Location	34.20105, -118.3846
Distance to site	5113 ft / 0.97 mi S
Site Name	BENDIX CORP/ALLIED SIGNAL
Site Street Number	11600
Site Street Name	SHERMAN WY
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-05-05
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
File Location	Regional Board
Contaminant	* Solvents
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Spills, Leaks, Investigations, and Cleanups

Location	34.20087, -118.3879
Distance to site	5142 ft / 0.97 mi S
Site Name	TERRY LUMBER CO
Site Street Number	7151
Site Street Name	LANKERSHIM BLVD
Site City	NORTH HOLLYWOOD
Site State	CA
Site Zip	91605
Site County	Los Angeles
Status	Completed - Case Closed
Status Date	2003-04-30
Lead Agency	LOS ANGELES RWQCB (REGION 4)
Local Agency	LOS ANGELES, CITY OF
Contaminant	Gasoline
Contaminated Medium	Other Groundwater (uses other than drinking water)

CA Solid Waste Landfills



This database returned 6 results for your area.

The Solid Waste Landfill List (SWLF) database is provided by the California Solid Waste Information System (SWIS) and consists of both open as well as closed inactive solid waste disposal facilities and transfer stations pursuant to the Solid Waste Management and Resource Recovery Act of 1972.

CA Solid Waste Landfills

Location	34.21111, -118.3833
Distance to site	1751 ft / 0.33 mi SE
Site Name	Hewitt Pit Landfill
County	Los Angeles
Address	7361 Laurel Cyn. Road
City	North Hollywood (In Los Angeles)

Location	34.2186, -118.3816
Distance to site	2072 ft / 0.39 mi NE
Site Name	Penrose Pit
Land Use	Residential,Industrial,Commercial
County	Los Angeles
Address	8251 - 8301 Tujunga Avenue
City	Sun Valley (In Los Angeles)

Location	34.21667, -118.3778
Distance to site	2808 ft / 0.53 mi E
Site Name	Tujunga Pit
Land Use	Commercial
County	Los Angeles
Address	8250 Tujunga Ave.
City	Sun Valley (In Los Angeles)

Location	34.21667, -118.3778
Distance to site	2808 ft / 0.53 mi E
Site Name	Tuxford Pit Disposal Site
Land Use	Industrial,Commercial
County	Los Angeles
Address	11590 Tuxford street
City	Sun Valley (In Los Angeles)

Location	34.2165, -118.377
Distance to site	3025 ft / 0.57 mi E
Site Name	Strathern Sanitary Landfill
Land Use	Residential,Industrial
County	Los Angeles
Address	11201 Strathern Street
City	Sun Valley (In Los Angeles)
Operator	Los Angeles By-Products Co

CA Solid Waste Landfills

Location	34.22771, -118.382
Distance to site	4883 ft / 0.92 mi N
Site Name	Sun Valley Paper Stock MRF and ST
Land Use	Urban,Industrial
County	Los Angeles
Address	8701 North San Fernando Road
City	Sun Valley (In Los Angeles)
Operator	Sun Valley Paper Stock TS and MRF

CA Oil and Gas Wells

This database returned no results for your area.

The California Department of Conservation, Division of Oil, Gas and Thermal Resources (DOGGR) was created to serve the needs of the state, local governments, and industry by regulating statewide oil and gas activities with uniform laws and regulations. The DOGGR supervises the drilling, operation, maintenance, and plugging and abandonment of onshore and offshore oil, gas, and geothermal wells, preventing damage to: (1) life, health, property, and natural resources; (2) underground and surface waters suitable for irrigation or domestic use; and (3) oil, gas and geothermal reservoirs.

CA Voluntary Cleanup Sites

This database returned no results for your area.

The Department of Toxic Substances Controls (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) EnviroStor database identifies Voluntary Cleanup sites. These sites include low threat level properties with confirmed or unconfirmed releases. The responsible parties have requested that DTSC oversee investigation and/or cleanup activities and agreed to offset DTSC expenses.

Appendix G
Hydrology and Utility Report

ZEITOUNY & ASSOCIATES

18243 Senteno Street, Rowland Heights CA 91748 Tel. (323)892-1168
zeitounyc@gmail.com

7940 Lankershim Blvd. N Hollywood CA 91605.

Utility Narrative

Existing Conditions

Topography and drainage

The existing site area consisting of 6 lots (approximately 4.7 acres pre-dedication) generally slopes southwest towards Arminta Street at a rate of about 1%. There is a drainage inlet on Strathern Street with a curb drain on Blyth Street. As the site is 4.7 % impervious, the project has a volume of 2,531 cubic feet for an 85^{th} Percentile storm. Based on a 50-year storm event, the existing peak discharge is 6.6 cubic feet per second.

Storm Drain

Storm water runs easterly on Strathern Street and southerly on Lankershim Blvd. There exists a storm drain inlet located at the south east corner of Strathern Street & Lankershim Blvd. also another Strom drain culvert located next to the alley at 11650 Strathern Street Just east of the project site.

Sanitary Sewer

There exist public sanitary sewer main lines adjacent to the project. The City of Los Angeles Sanitation Department own and maintain such sewer lines.

- Lankershim Blvd - 8 inches vitrified clay pipe (VCP) and is running north to south.
- Strathern Street - 8 inches vitrified clay pipe (VCP) and is running west to east.

The Site is located within The City of Los Angeles Valley District Sewer Map 1043-A and Wye Map 1043-A.

Domestic /Fire Water

The existing water main lines near the project are owned and maintained by the Los Angeles Department of Water & Power. An existing main lie exists on Lankershim Blvd. & Strathern Street and can serve the proposed project.

- Lankershim Blvd - 8 inch main line.

ZEITOUNY & ASSOCIATES

18243 Senteno Street, Rowland Heights CA 91748 Tel. (323)892-1168
zeitounyc@gmail.com

- Strathern Street - 8 inch main line.

Two existing fire hydrant are located adjacent to the site.

Fire hydrant ID 58276 is located at the corner of Blyth Street and Lankershim Blvd. right across the project site. Fire hydrant ID 61657 located on Strathern Street is located just south of the project site.

Proposed Development

Storm Drain

The project will be designed to comply with the City of Los Angeles latest Low Impact Development (LID) Design Standards. Based on the Soil report performed by Twining Consulting Inc.; ground water was not encountered within the deepest exploratory boring at a depth of approximately 50 1/2 feet below the existing grade. After development of the project, the proposed impervious area would be 20 %, with a volume of 4,782 cubic feet for an 85th percentile storm. The 50 year event peak discharge would be 6.6 cubic feet per second. So a design of Dry well to treat the storm water will be implemented.

Sanitary Sewer

Based on input from the Developer and Client a proposed facility Description was submitted to the City Of Los Angeles Bureau Of Engineering for the generation of Sewer Capacity Availability Report. The estimated proposed total flow based on the proposed facility description is 72,220 gallons per day (GPD). Points of connections can be either on Strathern Street or On Lankershim Blvd and will be determined by the Plumbing Engineer during design.

Domestic / Fire Water

The proposed size and locations for the domestic water and fire water points of connection will be determined by the Plumbing Engineer and Fire Sprinkler Engineer, respectively during design. The location of the double detector check assembly and fire department connection will be determined based on feedback from the City of Los Angeles Fire Department. LADWP will coordinate with accordingly based on the final location both domestic and fire water points of connection.



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DEPARTMENT OF PUBLIC WORKS

BUREAU OF ENGINEERING

GARY LEE MOORE, PE, ENV SP
CITY ENGINEER

1149 S BROADWAY, SUITE 700
LOS ANGELES, CA 90015-2213

http://eng.lacity.org

08/21/2019

CAMILLE ZEITOUNY
18243 SENTENO
ROWLAND HEIGHTS, CA, 91748

Dear CAMILLE ZEITOUNY,

SEWER AVAILABILITY: 7940 LANKERSHIM BLVD

The Bureau of Sanitation has reviewed your request of 08/14/2019 for sewer availability at **7940 LANKERSHIM BLVD**. Based on their analysis, it has been determined on 08/21/2019 that there is capacity available to handle the anticipated discharge from your proposed project(s) as indicated in the attached copy of the Sewer Capacity Availability Request (SCAR) .

This determination is valid for 180 days from the date shown on the Sewer Capacity Availability request (SCAR) approved by the Bureau of Sanitation.

While there is hydraulic capacity available in the local sewer system at this time, availability of sewer treatment capacity will be determined at the Bureau of Engineering Public Counter upon presentation of this letter. A Sewer Connection Permit may also be obtained at the same counter provided treatment capacity is available at the time of application.

A Sewerage Facilities Charge is due on all new buildings constructed within the City. The amount of this charge will be determined when application is made for your building permit and the Bureau of Engineering has the opportunity to review the building plans. To facilitate this determination a preliminary set of plans should be submitted to Bureau of Engineering District Office, Public Counter.

Provision for a clean out structure and/or a sewer trap satisfactory to the Department of Building and Safety may be required as part of the sewer connection permit.

Sincerely,

Christine Reusch

Valley District, Bureau of Engineering

Scar Request Number: 3080

City of Los Angeles
Bureau of Engineering

SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

The SCARF is based on the effort required to perform data collection and engineering analysis in completing a SCAR. A brief summary of that effort includes, but is not limited to, the following:

1. Research and trace sewer flow levels upstream and downstream of the point of connection.
2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
3. Review recent gauging data and in some cases closed circuit TV inspection (CCTV) videos.
4. Perform gauging and CCTV inspection if recent data is not available.
5. Research the project location area for other recently approved SCARs to evaluate the cumulated impact of all known SCARs on the sewer system.
6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs from Item 6 above. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to insure sufficient capacity exist throughout the system.
7. Correspond with the applicant for additional information and project and clarification as necessary.
8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point of connection.

Questions and Answers:

1. **When is the SCARF applied, or charged?**
   It applies to all applicants seeking a Sewer Capacity Availability Review (SCAR). SCARs are generally required for Sewer Facility Certificate applications exceeding 10,000 gpd, or request from a property owner seeking to increase their discharge thru their existing connection by 10,000 gpd or more, or any groundwater related project that discharges 10,000 gpd or more, or any proposed or future development for a project that could result in a discharge of 10,000 gpd.
2. **Why is the SCARF being charged now when it has not been in the past?**
   The City has seen a dramatic increase in the number of SCARs over 10,000 gpd in the last few years and has needed to increase its resources, i.e., staff and gauging efforts, to respond to them. The funds collected thru SCARF will help the City pay for these additional resources and will be paid by developers and property owners that receive the benefit from the SCAR effort.
3. **Where does the SCARF get paid?**
   The Department of Public Works, Bureau of Engineering (BOE) collects the fee at its public counters. Once the fee is paid then BOE prepares a SCAR request and forwards it to the BOS where it is reviewed and then returned to BOE. BOE then informs the applicant of the result. In some cases, BOS works directly with the applicant during the review of the SCAR to seek additional information and work out alternative solutions

City of Los Angeles
Bureau of Engineering

Sewer Capacity Availability Request (SCAR)

To: Bureau of Sanitation
The following request is submitted to you on behalf of the applicant requesting to connect to the public sewer system. Please verify that the capacity exists at the requested location for the proposed developments shown below. The results are good for 180 days from the date the sewer capacity approval from the Bureau of Sanitation.

Job Address:	**7940 LANKERSHIM BLVD**	Sanitation Scar ID:	**64-4774-0819**
Date Submitted	08/14/2019	Request Will Serve Letter?	Yes
BOE District:	Valley District		
Applicant:	CAMILLE ZEITOUNY		
Address:	18243 SENTENO	City :	ROWLAND HEIGHTS
State:	CA	Zip:	91748
Phone:	3238921168	Fax:	
Email:	ZEITOUNYC@GMAIL.COM	BPA No.	
S-Map:	1043-A	Wye Map:	1043-A

SIMM Map - Maintenance Hole Locations

No.	Street Name	U/S MH	D/S MH	Diam. (in)	Approved Flow %	Notes
1	STRATHERN ST	40005034	40005033	8	50.00	UNKNOWN, WHICH LATERAL WILL BE USED DURING CONSTRUCTION FOR PROJECT
2	LANKERSHIM BLVD	40005032	40005055	8	50.00	UNKNOWN, WHICH LATERAL WILL BE USED DURING CONSRTRUCTION FOR PROJECT

Proposed Facility Description

No.	Proposed Use Description	Sewage Generation (GPD)	Unit	Qty	GPD
1	RESIDENTIAL: APT - 1 BDRM. *6	110	DU	72	7,920
2	RESIDENTIAL: APT - 2 BDRMS *6	150	DU	180	27,000
3	RESIDENTIAL: APT - 3 BDRMS *6	190	DU	180	34,200
4	RESTAURANT: FULL SERVICE INDOOR SEAT	30	SEAT	80	2,400
5	RETAIL AREA (GREATER THAN or EQUAL TO 100,000 SF)	50	KGSF	14,000	700
				Proposed Total Flow (gpd):	**72,220**

Remarks: 1] This SCAR supersedes previous ID 64-4712-0719. 2] Approved for the maximum allowable capacity of 72,220 GPD (50.15 gpm).3] Discharge as indicated on SCAR letter. Developer may choose one discharge at 100% proposed flow. 4] IWMD permit required.

Note: Results are good for 180 days from the date of approval by the Bureau of Sanitation

Date Processed: 08/21/2019 Expires On: 02/17/2020

Scar Request Number: 3080

Processed by:	Albert Lew Bureau of Sanitation Phone: 323-342-6207 Sanitation Status: Approved Reviewed by: Ricardo Avendano on 08/20/2019	Submitted by:	Christine Reusch Bureau of Engineering Valley District Phone:

Fees Collected	Yes	SCAR FEE (W:37 / QC:705)	$1,996.50
Date Collected	08/14/2019	SCAR Status:	**Completed**

Scar Request Number: 3080

City of Los Angeles
Bureau of Engineering

SEWER CAPACITY AVAILABILITY REVIEW FEE (SCARF) - Frequently Asked Questions

SCAR stands for Sewer Capacity Availability Review that is performed by the Department of Public Works, Bureau of Sanitation. This review evaluates the existing sewer system to determine if there is adequate capacity to safely convey sewage from proposed development projects, proposed construction projects, proposed groundwater dewatering projects and proposed increases of sewage from existing facilities. The SCAR Fee (SCARF) recovers the cost, incurred by the City, in performing the review for any SCAR request that is expected to generate 10,000 gallons per day (gpd) of sewage.

The SCARF is based on the effort required to perform data collection and engineering analysis in completing a SCAR. A brief summary of that effort includes, but is not limited to, the following:

1. Research and trace sewer flow levels upstream and downstream of the point of connection.
2. Conduct field surveys to observe and record flow levels. Coordinate with maintenance staff to inspect sewer maintenance holes and conduct smoke and dye testing if necessary.
3. Review recent gauging data and in some cases closed circuit TV inspection (CCTV) videos.
4. Perform gauging and CCTV inspection if recent data is not available.
5. Research the project location area for other recently approved SCARs to evaluate the cumulated impact of all known SCARs on the sewer system.
6. Calculate the impact of the proposed additional sewage discharge on the existing sewer system as it will be impacted from the approved SCARs from Item 6 above. This includes tracing the cumulative impacts of all known SCARs, along with the subject SCAR, downstream to insure sufficient capacity exist throughout the system.
7. Correspond with the applicant for additional information and project and clarification as necessary.
8. Work with the applicant to find alternative sewer connection points and solutions if sufficient capacity does not exist at the desired point of connection.

Questions and Answers:

1. **When is the SCARF applied, or charged?**
   It applies to all applicants seeking a Sewer Capacity Availability Review (SCAR). SCARs are generally required for Sewer Facility Certificate applications exceeding 10,000 gpd, or request from a property owner seeking to increase their discharge thru their existing connection by 10,000 gpd or more, or any groundwater related project that discharges 10,000 gpd or more, or any proposed or future development for a project that could result in a discharge of 10,000 gpd.
2. **Why is the SCARF being charged now when it has not been in the past?**
   The City has seen a dramatic increase in the number of SCARs over 10,000 gpd in the last few years and has needed to increase its resources, i.e., staff and gauging efforts, to respond to them. The funds collected thru SCARF will help the City pay for these additional resources and will be paid by developers and property owners that receive the benefit from the SCAR effort.
3. **Where does the SCARF get paid?**
   The Department of Public Works, Bureau of Engineering (BOE) collects the fee at its public counters. Once the fee is paid then BOE prepares a SCAR request and forwards it to the BOS where it is reviewed and then returned to BOE. BOE then informs the applicant of the result. In some cases, BOS works directly with the applicant during the review of the SCAR to seek additional information and work out alternative solutions

Scar Request Number: 3080

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **75066**

Fire Service Pressure Flow Report

SERVICE NUMBER **630431**

For: **7940 LANKERSHIM BLVD** Approved Date: **3-11-2019**

Proposed Service **6 INCH** off of the

12 inch main in **LANKERSHIM BL** on the **EAST** side approximately

200 feet **SOUTH** of **CENTERLINE** of **STRATHERN ST** The System maximum pressure is

160 psi based on street curb elevation of **807** feet above sea level at this location.

The distance from the DWP street main to the property line is **69** feet

System maximum pressure should be used only for determining class of piping and fittings.

Residual Flow/Pressure Table for water system street main at this location

Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)	Flow (gpm)	Press. (psi)
0	61				
965	60				
1400	59				

Meter Assembly Capacities

Domestic Meters	
1 inch =	56 gpm
1-1/2 inch =	96 gpm
2 inch =	160 gpm
3 inch =	220 gpm
4 inch =	400 gpm
6 inch =	700 gpm
8 inch =	1500 gpm
10 inch =	2500 gpm

Fire Service	
2 inch =	250 gpm
4 inch =	600 gpm
6 inch =	1400 gpm
8 inch =	2500 gpm
10 inch =	5000 gpm

FM Services	
8 inch =	2500 gpm
10 inch =	5000 gpm

These values are subject to change due to changes in system facilities or demands.

Notes: INCLUDES 4" DOMESTIC DEMAND OF 400GPM. SAR IS APPROVED FOR COMBO SERVICE.

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 03-11-19. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **EAST VALLEY (213) 367-1242**

DARLINE TRUONG	**MARTIN LAM**	**190-168**
Prepared by	**Approved by**	**Water Service Map**

Appendix H
Noise Technical Report

7940 LANKERSHIM BOULEVARD MIXED-USE PROJECT
DRAFT NOISE TECHNICAL REPORT

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September 2019

ICF. 2019. *7940 Lankershim Boulevard Mixed-Use Project Draft Noise Technical Report*. August (ICF 00047.19) Los Angeles, CA. Prepared for City of Los Angeles Department of City Planning, Los Angeles, CA.

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Acronyms and Abbreviations

µPa	microPascal
ADT	average daily traffic
AIA	Airport Influence Area
Caltrans	California Department of Transportation
City	City of Los Angeles
CNEL	Community Noise Equivalent Level
dB	decibel
dBA	A-weighted decibel
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	heating, ventilation, and air conditioning
Hz	Hertz
in/s	inches per second
kHz	kilohertz
LAMC	City of Los Angeles Municipal Code
L_{dn}	day-night sound level
L_{eq}	equivalent sound level
L_{max}	maximum sound level
L_{min}	minimum sound level
LT	long-term
L_V	vibration velocity level
L_{xx}	percentile-exceeded sound level
OSHA	Occupational Safety and Health Administration
PDF	project design feature
PPV	peak particle velocity
Project	7940 Lankershim Boulevard Mixed-Use Project
rms	root-mean-square
SLM	sound level meter
SPL	sound pressure level
ST	short-term
TIS	Transportation Impact Study

Chapter 1
Introduction

The purpose of this Noise Technical Report is to analyze potential noise or vibration impacts that would result from the proposed 7940 Lankershim Boulevard Mixed-Use Project (Project) in the Sun Valley-La Tuna Canyon Community Plan area within the City of Los Angeles (City). The analysis provided in this report evaluates the potential for short- and long-term noise and vibration impacts associated with the construction and operation of the Project. The analysis includes a description of the environmental setting for the Project, including existing noise conditions, as well as applicable laws and regulations. It also documents the assumptions, methodologies, and findings used to evaluate the impacts. Further, this report discusses the Project's contribution to potential cumulative noise impacts, and details project design features implemented as part of the Project.

1.1 Project Description

The approximately 4.69-acre Project Site is an irregularly shaped group of parcels bordered by North Lankershim Boulevard to the west and West Strathern Street to the north. The Project Site currently contains a one-story commercial building, a one-story office building, and associated surface parking and storage areas. The Project would demolish the existing on-site structures prior to new construction.

The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of commercial uses. The Project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet and a Floor Area Ratio of 3.32:1. The residential component would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for either Extremely Low Income households or Very Low Income households. Five percent of the proposed residential units (22 dwelling units) would be designated as restricted affordable housing for Extremely Low Income households, and 6 percent of the proposed residential units (26 dwelling units) would be designated as restricted affordable housing for Very Low Income households.

Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in a parking structure located within one subterranean level and one at-grade level. All parking would be fully enclosed and screened from public view. The Project would provide 224 bicycle spaces in the parking structure (30 short-term bicycle spaces and 194 long-term bicycle spaces).

Open space areas and amenities for residents would include a central courtyard that would be landscaped and open to the sky. Other amenities would include a community room, recreational room, swimming pool and spa area, multi-use sport court, pet park, and private balconies.

The Project would be designed to meet the California Green Building Standards and Title 24 Building Standards Code. The Project would emphasize energy and water conservation, which would be achieved through the use of energy-efficient heating, ventilation, and air conditioning (HVAC) and lighting systems, Energy Star appliances, and low-flow plumbing fixtures. The Project

would be prewired for electrical vehicle charging at 20 percent of its parking capacity for future use, of which 5 percent would be installed with chargers for immediate use by electrical vehicles, and rooftop solar uses in accordance with the California Green Building Standards. The Project would also include solar panels on 15 percent of the rooftop space.

Chapter 2
Noise Fundamentals

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is unwanted, disturbing, or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

The following sections provide an explanation of key concepts and acoustical terms used in the analysis of environmental and community noise.

2.1 Frequency, Amplitude, and Decibels

Continuous sound can be described by its *frequency* (pitch) and *amplitude* (loudness). A low-frequency sound is perceived as low in pitch; a high-frequency sound is perceived as high-pitched. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source correlates with the loudness of that source. The amplitude of a sound is typically described in terms of *sound pressure level* (SPL), also referred to simply as the sound level. The SPL refers to the root-mean-square (rms)[1] pressure of a sound wave and is measured in units called microPascals (μPa). One μPa is approximately one hundred-billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to over 100,000,000 μPa. Because of this large range of values, sound is rarely expressed in terms of μPa. Instead, a logarithmic scale is used to describe the SPL in terms of decibels, abbreviated dB. The decibel is a logarithmic unit that describes the ratio of the actual sound pressure to a reference pressure (20 μPa is the standard reference pressure level for acoustical measurements in air). Specifically, an SPL, in decibels, is calculated as follows:

$$SPL = 20 \times \log_{10}\left(\frac{X}{20\mu Pa}\right)$$

where X is the actual sound pressure and 20 μPa is the reference pressure. The threshold of hearing for young people is about 0 dB, which corresponds to 20 μPa.

[1] Root-mean-square (rms) is defined as the square root of the mean (average) value of the squared amplitude of the noise signal.

2.1.1 Decibel Calculations

Because decibels represent noise levels using a logarithmic scale, SPLs cannot be added, subtracted, or averaged through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one bulldozer produces an SPL of 80 dB, two bulldozers would not produce a combined sound level of 160 dB. Rather, they would combine to produce 83 dB. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition. The same decibel addition is used for A-weighted decibels described below.

Similarly, the arithmetic mean (average) of a series of noise levels does not accurately represent the overall average noise level. Instead, the values must be averaged using a linear scale before converting the result back into a logarithmic (dB) noise level. This method is typically referred to as calculating the "energy average" of the noise levels.

2.1.2 A-Weighting

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude at higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted (i.e., adjusted), depending on human sensitivity to those frequencies. The resulting SPL is expressed in A-weighted decibels, or dBA.

The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Table 2-1 describes typical A-weighted sound levels for various noise sources.

Table 2-1. Typical A-Weighted Sound Levels

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

2.2 Noise Descriptors

Because sound levels can vary markedly over a short period of time, various descriptors or noise "metrics" have been developed to quantify environmental and community noise. These metrics generally describe either the average character of the noise or the statistical behavior of the variations in the noise level. Some of the most common metrics used to describe environmental noise, including those metrics used in this report, are described below.

- **Equivalent Sound Level (L_{eq})** is the most common metric used to describe short-term average noise levels. Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off, or construction work, which can vary sporadically. The L_{eq} describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustical energy over the duration of the exposure. For many noise sources, the L_{eq} will vary, depending on the time of day. A prime example is traffic noise, which rises and falls, depending on the amount of traffic on a given street or freeway.

- **Maximum Sound Level (L_{max})** and **Minimum Sound Level (L_{min})** refer to the maximum and minimum sound levels, respectively, that occur during the noise measurement period. More specifically, they describe the rms sound levels that correspond to the loudest and quietest 1-second intervals that occur during the measurement.[2]
- **Percentile-Exceeded Sound Level (L_{xx})** describes the sound level exceeded for a given percentage of a specified period. For example, the L_{50} is the sound level exceeded 50 percent of the time (such as 30 minutes per hour), and L_{25} is the sound level exceeded 25 percent of the time (such as 15 minutes per hour).
- **Community Noise Equivalent Level (CNEL)** is a measure of the 24-hour average A-weighted noise level that is also time-weighted to "penalize" noise that occurs during the evening and nighttime hours when noise is generally recognized to be more disturbing (because people are trying to rest, relax, and sleep during these times). In order to account for this in calculating the CNEL, 5 dBA is added to the L_{eq} during the evening hours of 7 p.m. to 10 p.m.; 10 dBA is added to the L_{eq} during the nighttime hours of 10 p.m. to 7 a.m.; and the energy average is then taken for the whole 24-hour day.
- **Day-Night Sound Level (L_{dn})** is similar to the CNEL described above. L_{dn} is also a time-weighted average of the 24-hour A-weighted noise level. The only difference is that no "penalty" is applied to the evening hours of 7 p.m. to 10 p.m. 10 dBA is added to the L_{eq} during the nighttime hours of 10 p.m. to 7 a.m., and the energy average is then taken for the whole 24-hour day.

It is noted that various federal, state, and local agencies have adopted CNEL or L_{dn} as the measure of community noise. While not identical, CNEL and L_{dn} are normally within 1 dBA of each other when measured in typical community environments, and many noise standards/regulations use the two interchangeably.

2.3 Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors.

- **Geometric Spreading**. Sound from a single source (i.e., a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of approximately 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a "line" source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level (i.e., attenuation or decrease) from a line source is approximately 3 dBA doubling of distance.
- **Ground Absorption**. Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been

[2] 1-second intervals correspond to a "slow" time weighting on a sound level meter. For a sound level meter set to a "fast" time weighting, the corresponding interval is 1/8-second.

expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of fewer than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically "hard" sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. For acoustically absorptive or "soft" sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

- **Atmospheric Effects**. Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, may also have a major effect on sound. Receptors downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas receptors upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface) as the warmer air at the higher elevation acts as a cap and causes a reflection of sound that is generated below at the ground level.
- **Shielding by Natural or Human-Made Features**. A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

2.4 Human Response to Noise

Noise can have a range of effects on people including hearing damage, sleep interference, speech interference, performance interference, physiological responses, and annoyance. Each of these is briefly described below:

- **Hearing Damage.** A person exposed to high noise levels can suffer hearing damage, either gradual or traumatic. Gradual hearing loss occurs with repeated exposure to excessive noise levels and is most commonly associated with occupational noise exposures in heavy industry or other very noisy work environments. Traumatic hearing loss is caused by sudden exposure to an extremely high noise level, such as a gunshot or explosion at very close range. The potential for noise-induced hearing loss is not generally a concern in typical community noise environments. Noise levels in neighborhoods, and even in very noisy airport environments, are not sufficiently loud as to cause hearing loss.

- **Sleep Interference.** Exposure to excessive noise levels at night has been shown to cause sleep disturbance. Sleep disturbance refers not only to awakening from sleep, but also to effects on the quality of sleep, such as altering the pattern and stages of sleep. Interior noise levels between 50 and 55 dBA L_{max} during nighttime hours (10 p.m. to 7 a.m.) were found to result in sleep disturbance and annoyance (Nelson 1987).

- **Speech Interference.** Speech interference can be a problem in any situation where clear communication is desired, but is often of particular concern in learning environments (such as schools) or situations where poor communication could jeopardize safety. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech. As background noise levels rise, the intelligibility of speech decreases and the listener will fail to recognize an increasing percentage of the words spoken. A speaker may raise his or her voice in an attempt to compensate for higher background noise levels, but this in turn can lead to vocal fatigue for the speaker.

- **Performance Interference.** Excessive noise has been found to have various detrimental effects on human performance, including information processing, concentration, accuracy, reaction times, and academic performance. Intrusive noise from individual events can also cause distraction. These effects are of obvious concern for learning and work environments.

- **Physiological Responses.** Noise has been shown to cause measureable physiological responses in humans, including changes in stress hormone levels, pulse rate, and blood pressure. The extent to which these responses cause harm or are signs of harm is not clearly defined, but they could contribute to stress-related diseases, such as hypertension, anxiety, and heart disease.

- **Annoyance.** The subjective effects of annoyance, nuisance, and dissatisfaction are possibly the most difficult to quantify, and no completely satisfactory method exists to measure these effects. This difficulty arises primarily from differences in individual sensitivity and habituation to sound, which can vary widely from person to person. What one person considers tolerable can be unbearable to another of equal hearing acuity. An important tool in estimating the likelihood of annoyance due to a new sound is by comparing it to the existing baseline or "ambient" environment to which that person has adapted. In general, the more the level or tonal (frequency) variations of a sound exceed the previously existing ambient sound level or tonal quality, the less acceptable the new sound will be.

In most cases, effects from sounds typically found in the natural environment would be limited to annoyance or interference. Physiological effects and hearing loss would be more commonly associated with human-made noise, such as in an industrial or occupational setting.

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA. However, it is widely accepted that a doubling of sound energy, which results in a change of 3 dBA in a normal environment, is considered to be barely perceptible to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) resulting in a 3 dBA increase in sound would generally be barely detectable.

2.5 Noise-Sensitive Land Uses

Noise-sensitive land uses are the locations most likely to be adversely affected by excessive noise levels, as well as places where quiet is an essential element of their intended purpose. As defined in the Noise Element of the City of Los Angeles General Plan, land uses that are sensitive to noise include single- and multi-family dwellings, long-term care facilities (including convalescent and retirement facilities), dormitories, motels, hotels, transient lodgings, and other residential uses; houses of worship; hospitals; libraries; schools; auditoriums; concert halls; outdoor theaters; nature and wildlife preserves; and parks (City of Los Angeles 1999).

Chapter 3
Groundborne Vibration Fundamentals

This chapter describes basic concepts related to groundborne vibration. Groundborne vibration is a small, rapidly fluctuating motion transmitted through the ground. The effects of groundborne vibrations are typically limited to causing nuisance or annoyance to people, but at extreme vibration levels, damage to buildings may also occur.

In contrast to airborne sound, groundborne vibration is not a phenomenon that most people experience every day. The ambient groundborne vibration level in residential areas is usually much lower than the threshold of human perception. Most perceptible indoor vibration is caused by sources within buildings, such as mechanical equipment while in operation, people moving, or doors slamming. Typical outdoor sources of perceptible groundborne vibration are heavy construction activity (such as blasting, pile driving, or earthmoving), steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible, even in locations close to major roads. The strength of groundborne vibration from typical environmental sources diminishes (or attenuates) fairly rapidly over distance.

For the prediction of groundborne vibration, the fundamental model consists of a vibration source, a receptor, and the propagation path between the two. The power of the vibration source and the characteristics and geology of the intervening ground, which affect the propagation path to the receptor, determine the groundborne vibration level and the characteristics of the vibration perceived by the receptor.

The following sections provide an explanation of key concepts and terms used in the analysis of environmental groundborne vibration.

3.1 Displacement, Velocity, and Acceleration

When a vibration source (blasting, dynamic construction equipment, train, etc.) impacts the ground it imparts energy to the ground, creating vibration waves that propagate away from the source along the surface and downward into the earth. As vibration waves travel outward from a source, they excite the particles of rock and soil through which they pass and cause them to oscillate. The distance that these particles move is referred to as the *displacement* and is typically very small, usually only a few ten-thousandths to a few thousandths of an inch. *Velocity* describes the instantaneous speed of the motion, and *acceleration* is the instantaneous rate of change of the speed. Each of these measures can be further described in terms of *frequency* and *amplitude*, as discussed below.

Although displacement is generally easier to understand than velocity or acceleration, it is rarely used to describe groundborne vibration because most transducers used to measure vibration directly measure velocity or acceleration, not displacement.

3.2 Frequency and Amplitude

The frequency of a vibrating object describes how rapidly it is oscillating. The unit of measurement for the frequency of vibration is Hz (the same as used in the measurement of noise), which describes the number of cycles per second.

The amplitude of displacement describes the distance that a particle moves from its resting (or equilibrium) position as it oscillates and can be measured in inches. The amplitude of vibration velocity (the speed of the movement) can be measured in inches per second (in/s). The amplitude of vibration acceleration (the rate of change of the speed) can be measured in inches per second per second.

3.3 Vibration Descriptors

As noted above, there are various ways to quantify groundborne vibration based on its fundamental characteristics. Because vibration can vary markedly over a short period of time, various descriptors have been developed to quantify vibration. The two most common descriptors used in the analysis of groundborne vibration are peak particle velocity and vibration velocity level, each of which are described below:

- **Peak Particle Velocity (PPV)** is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is in/s. Unlike many quantities used in the study of environmental acoustics, PPV is typically presented using linear values and does not employ a dB scale. Because it is related to the stresses that are experienced by buildings, PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage (both Federal Transit Administration [FTA] and Caltrans guidelines recommend using PPV for this purpose). It is also used in many instances to evaluate the human response to groundborne vibration (Caltrans guidelines recommend using PPV for this purpose).
- **Vibration Velocity Level (L_V)** describes the rms vibration velocity. Due to the typically small amplitudes of groundborne vibrations, vibration velocity is often expressed in decibels, calculated as follows.

$$L_V = 20 \times \log_{10}\left(\frac{V}{V_{ref}}\right)$$

where V is the actual rms velocity amplitude and V_{ref} is the reference velocity amplitude. It is important to note that there is no universally accepted value for V_{ref}, but the accepted reference quantity for vibration velocity in the U.S. is 1 micro-inch per second (1×10^{-6} inches/second). The abbreviation VdB is commonly used for vibration decibels to distinguish from noise level decibels. L_V is often used to evaluate human response to vibration levels (FTA guidelines recommend using L_V for this purpose).

3.4 Vibration Propagation

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations reduce much more rapidly than low frequencies so that low frequencies tend to dominate the spectrum at large distances from the source. The propagation of groundborne vibration is not as simple to model as airborne noise. This is because noise in the air travels through a relatively uniform medium, while groundborne vibrations travel through the earth, which may contain significant geological differences. Geological factors that influence the propagation of groundborne vibration include the following:

- **Soil conditions.** The type of soil is known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil. Hard, dense, and compacted soil, stiff clay soil, and hard rock transmit vibration more efficiently than loose, soft soils, sand, or gravel.
- **Depth to bedrock.** Shallow depth to bedrock has been linked to efficient propagation of groundborne vibration. One possibility is that shallow bedrock acts to concentrate the vibration energy near the surface, reflecting vibration waves back toward the surface that would otherwise continue to propagate farther down into the earth.
- **Soil strata.** Discontinuities in the soil strata (i.e., soil layering) can also cause diffractions or channeling effects that affect the propagation of vibration over long distances.
- **Frost conditions.** Vibration waves typically propagate more efficiently in frozen soils than in unfrozen soils. Propagation also varies depending on the depth of the frost.
- **Water conditions.** The amount of water in the soil can affect vibration propagation. The depth of the water table in the path of the propagation also appears to have substantial effects on groundborne vibration levels.

Specific conditions at the source and receptor locations can also affect the vibration levels. For instance, how the source is connected to the ground (e.g., direct contact, through rails, or via a structure) will affect the amount of energy transmitted into the ground. There are also notable differences when the source is underground (such as in a tunnel) versus on the surface. At the receptor, vibration levels can be affected by variables such as the foundation type, the building construction, and the acoustical absorption inside the rooms where people are located. When vibration encounters a building, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under certain circumstances, the ground-to-foundation coupling may also amplify the vibration level due to structural resonances of the floors and walls.

3.5 Effects of Groundborne Vibration

Vibration can result in effects that range from annoyance to structural damage. Annoyance or disturbance of people may occur at vibration levels substantially below those that would pose a risk of damage to buildings. Each of these effects is discussed below.

3.5.1 Potential Building Damage

When groundborne vibration encounters a building, vibrational energy is transmitted to the structure, causing it to vibrate. If the vibration levels are high enough, damage to the building may occur. Depending on the type of building and the vibration levels, this damage could range from cosmetic architectural damage (e.g., cracked plaster, stucco, or tile) to more severe structural damage (e.g., cracking of floor slabs, foundations, columns, beams, or wells). Buildings can typically withstand higher levels of vibration from transient sources than from continuous or frequent intermittent sources. Transient sources are those that create a single, isolated vibration event, such as blasting or drop balls. Continuous or frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Older, fragile buildings (which may include important historical buildings) are of particular concern. Modern commercial and industrial buildings can generally withstand much higher vibration levels before potential damage becomes a problem.

3.5.2 Human Disturbance or Annoyance

Groundborne vibration can be annoying to people and can cause serious concern for nearby neighbors of vibration sources, even when vibration is well below levels that could cause physical damage to structures. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible but there is less adverse reaction without the effects associated with the shaking of a building. The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz.

When groundborne vibration waves encounter a building, vibrational energy is transmitted to the building foundation and then propagates throughout the remainder of the structure, causing building surfaces (walls, floors, and ceilings) to vibrate. This movement may be felt directly by building occupants and may also generate a low-frequency rumbling noise as sound waves are radiated by the vibrating surfaces. At higher frequencies, building vibration can cause other audible effects, such as the rattling of windows, building fixtures, or items on shelves or hanging on walls. These audible effects due to groundborne vibration are referred to as groundborne noise. Groundborne vibration levels that result in groundborne noise are often experienced as a combination of perceptible vibration and low-frequency noise. However, sources that have the potential to generate groundborne noise are likely to produce airborne noise impacts that mask the radiated groundborne noise. Any perceptible effect (vibration or groundborne noise) can lead to annoyance. The degree to which a person is annoyed depends on the activity in which they are participating at the time of the disturbance. For example, someone sleeping or reading will be more sensitive than someone who is engaged in any type of physical activity. Reoccurring vibration effects often lead people to believe that the vibration is damaging their home, even though vibration levels are well below minimum thresholds for damage potential (Caltrans 2013).

Numerous studies have been conducted to characterize the human response to vibration, and, over the years, numerous vibration criteria and standards have been suggested by researchers, organizations, and governmental agencies. These studies suggest that the thresholds for perception and annoyance vary according to duration, frequency, and amplitude of vibration. For transient vibration sources (single, isolated vibration events such as blasting), the human response to

vibration varies from barely perceptible at a PPV of 0.04 in/s, to distinctly perceptible at a PPV of 0.25 in/s, and severe at a PPV of 2.0 in/s. For continuous or frequent intermittent vibration sources (such as impact pile driving or vibratory compaction equipment), the human response to vibration varies from barely perceptible at a PPV of 0.01 in/s, to distinctly perceptible at a PPV of 0.04 in/s, and severe at a PPV of 0.4 in/s (Caltrans 2013).

3.6 Vibration-Sensitive Land Uses

As noted above, the potential effects of groundborne vibration can be divided into two categories: building damage and potential human annoyance. Because building damage would be considered a permanent negative effect at any building, regardless of land use, any type of building would typically be considered sensitive to this type of impact. Fragile structures, which often include historical buildings, are most susceptible to damage and are of particular concern.

Human annoyance effects from groundborne vibration are typically only considered inside occupied buildings and not at outside areas such as residential yards, parks, or open space. Buildings that would be considered sensitive to human annoyance caused by vibration are generally the same as those that would be sensitive to noise and would typically include residences, schools, hospitals, assisted living facilities, mental care facilities, places of worship, libraries, performing arts facilities, and hotels and motels.

Chapter 4
Existing Noise Environment

The Project Site is located in an urbanized area surrounded by a mix of land uses, including commercial, residential, industrial, office, and school uses. Immediately northwest of the Project Site, at the southeast corner of North Lankershim Boulevard and West Strathern Street, is a fast food restaurant (Burger King), beyond which are various automotive, restaurant, and retail uses along North Lankershim Boulevard and Webb Avenue. Single-family residential uses are located to the north, across West Strathern Street, and immediately adjacent to the eastern and southern boundaries of the Project Site. An automotive repair shop (Schiro's Collision Repairs) also borders the Project Site to the south and is located at the northeast corner of North Lankershim Boulevard and West Arminta Street. Land uses along North Lankershim Boulevard to the southwest of the Project Site include office, motel, commercial, and automotive uses. To the west, across North Lankershim Boulevard, are automotive and commercial uses, beyond which are single-family residential uses. The Arminta Street Elementary School and the Arminta Street Early Education Center are approximately 715 feet east of the Project Site, along Beck Avenue between West Strathern Street and West Arminta Street.

The existing noise environment in the Project vicinity is dominated by traffic noise on local streets, with the loudest noise levels generated along North Lankershim Boulevard. Other secondary noise sources observed near the Project Site include vehicles at the fast food restaurant, power tools used at the automotive repair businesses, aircraft overflights, children playing outdoors from afar at the Arminta Street Elementary School, residential-generated noise (e.g., dogs barking, vehicle operation), and natural background noise (e.g., birds and rustling leaves). In order to document existing noise levels in the study area, a total of seven noise measurements were obtained in the Project vicinity. Five short-term (ST) measurements were obtained in the surrounding area on Wednesday, April 24, 2019, and Friday, April 26, 2019. In addition, two long-term (LT) noise measurements were conducted within the Project Site along the Project boundary adjacent to existing off-site residential dwellings. The noise-monitoring locations were selected to document the existing noise levels at the Project Site and at various neighboring noise-sensitive receptor locations.

Each of the ST measurements was conducted over a period of at least 20 minutes, while the LT measurements were conducted over a 24-hour period from midnight to midnight. All measurement locations are indicated on Figure 4-1.

The instrumentation used to obtain the ST noise measurements consisted of a Type 1 Larson Davis (Model 831) integrating sound level meter (SLM). The instrumentation used to obtain the LT noise measurements consisted of Type 2 Piccolo (Model SLM-P3) SLMs. Both the Type 1 and Type 2 SLMs were field-calibrated prior to each measurement to ensure accuracy, using a Larson Davis CAL200 acoustical calibrator; the calibration was also re-checked at the conclusion of each measurement. The instruments are maintained to manufacturer specifications to ensure accuracy, in accordance with American National Standards Institute standard S1.4-2006. For all measurements, the SLM microphone was mounted at a height of 5 feet above the ground. The noise measurement results are summarized in Table 4-1. Field noise survey sheets are included in Appendix A of this report. Noise measurements indicate that the daytime ambient noise levels generally ranged between approximately 48 and 70 dBA L_{eq} in the Project area. The LT noise measurements indicate that the

average daily noise levels ranged between approximately 53 dBA CNEL in the southeastern portion of the Project Site south of Blythe Street (LT2) and 61 dBA CNEL in the northeastern portion of the Project Site between Strathern Street and Blythe Street (LT1). The higher average daily noise level at the northeastern portion of the Project Site is mainly due to its proximity to Strathern Street, which experiences higher daily vehicular traffic than Blythe Street.

Table 4-1. Measured Existing Noise Levels in Project Area

			Noise Levels (dBA)			
Location Number: Description	**Date**	**Time[a]**	**L_{eq}**	**L_{max}**	**L_{min}**	**CNEL**
LT1: Eastern property line of Project Site, south of Strathern Street, adjacent to single-family residence.	4/25/2019 to 4/26/2019	Daytime	55.8[b]	57.3[b]	54.0[b]	60.5
		Nighttime	53.1[c]	57.3[c]	48.1[c]	
LT2: Eastern property line of Project Site, south of Blythe Street, adjacent to single-family residence.	4/25/2019 to 4/26/2019	Daytime	48.2[b]	52.1[b]	44.1[b]	52.7
		Nighttime	45.2[c]	49.7[c]	42.0[c]	
ST1: In front of single-family residence, 11669 Strathern Street, north of the Project Site.	4/24/2019	10:23 a.m. to 10:43 a.m.	67.9	79.3	49.7	NM
ST2: Adjacent to single-family residence, 11713 Blyth Street, west of the Project Site.	4/24/2019	10:59 a.m. to 11:19 a.m.	58.5	77.6	46.8	NM
ST3: Adjacent to Arminta Elementary School property line along Beck Avenue, east of the Project Site.	4/26/2019	10:38 a.m. to 10:58 a.m.	55.2	67.0	48.0	NM
ST4: Northern property line of single-family residence, 7858 Troost Avenue, south of the Project Site.	4/26/2019	9:58 a.m. to 10:18 a.m.	52.2	46.1	65.4	NM
ST5: Adjacent to Village Inn Motel, 7833 Lankershim Boulevard, southwest of the Project Site.	4/24/2019	11:29 a.m. to 11:49 a.m.	70.1	48.5	80.7	NM

Note: NM = Not measured
[a] Daytime = 7 a.m. to 10 p.m. Nighttime = 10 p.m. to 7 a.m.
[b] The value represents the noise level for the noise metric (i.e., L_{eq}, L_{max}, and L_{min}) across the daytime period (i.e., 7 a.m. to 10 p.m.).
[c] The value represents the noise level for the noise metric (i.e., L_{eq}, L_{max}, and L_{min}) across the nighttime period (i.e., 10 p.m. to 7 a.m.).



Figure 4-1
Noise Measurement Locations
7940 Lankershim Blvd. Project

Chapter 5
Regulatory Framework

5.1 Federal

There are no federal noise standards or regulations that directly regulate environmental noise related to the construction or operation of the proposed Project. There are also no federal vibration standards or regulations adopted by an agency that are applicable to evaluating vibration impacts from land use development projects such as the proposed Project. As such, noise impacts produced by the Project would be regulated or evaluated by State and City of Los Angeles standards designed to protect public well-being and health.

5.2 State

5.2.1 Noise

The state of California has not adopted statewide standards for environmental noise. However, the *State of California General Plan Guidelines,* published and updated by the Governor's Office of Planning and Research, provides guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These are guidelines for general land use planning that describe noise acceptability categories for different types of land uses considered by the state. The evaluation contained in the guidelines has been incorporated into the City of Los Angeles Guidelines for Noise Compatible Land Use provided in Table 5-3 below.

California also requires each local government entity to perform noise studies and implement a noise element as part of its general plan. The purpose of the noise element is to limit the exposure of the community to excessive noise levels; the noise element must be used to guide decisions concerning land use. A discussion of relevant noise-related policies in the Noise Element of the City of Los Angeles General Plan is provided in Section 5.3.1 below.

5.2.2 Vibration

California Department of Transportation

There are no state vibration standards that directly apply to the Project. As noted below, there are also no quantitative local standards that can be used to assess project-related vibration. Therefore, while the Project would not be subject to Caltrans oversight, guidance published by the agency nonetheless provides groundborne vibration criteria that are useful in establishing thresholds for significant impacts. Caltrans' widely referenced *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013) provides guidance for two types of potential vibration impacts: (1) damage to structures, and (2) annoyance to people. Guideline criteria for each are provided in Tables 5-1 and 5-2.

Table 5-1. Caltrans Guideline Vibration Damage Criteria

Structure and Condition	Maximum PPV (in/s)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2013.
Notes:
Transient sources create a single, isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 5-2. Caltrans Guideline Vibration Annoyance Criteria

Human Response	Maximum PPV (in/s)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2013.
Notes:
Transient sources create a single, isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

5.3 Local

5.3.1 Noise

Noise Element of the City of Los Angeles General Plan

The Noise Element of the General Plan serves to identify sources of noise and provide objectives and policies that ensure that noise from various sources does not create an unacceptable noise environment. Overall, the City's Noise Element describes the noise environment (including noise sources) in the City; addresses noise mitigation regulations, strategies, and programs; and delineates federal, state, and City jurisdiction relative to rail, automotive, aircraft, and nuisance noise. The goal, objectives, and policies of the Noise Element that are relevant to the Project are provided below.

Goal

A city where noise does not reduce the quality of urban life.

Objectives and Policies

Objective 2 (Non-airport): Reduce or eliminate non-airport related intrusive noise, especially relative to noise sensitive uses.

Policy 2.2: Enforce and/or implement applicable city, state and federal regulations intended to mitigate proposed noise producing activities, reduce intrusive noise and alleviate noise that is deemed a public nuisance.

Objective 3 (Land Use Development): Reduce or eliminate noise impacts associated with proposed development of land and changes in land use.

Policy 3.1: Develop land use policies and programs that will reduce or eliminate potential and existing noise impacts.

Implementation Programs

P11: For a proposed development project that is deemed to have a potentially significant noise impact on noise sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act and city procedures.

Examples of mitigation measures to consider:

a) increase the distance from the noise source and the receptor by providing land use buffers, e.g., parking lots, landscaped setbacks or open areas, utility yards, maintenance facilities, etc.;

b) orient structures, use berms or sound walls, utilize terrain or use other means to block or deflect noise, provided it is not deflected to other noise-sensitive uses and that the barrier does not create a hiding place for potential criminal activity;

c) require projects with noise generating components (e.g., auto repair and maintenance facilities) to have no openings in building walls that face sensitive uses;

d) limit the hours of operation of a noise generating use;

e) limit the use of the site to prohibit potential noise generating uses that otherwise are allowed by right within the zone classification of the project site;

f) require that potential noise impacts associated with project construction be minimized by such measures as designating haul routes, requiring less noisy equipment, enclosing or orienting noisy equipment (e.g., electrical generators) away from noise sensitive uses, imposing construction hours that are more restrictive than those set forth in the Los Angeles Municipal Code, requiring vehicle parking and deployment activities to be separated and buffered from sensitive uses; or

g) determine impacts on noise sensitive uses, such as public school classrooms, which are active primarily during the daytime and evening hours, by weighting the impact measurement to the potential interior noise level (or for exterior uses, e.g., outdoor theaters, to the exterior noise level) over the typical hours of use, instead of using a 24-hour measurement.

h) Other appropriate measures.

P12: When issuing discretionary permits for a proposed noise-sensitive use (as defined by this chapter) or a subdivision of four or more detached single-family units and which use is determined to be potentially significantly impacted by existing or proposed noise sources, require mitigation measures, as appropriate, in accordance with procedures set forth in the California Environmental Quality Act so as to achieve an interior noise level of a CNEL of 45 dB, or less, in any habitable room, as required by Los Angeles Municipal Code Section 91.

Examples of mitigation measures to consider:

a) Impose project orientation and buffering measures similar to those cited in the prior program;

b) orient the project so as to use structures, terrain or building design features (e.g., windowless walls or non-opening windows facing the noise source) so as to block or reduce noise impacts;

c) orient interior features of the project to reduce or eliminate noise impacts on particularly noise sensitive portions of the project (e.g., locate bedrooms and balconies away from the noise source);

d) require insulation and/or design measures, attested to by an acoustical expert, to the satisfaction of the city's Department of Building and Safety, to identify and mitigate potential noise impacts;

e) determine impacts on noise sensitive uses, such as public school classrooms, which are active primarily during the daytime and evening hours, by weighting the impact measurement to the potential interior noise level (or for exterior uses, e.g., outdoor theaters, to the exterior noise level) over the typical hours of use, instead of using a 24-hour measurement.

f) Other appropriate measures.

The Noise Element also provides land use/noise compatibility guidelines, as shown in Table 5-3. These are not strict standards, but rather are intended to help guide the determination of appropriate land use and mitigation measures relative to existing or anticipated ambient noise levels. These guidelines are most commonly applied to noise from mobile (transportation) noise sources, such as traffic, rail, and aircraft noise. Stationary noise sources are most commonly addressed using the municipal code standards described below.

Table 5-3. City of Los Angeles Guidelines for Noise Compatible Land Use

	Day-Night Average Exterior Sound Level (CNEL dB)						
Land Use Category	**50**	**55**	**60**	**65**	**70**	**75**	**80**
Residential Single-Family, Duplex, Mobile Home	A	C	C	C	N	U	U
Residential Multi-Family	A	A	C	C	N	U	U
Transient Lodging, Motel, Hotel	A	A	C	C	N	U	U
School, Library, Church, Hospital, Nursing Home	A	A	C	C	N	N	U
Auditorium, Concert Hall, Amphitheater	C	C	C	C/N	U	U	U
Sports Arena, Outdoor Spectator Sports	C	C	C	C	C/U	U	U

Land Use Category	Day-Night Average Exterior Sound Level (CNEL dB)						
	50	55	60	65	70	75	80
Playground, Neighborhood Park	A	A	A	A/N	N	N/U	U
Golf Course, Riding Stable, Water Recreation, Cemetery	A	A	A	A	N	A/N	U
Office Building, Business, Commercial, Professional	A	A	A	A/C	C	C/N	N
Agriculture, Industrial, Manufacturing, Utilities	A	A	A	A	A/C	C/N	N

Source: City of Los Angeles General Plan, Noise Element, 1999.
Notes:
A = Normally acceptable. Specified land use is satisfactory, based on the assumption that the buildings involved are conventional construction, without any special noise insulation.
C = Conditionally acceptable. New construction or development only after a detailed analysis of noise mitigation is made and needed noise insulation features are included in project design. Conventional construction; closed windows and fresh air supply systems or air-conditioning normally will suffice.
N = Normally unacceptable. New construction or development generally should be discouraged. A detailed analysis of noise reduction requirements must be made and noise insulation features included in the design of a project.
U = Clearly unacceptable. New construction or development generally should not be undertaken.

City of Los Angeles Municipal Code

Construction Noise

Section 41.40(a) of the City of Los Angeles Municipal Code (LAMC) prohibits the use, operation, repair, or servicing of construction equipment, as well as job-site delivery of construction materials, between the hours of 9:00 p.m. and 7:00 a.m. where such activities would disturb "persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence." Construction noise emanating from property zoned for manufacturing or industrial uses is exempted from the Section 41.40(a) standards. In addition, Section 41.40(c) prohibits construction, grading, and related job-site deliveries on or within 500 feet of land developed with residential structures before 8:00 a.m. or after 6:00 p.m. on any Saturday or national holiday or at any time on Sunday.

Section 112.05 of the LAMC places a noise level limit of 75 dBA at a distance of 50 feet for powered equipment or tools, which includes construction equipment in, or within 500 feet of, any residential zone between the hours of 7 a.m. and 10 p.m. Under the code, the limit shall not apply where compliance is technically infeasible. Technical infeasibility means that the noise limit cannot be achieved despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during operation of the equipment. Section 111.02 of the LAMC provides guidance on conducting sound level measurements pursuant to City noise regulations. The guidance from this section states, in part:

> "…the level of a particular noise being measured shall be the numerical average of noise measurements taken at a given location during a given time period."

The LAMC does not state a specific averaging time to be used for a noise measurement conducted pursuant to City noise regulations. However, as indicated in Section 111.02(b) of the LAMC in regard to sound level measurement procedure and criteria, the City references a period of "60 consecutive minutes" as a criterion in assessing an alleged offensive noise. Therefore, for the purpose of assessing construction activities, the L_{eq} for a 1-hour period is appropriate to assess Project impacts.

Operational Noise

Chapter XI, Noise Regulation (Noise Ordinance), of the LAMC regulates noise from non-transportation noise sources such as commercial or industrial operations, mechanical equipment, or residential activities. Although these regulations do not apply to vehicles operating on public rights-of-way, it is noted that they do apply to noise generated by vehicles on private property, such as in parking lots or parking structures. The exact noise standards vary, depending on the type of noise source; however, the allowable noise levels are generally determined relative to the existing ambient noise levels at the affected location. Section 111.01(a) defines ambient noise as "the composite of noise from all sources near and far in a given environment, exclusive of occasional and transient intrusive noise sources and the particular noise source or sources to be measured. Ambient noise shall be averaged over a period of at least 15 minutes." Section 111.03 provides minimum ambient noise levels for various land uses, as described in Table 5-4 below. In the event that the actual measured ambient noise level at a subject location is lower than that provided in the table, the level in the table shall be assumed.

Table 5-4. City of Los Angeles Assumed Minimum Ambient Noise Levels

Zone	Assumed Minimum Ambient Noise (L_{eq}), dBA[a,b]	
	Daytime (7 a.m. – 10 p.m.)	Nighttime (10 p.m. – 7 a.m.)
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

Source: Los Angeles Municipal Code, Section 111.03.

[a] At the boundary line between two zones, the allowable noise level of the quieter zone shall be used.

[b] The allowable noise levels listed in this table are adjusted when the following conditions apply to the alleged offensive noise:

For steady-tone noise with an audible fundamental frequency or overtones (except for noise emanating from any electrical transformer or gas-metering and pressure-control equipment existing and installed prior to September 8, 1986), reduce the allowable noise level by 5 dBA.

For repeated impulsive noise, reduce the allowable noise level by 5 dBA.

For noise occurring fewer than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m., increase the allowable noise level by 5 dBA.

As discussed previously, the LAMC is not explicit with respect to defining the length of time over which an average noise level should be assessed. However, based on the noted reference to "60 consecutive minutes" in Table 5-4 above, the LAMC indicates that the 1-hour L_{eq} metric should be used.

Section 112.01 of the Noise Ordinance addresses noise from radios, television sets, and similar devices that are used for the producing, reproducing, or amplification of the human voice, music, or any other sound. This section states that any noise level caused by these devices that is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof, would be a noise violation. Additionally, these devices may not generate noise that exceeds the ambient noise level at any adjacent property by more than 5 dBA.

Section 112.02 of the Noise Ordinance addresses noise from air-conditioning, refrigeration, heating, pumping, and filtering equipment. This section states that such equipment may not generate noise that would exceed the ambient noise level at any adjacent property by more than 5 dBA.

Section 112.04 of the Noise Ordinance addresses noise from powered equipment intended for repetitive use in residential areas (e.g., lawn mower, backpack blower, lawn edger, riding tractor) and other machinery, equipment, and devices. This section states that the operation of said equipment between the hours of 10:00 p.m. and. 7:00 a.m. within any residential zone or within 500 feet of a residence is prohibited. Additionally, noise levels associated with the operation of this type of equipment may not generate noise that would exceed the ambient noise level at any adjacent property by more than 5 dBA.

Section 114.02 of the Noise Ordinance addresses noise from motor-driven vehicles. (It is noted that the code applies to vehicles on private property only, and does not apply to vehicles operated within public rights-of-way.) This section states that such vehicles may not generate noise that would exceed the ambient noise level at any occupied residential property by more than 5 dBA.

Section 114.03 of the Noise Ordinance addresses noise from vehicle loading and unloading. This section prohibits the loading or unloading of any vehicle, or operation of any dollies, carts, forklifts, or other wheeled equipment, between the hours of 10:00 p.m. and 7:00 a.m. of the following day that causes any impulsive sound or raucous or unnecessary noise within 200 feet of any residential building.

5.3.2 Vibration

There are currently no local regulatory standards for groundborne vibration that are applicable to the Project.

Chapter 6
Impacts and Mitigation Measures

6.1 Methodology

6.1.1 Construction Noise and Vibration

A combination of existing literature, baseline noise level measurements, and application of accepted noise and vibration prediction and propagation algorithms were used for the prediction of short-term construction and long-term non-transportation and transportation source noise levels, as well as for the evaluation of groundborne vibration impacts. The evaluation of potential noise and vibration impacts associated with Project construction was based on the construction schedule, phasing, and equipment assumptions provided by the Applicant for the Project.

Using the construction assumptions provided for the Project, noise and vibration levels were estimated using the methods described below.

Noise

Construction-related noise was analyzed using data and modeling methodologies from the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (FHWA 2008), which predicts average noise levels at nearby receptors by analyzing the type of equipment, the distance from source to receptor, usage factor (the fraction of time the equipment is operating in its noisiest mode while in use), and the presence or absence of intervening shielding between source and receptor. This methodology is conservative, as it calculates the composite average noise levels for all equipment items scheduled during each construction phase to be operated at the same time, which would seldom, if ever, occur during construction. Construction noise levels were predicted assuming an average noise attenuation rate of 6 dB per doubling of distance from the source. Based on guidance from Section 111.02(a) of the LAMC (which indicates an average value should be used to describe sound levels), Section 111.02(b) of the LAMC (which references a period of "60 consecutive minutes") and Section 112.05 of the LAMC (which describes a noise limit of 75 dBA for construction equipment), a noise limit of 75 dBA 1-hour L_{eq} is used as the criterion to define a noise exceedance associated with construction activities. Thus, to analyze the Project's potential noise impacts, the average 1-hour L_{eq} construction noise level generated during each phase of construction was estimated at each analyzed receptor based on their distance to the construction phase activity. To reflect the assumed distribution of equipment across the Project Site, source-to-receptor distances used in the analysis were the acoustical average distances between the Project Site and each receptor.[3]

[3] The acoustical average distance is used to represent noise sources that are mobile or distributed over an area (such as the analyzed construction area within the Project Site); it is calculated by multiplying the shortest distance between the receptor and construction area boundary by the farthest distance and then taking the square root of the product.

During Project construction, noise levels would also be generated from construction-related traffic associated with worker trips and haul truck trips on local roadways. The analysis of roadway noise levels from the Project's construction traffic was conducted using a proprietary traffic noise model, with calculations based on data from the FHWA Traffic Noise Model, Version 2.5, Look-Up Tables (FHWA 2004). This model allows for the calculation of noise levels at specific distances from the center of the roadway based on traffic volumes, average speeds, and site environmental conditions. For the purpose of this analysis, the highest daily worker and haul truck trips that would occur during Project construction are assessed. The construction-related off-site worker trip volumes were obtained from the Applicant and the haul truck volumes were derived from data provided by the Applicant regarding the amount of materials that would need to be exported from the Project Site (Gibson Transportation Consulting, Inc. 2019). The predicted roadway noise levels resulting from the addition of the Project's construction-related traffic volumes to existing traffic volumes along segments of the potential haul routes used during Project construction were assessed against the existing roadway noise levels without the Project's construction traffic.

Vibration

Construction-related vibration resulting from the Project was analyzed using data and modeling methodologies provided by Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2013). This guidance manual provides typical vibration source levels for various types of construction equipment, as well as methods for estimating the propagation of groundborne vibration over distance. The Project would not require high-impact construction methods, such as pile driving or blasting. Therefore, the highest groundborne vibration levels would be associated with conventional heavy construction equipment, such as bulldozers, backhoes, and loaders. According to Caltrans data, the largest generally available models of each of these heavy pieces of equipment can generate a PPV of 0.089 in/s at a reference distance of 25 feet, while smaller versions of this equipment can generate a PPV of 0.003 in/s at a reference distance of 25 feet. All of the analyzed equipment is classified as continuous/frequent intermittent vibration sources based on Caltrans' vibration criteria.

The following equation from the guidance manual was used to estimate the change in PPV levels over distance:

$$PPV_{rec} = PPV_{ref} \times (25/D)^{n}$$

where PPV_{rec} is the PPV at a receptor; PPV_{ref} is the reference PPV at 25 feet from the equipment; D is the distance from the equipment to the receptor, in feet; and n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1). This equation was used to estimate the PPV at each of the closest vibration-sensitive receptors based on the worst-case (closest) distance between each source and receptor.

6.1.2 Operational Noise

The analysis of traffic noise in the study area was based on data from the Transportation Impact Study (TIS) for the Project (Gibson Transportation Consulting, Inc. 2019). The analysis was conducted using a proprietary traffic noise model, with calculations based on data from the FHWA Traffic Noise Model, Version 2.5, Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling included average daily traffic (ADT) volumes, assumed traffic mix and daily distribution

(the percentage of automobiles versus medium trucks and heavy trucks during each hour of the day), and traffic speeds, based on the posted speed limits. The TIS does not directly analyze ADT; therefore, based on guidance from Gibson Transportation Consulting, Inc., these values were estimated by assuming that the peak PM traffic volumes reported in the TIS represented 10 percent of the ADT. To quantify the effects of the Project, traffic noise was analyzed using four different scenarios: (1) existing, (2) existing plus Project, (3) future (2023) without Project, and (4) future (2023) with Project. The first two scenarios were used to analyze the direct traffic noise impacts of the Project; scenarios 3 and 4 were used to analyze the future/cumulative impacts. The noise modeling is provided in Appendix B.

Aside from traffic noise associated with the Project that would be generated off-site, on-site noise levels would also be generated by stationary noise sources such as mechanical equipment (HVAC equipment), the on-site parking structure, the loading area serving the proposed retail use and refuse collection at the Project Site, and the outdoor amenity areas (e.g., activities at the outdoor swimming pool and spa area, outdoor kitchen, community garden, pet park). Using noise level data from published sources as well as from noise measurements, impacts from these on-site stationary noise sources are evaluated by estimating the noise levels that each noise source would generate at the nearest noise-sensitive receptors to the Project Site. The estimated noise level from each noise source takes into account the distance from source to receptor and the presence or absence of intervening shielding between source and receptor.

For the Project's HVAC equipment, noise level data from an industry manufacturer were obtained based on the general specifications of the HVAC units that would be used for the Project, which would be 3-ton HVAC units (Tabrizi pers. comm.).

The Project's on-site parking structure noise level was estimated using FTA's recommended methodology for stationary source general assessment, which uses the following equation to estimate noise levels for parking garages:

$$L_{eq}(h) = SEL_{ref} + 10\log(N_A/1000) - 35.6$$

where $L_{eq}(h)$ is the hourly L_{eq} noise level at 50 feet; SEL_{ref} is the reference noise level for a stationary noise source represented in sound exposure level at 50 feet from the noise source;[4] and N_A is the number of automobiles per hour.

For the Project's loading area, which would be used by both delivery and refuse collection vehicles serving the Project, previously measured noise level data collected at a loading dock for a retail warehouse were used to estimate the noise levels at the nearest off-site sensitive receptors.

As the Project's noise levels associated with the outdoor amenities (pool deck and spa area, outdoor kitchen, community garden, tot lot, etc.) would consist primarily of people congregating and conversing in those areas, published data for human speech noise levels for males, females, and children were obtained and noise levels were estimated based on assumptions of the number of people who are expected to gather in each of the Project's outdoor amenity areas. The speech noise

[4] A SEL_{ref} of 92 dBA is cited by the FTA for a parking garage with 1,000 cars during the peak activity hour. Although the Project's peak hour vehicle trips would be much less than 1,000 vehicles, the 92 dBA SEL_{ref} is used for the noise analysis of the Project's on-site parking garage for the purposes of conducting a conservative analysis.

levels for people in various noise environments used for analysis in this report are shown in Table 6-1. For the Project's pet park, previously measured noise level data collected at a dog park were used to estimate the noise levels at the nearest off-site sensitive receptors.

Table 6-1. Average A-Weighted Sound Levels of Speech for Different Vocal Efforts[a]

	Sound Levels (dBA L_{eq})		
Voice Effort	**Male**	**Female**	**Children**
Casual	53	50	50
Normal	58	55	55
Raised	65	62	62
Loud	75	71	71
Shout	88	82	82

Sources: Harris 1998; U.S. Environmental Protection Agency 1977.
[a] Measured at a distance of 1 meter.

6.2 Project Design Features

The following project design feature (PDF) would be implemented as part of the Project:

PDF-NOI-1: No pile driving activities or blasting will be allowed at the Project Site during construction.

PDF-NOI-2: All noise-generating mechanical equipment during Project operations will be equipped with noise-muffling devices or shielding (e.g., enclosures) to minimize noise levels at neighboring properties in accordance with Section 112.02 of the LAMC, 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 5 dBA. The noise control methods that will be implemented by the Project to reduce its mechanical equipment noise levels may include, but will not be limited to:

a) Selecting mechanical equipment designed to produce low noise levels. This includes the mechanical equipment for heating and cooling interior spaces (i.e., HVAC) as well as equipment associated with the swimming pool;

b) Shielding mechanical equipment with screens, acoustical louvers, or other noise barriers; and

c) Installing a parapet wall around the perimeter of the rooftop of the mixed-use building to minimize noise levels from HVAC equipment.

PDF-NOI-3: The Project will implement operational restrictions to limit excessive noise generated by residents at the outdoor amenity areas located at the ground floor level, which includes the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. Such restrictions will include limiting the hours of use at these outdoor areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire or safety codes), and restricting the exterior use of amplified music. Building management staff would be required to ensure that operations remain in compliance with the daytime noise limits set forth in the LAMC.

6.3 Thresholds of Significance

Appendix G of the California Environmental Quality Act Guidelines presents screening questions lead agencies can utilize to analyze the significance of project impact, and are as follows:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b) Generation of excessive groundborne vibration or groundborne noise levels.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

6.3.1 Short-term Construction Noise Criteria

As discussed previously in Section 5.3, the City regulates construction noise levels per the requirements of the LAMC, which establishes permissible hours for construction activities under Section 41.40 and noise level limits for construction equipment under Section 112.05. As such, the construction noise levels generated by the Project would be assessed against these noise regulations and standards of the LAMC to determine whether potential noise impacts would occur. Therefore, construction activities that either occur outside of the City's permitted construction hours and days identified in Section 41.40 of the LAMC or generate noise levels in excess of the 75 dBA 1-hour L_{eq} noise limit established under Section 112.05 of the LAMC are considered to result in significant impacts. Section 112.05 of the LAMC indicates that the 75 dBA L_{eq} noise limit applies at a distance of 50 feet. However, for this analysis, the noise limit is conservatively applied at the nearest sensitive receptors to the Project Site in recognition of the fact that there are existing noise-sensitive receptors fewer than 50 feet from the Project Site.

6.3.2 Long-Term Operational Noise Criteria

In accordance with Chapter XI, Noise Regulation, of the LAMC, a noise level increase of 5 dBA over the existing average ambient noise level at an adjacent property line is considered a noise violation for most operational noise sources (City of Los Angeles 2019). This standard applies to: (1) radios, television sets, and similar devices defined in LAMC Section 112.01; (2) air conditioning, refrigeration, heating, pumping, and filtering equipment defined in LAMC Section 112.02; (3) powered equipment intended for repetitive use in residential areas and other machinery, equipment, and devices defined in LAMC Section 112.04; and (4) motor vehicles driven on site as defined in LAMC Section 114.02. As such, based on the regulations of the LAMC, a significant operational noise impact would occur if Project-related operational on-site (i.e., non-roadway) noise sources such as building mechanical/electrical equipment, parking facilities, outdoor gathering areas, and loading dock areas increase the existing ambient noise level at noise-sensitive uses by more than 5 dBA.

6.3.3 Traffic Noise Criteria

With respect to roadway noise, which is a continual noise source that occurs throughout the day, a 24-hour average noise level metric (i.e., dBA CNEL) is used to assess noise impacts associated with the Project based on the City's land use/noise compatibility guidelines shown in Table 5-3.[5] With respect to the community noise assessment, changes in noise levels of fewer than 3 dBA are generally not discernable to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase. For the purpose of this analysis, a significant impact related to an increase in traffic noise levels resulting from Project-induced vehicle trips during construction and operations would occur if the Project causes the ambient noise level measured at the property line of affected sensitive land uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category identified in Table 5-3, or any 5 dBA or greater noise increase.

6.3.4 Groundborne Vibration Criteria

As there are currently no local regulatory standards for groundborne vibration that are applicable to the Project, the lead agency has determined to use the quantitative criteria published by Caltrans to assess potential structural damage risks and human annoyance resulting from groundborne noise and vibration (refer to Tables 5-1 and 5-2) as the threshold of significance for this analysis.

6.4 Project Impacts

Impact Noise-1: Would the project generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Construction Noise

On-site Construction Activities

Construction activities associated with the Project are anticipated to last approximately 39 months, with completion anticipated in 2023. During this time, temporary increases in noise levels in the Project area would occur during certain phases of the construction period due to the operation of various large construction equipment within the Project Site. Construction of the Project would involve demolition of the existing single-story office, single-story commercial building, and associated surface parking lot followed by construction of a seven-story mixed-use building with 432 apartment units above 22,000 square feet of commercial retail and restaurant uses. Grading activities would include cut and fill with approximately 89,000 cubic yards of soil being exported from the Project Site. For any individual off-site receptor adjacent or in proximity to the Project,

[5] As discussed in Section 5.3.1 above, the City's land use/noise compatibility guidelines are most commonly applied to noise from mobile (transportation) noise sources, such as traffic, rail, and aircraft noise. Stationary noise sources are most commonly addressed using the municipal code standards.

noise levels experienced over the construction period would fluctuate depending on the type of construction activity and the location of that activity occurring within the Project Site. The noise levels generated by each individual piece of construction equipment associated with each of the different construction activities that would occur as part of the Project are shown in Table 6-2.

Table 6-2. Project Construction Activities and Equipment Noise Levels

			Individual Equipment Noise Levels (dBA) at 50 Feet
Activity	**Equipment**	**Quantity[a]**	**L_{eq}**
Demolition	Concrete Saw	1	83
	Dozer	2	78
	Excavator	2	77
Site preparation	Backhoe	1	74
	Dozer	1	78
	Excavator	1	77
	Loader	1	75
Grading	Backhoe	1	74
	Dozer	1	78
	Excavator	1	77
	Loader	2	75
Building Construction	Crane	1	73
	Forklift	1	68
	Generator	1	78
	Loader	1	75
	Welder	1	70
Paving	Backhoe	1	74
	Cement/mortar mixer	1	75
	Paver	2	74
	Roller	1	73
Architectural Coatings	Air Compressor	1	74

Source: FHWA 2008.
[a] The quantity of each type of equipment that is anticipated to operate at the Project Site during each construction activity.

For the purpose of this analysis, the composite hourly average noise levels for the multiple equipment items associated with each construction activity shown in Table 6-2 were first calculated at a reference distance of 50 feet as part of an intermediary step for use in estimating the noise levels at sensitive off-site receptors. The composite hourly average noise levels for each construction activity are shown in Table 6-3.

Table 6-3. Composite Noise Levels for Each Construction Activity

Construction Activity	Average Composite Hourly Noise Level (L_{eq}) at 50 feet, dBA
Demolition	86
Site preparation	82
Grading	83
Building Construction	81
Paving	81
Architectural Coatings	74

As shown in Table 6-3, the average hourly noise levels for the Project's construction activities would range from 74 to 86 dBA L_{eq} at the reference distance of 50 feet. The highest noise levels would be associated with the demolition activities.

The nearest sensitive land uses in the Project Site vicinity that could be exposed to increased noise levels during Project construction are be the single-family residences to the north, across Strathern Street and the single family residences directly adjacent to the eastern and southern Project Site boundaries. Additional single-family residences farther away that could also be exposed to increased noise levels during Project construction include those to the west, across Lankershim Boulevard and behind the automotive and commercial uses that front the roadway, and farther south, across Arminta Street. Additionally, other noise-sensitive land uses in the Project vicinity include the Village Inn Motel approximately 450 feet southwest of the Project Site and the Arminta Street Elementary School approximately 715 feet east of the Project Site. For the purposes of this analysis, potential construction-related noise impacts were assessed at each of these sensitive receptor locations, which are shown on Figure 6-1.

The highest construction noise levels at each of the analyzed receptor locations were estimated based on the composite noise levels shown in Table 6-3 and the distance of each analyzed receptor from the Project's construction activities. The estimated construction noise levels experienced by the nearby sensitive receptors are shown in Table 6-4. Detailed calculations are provided in Appendix B.



Figure 6-1
Off-Site Sensitive Receptor Locations Analyzed
7940 Lankershim Blvd. Project

Table 6-4. Estimated Construction Noise Levels at Nearby Sensitive Receptors – Unmitigated

Receptor Description/Location	Highest Estimated Average Hourly Noise Level (dBA L_{eq})[a]
1. Single-family residences along West Strathern Street, approximately 90 feet north of Project Site	70
2. Single-family residences directly east of, and adjacent to, the northeastern portion of the Project Site (north of Blythe Street)	83
3. Single-family residence directly east of, and adjacent to, the southeastern portion of the Project Site (south of Blythe Street)	82
4. Single-family residences directly south of, and adjacent to, the Project Site	84
5. Single-family residences along Arminta Street, approximately 215 feet south of the Project Site	66[b]
6. Single-family residences approximately 230 feet west of the Project Site, across North Lankershim Boulevard	66[b]
7. Village Inn Motel approximately 450 feet southwest of the Project Site, across North Lankershim Boulevard	61[b]
8. Arminta Street Elementary School approximately 715 feet east of the Project Site, along Beck Avenue between Strathern Street and Arminta Street	47[c]

[a] The noise levels are estimated using a source-to-receptor distance that represents the acoustical average distance between the construction area and each receptor location.
[b] The estimated construction noise level at this location takes into account an additional 5 dBA reduction in noise levels due to the presence of intervening building structures that obstruct the line of sight between the receptor and the Project Site.
[c] The estimated construction noise level at this location takes into account an additional 10 dBA reduction in noise levels due to the presence of numerous rows of intervening single-family residential structures that obstruct the line of sight between the receptor and the Project Site.

As shown in Table 6-4, the highest estimated construction-related noise levels that could result at nearby sensitive receptors over the course of Project's construction period would range from 47 dBA L_{eq} at sensitive receptor 8 to 84 dBA L_{eq} at sensitive receptor 4. The construction noise levels at sensitive receptors 2, 3, and 4 would exceed 75 dBA L_{eq}, while the construction noise levels at the other analyzed sensitive receptors would be below 75 dBA L_{eq}. It should be noted that the noise levels shown in Table 6-4 are considered to be a conservative estimate, as they account for the concurrent operation of all construction equipment for the highest noise-generating construction activity. Throughout the course of a construction day, it would be seldom if ever that all construction equipment would be run simultaneously. Instead, the operation of each piece of construction equipment at the Project Site is expected to be staggered throughout the construction day and each piece would be turned off when not in use. Furthermore, during the quieter phases of construction or when construction activity moves farther away from a receptor, the noise levels would decrease. As such, the highest construction noise levels experienced at each off-site sensitive receptor would only occur over a temporary period within the Project's overall construction schedule.

Nonetheless, because the construction noise levels at sensitive receptors 2, 3, and 4 would exceed 75 dBA L_{eq}, Mitigation Measure NOI-1 is recommended to reduce the noise levels at these affected receptors by requiring the implementation of various noise-minimizing measures during Project construction. Amongst these measures are the erection of a 15-foot-high temporary noise barrier along the eastern and southern boundaries of the Project Site, scheduling high noise-producing construction activities during periods that are least sensitive at off-site sensitive receptors, positioning stationary construction equipment as far away as practical from adjacent noise-sensitive receptors, and limiting on-site vehicle speeds and truck idling, among other measures. The estimated construction noise levels experienced by the nearby sensitive receptors with implementation of Mitigation Measure NOI-1 are shown in Table 6-5. Detailed calculations are provided in Appendix B.

Table 6-5. Estimated Construction Noise Levels at Nearby Sensitive Receptors – Mitigated[a]

Receptor Description/Location	Highest Estimated Average Hourly Noise Level (dBA L_{eq})[b]
1. Single-family residences along West Strathern Street, approximately 90 feet north of Project Site	70
2. Single-family residences directly east of, and adjacent to, the northeastern portion of the Project Site (north of Blythe Street)	73
3. Single-family residence directly east of, and adjacent to, the southeastern portion of the Project Site (south of Blythe Street)	72
4. Single-family residences directly south of, and adjacent to, the Project Site	74
5. Single-family residences along Arminta Street, approximately 215 feet south of the Project Site	56[c]
6. Single-family residences approximately 230 feet west of the Project Site, across North Lankershim Boulevard	66[c]
7. Village Inn Motel approximately 450 feet southwest of the Project Site, across North Lankershim Boulevard	61[c]
8. Arminta Street Elementary School approximately 715 feet east of the Project Site, along Beck Avenue between Strathern Street and Arminta Street	37[d]

[a] The mitigated construction noise levels account primarily for the erection of a 15-foot-high temporary noise barrier with a minimum sound transmission class (STC) rating of 28 along the eastern and southern boundaries of the Project Site that would provide a minimum of 10 dBA noise attenuation.
[b] The noise levels are estimated using a source-to-receptor distance that represents the acoustical average distance between the construction area and each receptor location.
[c] The estimated construction noise level at this location takes into account an additional 5 dBA reduction in noise levels due to the presence of intervening building structures that obstruct the line of sight between the receptor and the Project Site.
[d] The estimated construction noise level at this location takes into account an additional 10 dBA reduction in noise levels due to the presence of numerous rows of intervening single-family residential structures that obstruct the line of sight between the receptor and the Project Site.

As shown in Table 6-5, with implementation of Mitigation MeasureNOI-1, the highest estimated construction-related noise levels at sensitive receptors 2, 3 and 4 would be 73, 72, and 74 dBA L_{eq},

respectively, which would all be below 75 dBA L_{eq}. The noise levels shown in Table 6-5 take into consideration the noise attenuation provided by the distance between the sources and the receptors, and the 15-foot-high noise barrier with a minimum sound transmission class (STC) rating of 28 that would be constructed around the eastern and southern perimeter of the Project Site boundary, which would be capable of reducing noise levels by a minimum of 10 dBA. The other noise control methods listed as part of Mitigation Measure NOI-1 are more difficult to quantify and, as such, are not factored into the estimated noise levels. Therefore, actual noise levels would be lower than what is shown in Table 6-5. Thus, with the implementation of Mitigation Measure NOI-1, the Project would not expose any of the nearest off-site sensitive receptors to noise levels that exceed 75 dBA L_{eq}. Therefore, construction noise impacts would be reduced to a less-than-significant level.

Mitigation Measure NOI-1: The following measures shall be employed during Project construction to reduce short-term noise levels:

a) Construction activities will comply with the hourly restrictions for noise-generating construction activities, as specified in Section 41.40(a) of the LAMC. Accordingly, construction activities will be prohibited between the hours of 9:00 p.m. and 7:00 a.m. on weekdays, and between 6:00 p.m. and 8:00 a.m. on any Saturday or national holiday or at any time on Sunday.

b) A 15-foot-high temporary noise barrier with a minimum STC rating of 28 will be erected along the eastern and southern boundaries of the Project Site to provide a minimum of 10 dBA noise attenuation.

c) Equipment staging and laydown areas will be located at the farthest practical distance from nearby residential land uses.

d) High noise-producing construction activities will be scheduled during periods that are least sensitive, such as during daytime hours when neighboring residents are generally away at work.

e) Construction equipment will be fitted with noise-reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer.

f) Stationary construction equipment, such as compressors, will be positioned as far away as practical from adjacent noise-sensitive receptors.

g) All construction equipment not in use will be switched off.

h) Haul trucks will not be allowed to idle for periods greater than 5 minutes, except as needed to perform a specified function (e.g., concrete mixing). Signs will be posted in delivery loading areas specifying this idling restriction.

i) On-site vehicle speeds will be limited to 15 miles per hour or less (except in cases of emergency).

j) Construction-related truck traffic will be routed away from noise-sensitive areas to the extent feasible.

k) Back-up beepers for all construction equipment and vehicles will be broadband sound alarms or adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters will be employed.

l) A designated point of contact will be identified to address noise-related complaints during construction. The noise disturbance coordinator will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler) and will be required to implement reasonable measures such that the complaint is resolved.

Construction Traffic

Construction worker vehicles and haul trucks, which would transport equipment and materials to and from the Project Site, would incrementally increase noise levels on the local roads in the Project area. The trucks traveling to and from the Project Site would be required to travel along the haul route approved by the City of Los Angeles for the Project. While the specific haul route has not been finalized at this stage, it is likely that construction traffic would access the Project Site using either Strathern Street and/or Lankershim Boulevard from either Interstate 5 or State Route 170.

Based on construction-related information provided by the Applicant, it was determined that the grading construction phase for the Project would require the most heavy truck trips per day, which would contribute most to increased roadway noise levels in the Project area. During this phase, an estimated 278 daily truck trips (139 inbound and 139 outbound), 55 daily vendor trips (28 inbound and 28 outbound), and 14 daily worker trips (7 inbound and 7 outbound) would occur. To assess the potential traffic noise increase resulting from Project construction, the additional daily traffic volumes generated from Project construction (i.e., 278 truck trips, 55 vendor trips, and 14 worker trips) were added to the existing daily traffic volumes on the segments of Strathern Street and Lankershim Boulevard in the Project vicinity to assess the increase in noise levels. The estimated roadway noise levels resulting from the addition of the Project's construction-related traffic on these two analyzed roadways are shown in Table 6-6.

Table 6-6. Off-Site Construction Traffic Noise Levels

Roadway	Roadway Segment	Existing Traffic Volume Noise Levels (dBA CNEL)[a]	Existing + Project Construction Traffic Volume Noise Levels (dBA CNEL)[a]	Increase (dBA CNEL)
Lankershim Boulevard	South of Tuxford Street	67.6	68.2	0.6
	North of Strathern Street	67.4	68.0	0.6
	South of Strathern Street	67.6	68.2	0.6
	North of Stagg Street	67.8	68.3	0.5

	South of Stagg Street	67.8	68.3	0.5
	North of Saticoy St.	67.8	68.3	0.5
	South of Saticoy St.	67.8	68.4	0.6
Strathern Street	West of Laurel Canyon Boulevard	63.5	64.8	1.3
	East of Laurel Canyon Boulevard	63.2	64.6	1.4
	West of Lankershim Boulevard	62.8	64.3	1.5
	East of Lankershim Boulevard	64.9	65.9	1.0
	West of Tujunga Ave.	64.8	65.8	1.0
	East of Tujunga Ave.	63.7	65.0	1.3
	West of Vineland Ave.	63.2	64.6	1.4
	East of Vineland Ave.	60.9	63.1	2.1

Existing Traffic Information Source: Gibson Transportation Consulting, Inc., 2019.
[a] Noise levels are estimated at 50 feet from the roadway centerline.

As shown in Table 6-6, the increase in traffic noise levels on both Strathern Street and Lankershim Boulevard that could potentially be used as the Project's haul route would all be below the most stringent criterion of 3 dBA CNEL. As such, the Project's effect on daily average ambient noise levels related to construction traffic would be barely noticeable and impacts would be less than significant.

Project Operation

Operational Traffic

The Project would generate new vehicle trips that would incrementally add to traffic levels on surrounding streets and could change the associated traffic noise levels. Based on the Project's TIS, it is estimated that a total net increase of 3,473 daily trips to and from the Project Site would occur as a result of the Project (Gibson Transportation Consulting, Inc., 2019). Table 6-7 summarizes the predicted existing and future noise levels, both with and without the Project, from the roadway segments considered in the TIS. The results indicate that future traffic noise levels with the Project would be 0.2 to 0.8 dB higher than existing baseline conditions, with Project-generated increases contributing 0 to 0.5 dB. This small level of noise increase is considered imperceptible to the human ear. Therefore, impacts associated with traffic noise levels from implementation of the Project would be less than significant.

Table 6-7. Predicted Traffic Noise Levels

Roadway/Segment	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
	Existing (Baseline)	Existing with Project	Increase over Existing (Project Only)	Future without Project	Future with Project	Increase over Existing (Cumulative)	Increase over Future without Project
Strathern Street							
West of Laurel Canyon Road	63.5	63.6	0.1	63.8	63.9	0.4	0.1
East of Laurel Canyon Road	63.2	63.5	0.3	63.5	63.8	0.6	0.3
West of Lankershim Boulevard	62.8	63.1	0.3	63.1	63.4	0.6	0.3
East of Lankershim Boulevard	64.9	65.2	0.3	65.1	65.4	0.5	0.3
West of Tujunga Avenue	64.8	65.0	0.2	65.0	65.2	0.4	0.2
East of Tujunga Avenue	63.7	63.9	0.2	64.0	64.1	0.4	0.2
West of Vineland Avenue	63.2	63.4	0.2	63.5	63.7	0.5	0.2
East of Vineland Avenue	60.9	61.1	0.2	61.2	61.4	0.5	0.2
Stagg Street							
West of Lankershim Boulevard	54.9	55.5	0.6	55.3	55.7	0.8	0.5
East of Lankershim Boulevard	53.9	54.3	0.4	54.2	54.6	0.7	0.3
Saticoy Street							
West of Lankershim Boulevard	64.3	64.3	0.0	64.6	64.6	0.3	0.0
East of Lankershim Boulevard	63.8	63.9	0.1	64.1	64.1	0.3	0.0
West of Tujunga Avenue	63.4	63.4	0.0	63.7	63.7	0.3	0.0
East of Tujunga Avenue	62.2	62.3	0.1	62.5	62.6	0.4	0.1
Roscoe Boulevard							
West of Webb Avenue	68.4	68.4	0.0	68.6	68.6	0.2	0.0
East of Webb Avenue	68.1	68.1	0.0	68.3	68.3	0.2	0.0
Laurel Canyon Boulevard							
North of Strathern Street	67.3	67.4	0.1	67.6	67.7	0.4	0.1
South of Strathern Street	67.2	67.3	0.1	67.4	67.5	0.3	0.1

Roadway/Segment	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline (dB CNEL)						
	Existing (Baseline)	Existing with Project	Increase over Existing (Project Only)	Future without Project	Future with Project	Increase over Existing (Cumulative)	Increase over Future without Project
Webb Avenue							
North of Roscoe Boulevard	60.1	60.1	0.0	60.4	60.4	0.3	0.0
South of Roscoe Boulevard	61.6	61.6	0.0	61.8	61.8	0.2	0.1
North of Strathern Street	61.0	61.0	0.0	61.2	61.2	0.2	0.1
Lankershim Boulevard							
South of Tuxford Street	67.6	67.7	0.1	67.9	68.0	0.4	0.1
North of Strathern Street	67.4	67.4	0.0	67.7	67.7	0.3	0.1
South of Strathern Street	67.6	67.8	0.2	67.9	68.1	0.5	0.2
North of Stagg Street	67.8	68.0	0.2	68.1	68.3	0.5	0.2
South of Stagg Street	67.8	67.9	0.1	68.1	68.2	0.4	0.1
North of Saticoy Street	67.8	67.9	0.1	68.1	68.2	0.4	0.1
South of Saticoy Street	67.8	67.9	0.1	68.1	68.2	0.4	0.1
Tujunga Avenue							
South of Strathern Street	65.8	65.9	0.1	66.0	66.1	0.3	0.1
North of Saticoy Street	66.0	66.0	0.0	66.2	66.2	0.2	0.1
South of Saticoy Street	66.2	66.3	0.1	66.4	66.5	0.3	0.0
Vineland Avenue							
South of Strathern Street	68.2	68.2	0.0	68.4	68.5	0.3	0.1

Stationary Noise Sources

Once operational, the Project would introduce stationary on-site noise sources at the Project Site. These would include the on-site parking structure, retail drive-through, HVAC mechanical equipment, loading/unloading and trash pick-up activities, and activities at the outdoor amenity areas such as the swimming pool deck, game lounge, outdoor kitchen, tot lot, BBQ and sitting area, pet park, and community garden.

Parking/Drive-Through

The Project would include a parking structure consisting of one subterranean level and one at-grade level that provides up to 541 parking spaces (432 residential and 109 commercial parking spaces). All parking would be fully enclosed and screened from public view. Access to the parking structure would be provided via a full-access driveway on West Strathern Street and a limited-access driveway on North Lankershim Boulevard that accommodates only right-turn ingress and right-turn egress movements. The driveway on West Strathern Street would provide access to the residential uses, while the driveway on North Lankershim Boulevard would provide access to both the residential and commercial uses on site. In addition, the retail drive-through would be accessed via a separate driveway along North Lankershim Boulevard. Activities at the parking structure would generate sporadic noise from vehicles starting, car doors slamming, car alarms, people talking, etc. However, with the exception of the entrance and exit driveways, the parking structure would be fully enclosed and screened as part of the Project design. As such, any noise that is generated within the structure would be shielded from adjacent land uses and would not result in any substantial increase in long-term noise levels at nearby off-site receptors. Nonetheless, noise levels would still be generated as vehicles enter and exit the parking structure. The nearest noise-sensitive uses to the full-access driveway on West Strathern Street would be the single-family residences directly adjacent to the Project Site on the east and north of Blythe Street, while the nearest noise-sensitive uses to the limited-access driveway on North Lankershim Boulevard would be the single-family residences directly adjacent to the Project Site on the south.

Based on the Project's TIS, the Project is estimated to result in a total net increase of 3,473 daily trips to and from the Project Site, with an anticipated 210 new trips and 295 new trips during the AM and PM peak hours, respectively (Gibson Transportation Consulting, Inc., 2019). For the purposes of this analysis, the PM peak-hour traffic volumes were used to estimate noise levels generated at the parking structure's driveways, as they are higher than the traffic volumes for the AM peak hour. Of the total PM peak-hour trips that would be generated by the proposed residential uses (171 trips), it was assumed that 75 percent of these peak-hour trips would access the driveway on West Strathern Street, which only provides access to residential uses, while the remaining 25 percent of the peak-hour residential trips would access the limited-access driveway on North Lankershim Boulevard, which provides access to both residential and commercial uses at the Project Site. Additionally, it was assumed that all of the PM peak-hour trips generated by the proposed restaurant use (54 trips) and 75 percent of the PM peak-hour trips generated by the proposed retail use (56 trips) would also access the limited access driveway on North Lankershim Boulevard. Finally, it was assumed that the remaining 25 percent of the PM peak-hour trips associated with the retail use (19 trips) would access the separate driveway along North Lankershim Boulevard for the retail drive-through. Based on these assumptions and the distance to the nearest off-site sensitive receptors from the Project's driveways, it was determined, using FTA's recommended methodology

for stationary source general assessment, that the Project's highest peak-hour vehicle trips would generate noise levels of approximately 45 dBA L_{eq} and 37 dBA L_{eq} at the single-family residences directly adjacent to the eastern and southern Project Site boundaries, respectively (FTA, 2018). Because these noise levels would not exceed either the daytime or nighttime ambient noise levels measured at the neighboring single-family residences (locations LT1 and LT2 as shown in Table 4-1), the noise levels generated by the Project's parking-related activity would not result in any substantial increase in long-term noise levels at these off-site receptors. As these nearest receptors would not be exposed to a substantial increase in long-term noise levels from the Project's parking structure, the noise levels experienced at receptors that are farther from the Project Site would also not be substantial. Therefore, this impact would be less than significant.

Aside from vehicle-related noise levels, the proposed retail use would also periodically generate noise if it were to use a drive-through window speaker system. However, if such a system were used, the proposed retail drive-through is not adjacent to any off-site sensitive receptors. The nearest receptors to this drive-through would be the single-family residential uses approximately 200 feet away to the northeast, across West Strathern Street, and the single-family residential uses approximately 235 feet west of the Project Site, across North Lankershim Boulevard and behind the automotive servicing uses fronting that roadway. The nearest off-site residences to the northeast would be partially shielded from the drive-through by the northern portion of the proposed mixed-use building as well as the existing fast food restaurant. In addition, the retail drive-through would be enclosed along that northern side of the Project Site boundary, which would further reduce the emanation of noise levels from the window speaker. The nearest off-site residences to the west would be provided with noise shielding from the buildings associated with the automotive service uses that front North Lankershim Boulevard. Additionally, when existing traffic noise levels on North Lankershim Boulevard are taken into consideration, the noise generated by the Project's drive-through window speaker system is not expected to be perceptible at these off-site residences. Therefore, noise impacts associated with the proposed retail drive-through would be less than significant.

Mechanical Equipment

As part of the Project, the HVAC equipment for the mixed-use building would be located on the roof level. Noise would be generated when the HVAC equipment is in operation throughout the day. However, because the proposed mixed-use building would be seven stories in height, the HVAC equipment would be situated much higher than the immediately surrounding sensitive receptor buildings, which range from one story to two stories in height. This vertical distance would attenuate noise levels generated by the HVAC equipment. Additionally, as an industry practice and required under PDF-NOI-2, the design of the on-site HVAC equipment and other noise-generating mechanical equipment associated with the Project would be equipped with noise-muffling devices or shielding (e.g., enclosures, parapet walls) to reduce noise levels that may affect nearby noise-sensitive uses. Such design of on-site mechanical equipment at the Project Site would be required to comply with Section 112.02 of the LAMC, 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 5 dBA. Given compliance with Section 112.02 of the LAMC and the height of the new mixed-use building, noise levels generated from HVAC or other related equipment would not generate substantial noise level increases at nearby off-site sensitive uses.

For the purpose of this analysis, the HVAC equipment noise levels at the nearest off-site receptors to the proposed mixed-use building, which include the single-family residences directly adjacent to the Project Site on the east and north of Blythe Street and the single-family residences directly adjacent to the southern Project Site boundary, are estimated under a scenario where half of the rooftop HVAC equipment (i.e., a total of 216 HVAC units) are in operation at the same time. This is considered to be a representative scenario with respect to HVAC operation at the Project Site, as not all of the total 432 rooftop HVAC units would be running at the same time and each unit would be cycling on and off at various times throughout the day. While the make and model of the HVAC units have not been determined at this juncture, it is anticipated that these would be 3-ton units. Based on the specifications sheet for a 3-ton HVAC unit obtained from an HVAC industry manufacturer, these units can generate noise levels of approximately 45 dBA at 50 feet. Given this reference noise level and assuming that 216 HVAC units would be operating concurrently, a composite noise level of approximately 68 dBA at 50 feet would result. Using this composite noise level and the distance from the approximate center of the mixed-used building's rooftop to the nearest off-site receptors, the resulting noise levels were estimated. Additionally, because the rooftop HVAC units would be installed with screens or other noise barriers and a parapet would also be provided along the perimeter of the rooftop, as required under PDF-NOI-2, a noise attenuation level of 10 dBA was accounted for in the noise level estimates. Based on these assumptions, the estimated HVAC-related noise levels at the single-family residences directly adjacent to the Project Site on the east and north of Blythe Street and the single-family residences directly adjacent to the Project Site on the south would be approximately 47 and 46 dBA L_{eq}, respectively. The 47 dBA L_{eq} noise level that would result at the single-family residences to the east would not exceed either the daytime or nighttime ambient noise levels measured at location LT1 (refer to Table 4-1), while the 46 dBA L_{eq} noise level that would result at the single-family residences to the south would only exceed the nighttime ambient noise level measured at location LT2 by 1 dBA (the daytime ambient noise level at this location would not be exceeded). As such, the operation of HVAC equipment at the Project Site would not exceed the noise limit identified under Section 112.02 of the LAMC (i.e., 5 dBA increase over existing ambient noise levels on the premises of other occupied properties) at these nearest off-site receptors. Therefore, the Project's rooftop HVAC equipment would not result in any substantial increase in long-term noise levels at these off-site receptors. As these nearest receptors would not be exposed to a substantial increase in long-term noise levels from the Project's HVAC equipment, the noise levels experienced at receptors farther from the Project Site would also not be substantial. As such, this impact would be less than significant.

Loading/Trash Pick-up Area

A loading area serving the Project's proposed retail use and a storage area for trash receptacles serving the mixed-use building would be located on the ground level within the new parking structure, behind the retail space that fronts North Lankershim Boulevard. The driveway along North Lankershim Boulevard that serves the retail drive-through would serve as the ingress point for delivery and refuse collection vehicles accessing this loading area. While the loading area would generate noise levels from activities such as truck movements and idling along with general loading/unloading operations, including refuse collection, the location of this area within an enclosed portion of the building's parking structure would shield the nearby off-site sensitive uses from this noise source. Although noise levels generated at the loading area are expected to be mostly contained within the parking structure, some of the noise levels could still emanate from within the parking structure through the vehicle driveways on the eastern and southern sides of the mixed-use building where neighboring residential properties are located.

Based on previously measured noise level data collected at a loading dock serving a retail warehouse, noise levels generated by loading/unloading activities were measured at approximately 62 dBA L_{eq} at a distance of 66 feet. The nearest off-site sensitive receptors that would be exposed to noise levels generated by the Project's loading area would be the single-family residences directly adjacent to the Project Site on the east (north of Blythe Street) and south, which are approximately 220 feet and 320 feet away from the loading area, respectively. Given these distances, and accounting for a 5 dBA attenuation provided by the parking structure, the resulting noise levels at the nearest single-family residences to the east and south of the Project Site would be 46 and 43 dBA L_{eq}, respectively. The 46 dBA L_{eq} noise level that would result at the single-family residences to the east would not exceed either the daytime or nighttime ambient noise levels measured at location LT1, while the 43 dBA L_{eq} noise level that would result at the single-family residences to the south would not exceed either the daytime or nighttime ambient noise levels measured at location LT2 (refer to Table 4-1). As such, the noise levels generated at the loading area serving the mixed-use building would not result in any substantial increase in long-term noise levels at these off-site receptors. As these nearest receptors would not be exposed to a substantial increase in long-term noise levels from the Project's loading area, the noise levels experienced at receptors farther from the Project Site would also not be substantial. Therefore, this impact would be less than significant.

Outdoor Amenity Areas

The Project would include outdoor residential amenity spaces at the podium and ground levels. The podium-level amenity space would be on the second floor of the mixed-use building and would include courtyards, residential patios, an outdoor kitchen, entertainment lounge, outdoor fireplace, and outdoor fire pit and sitting area. These outdoor amenity spaces at the podium level would be entirely within the mixed-use building and would be situated between the building's residential units on all sides. As such, noise levels generated by tenants using these amenities would be contained within the building and would not result in a substantial increase in noise levels at any off-site sensitive receptors.

The outdoor residential amenity spaces at the ground level of the Project Site would include the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. With the exception of the pet park, which would be located in the northern portion of the Project Site, all of the other outdoor spaces would be within the southeastern portion of the Project Site adjacent to the western terminus of the Blythe Street (which would be completed as a cul-de-sac as part of the Project). The closest noise-sensitive uses to this area would be the neighboring single-family residences to the east (both north and south of Blythe Street) and to the south. As such, the noise levels generated at these ground floor outdoor areas, with the exception of the pet park, would be readily perceptible at these nearest off-site receptors. The single-family residence to the east of the Project site and south of Blythe Street is a one-story building that would be separated from the outdoor spaces by the proposed two-story recreation room building that would be in the southeastern corner of the Project Site. Because the footprint of this two-story building would entirely obstruct the line of sight between the Project's outdoor amenity areas and this residence, the building would act as a substantial noise barrier. As a result, the worst-case noise levels are expected to occur at the closest residences north of Blythe Street and at the residences immediately south of the Project. These are the two locations considered in the analysis of noise levels generated at the southeastern ground floor outdoor amenity areas. The noise levels for the pet park, which would be on the opposite side of the Project's seven-story mixed-use building, are analyzed

separately for its nearest off-site receptors, which would be the single-family residences to the north of the Project Site, across West Strathern Street.

Noise levels generated at the outdoor amenity areas on the ground floor would primarily consist of conversational speech among residential tenants and guests. To conduct a conservative analysis for the nearest off-site receptors to the east and south of the Project Site, it is assumed that the various outdoor amenity areas in the southeastern portion of the site would all be used concurrently by tenants and guests, and as such are treated as a single noise source. For this analysis scenario, the following assumptions regarding the number of people at each outdoor area and their voice levels at each outdoor area, which ranges from "normal" to "raised," was used:

- Pool deck and spa – 15 people (half male/half female), with 50 percent of the people talking at a "raised" voice level at any given moment
- Game lounge – Four people (half male/half female), with 50 percent of the people talking at a "raised" voice level at any given moment
- Outdoor kitchen – 10 people (half male/half female), with 50 percent of the people talking at a "normal" voice level at any given moment
- Tot lot – Eight people (half male/half children), with 50 percent of the people talking at a "raised" voice level at any given moment
- BBQ and sitting area – Eight people (half male/half female), with 50 percent of the people talking at a "normal" voice level at any given moment
- Community garden – Six people (half male/half female), with 50 percent of the people talking at a "normal" voice level at any given moment

Overall, this analysis scenario assumes a total of 51 people are using the outdoor amenity areas in the southeastern portion of the Project Site at a given moment. Based on the acoustical average distance from the nearest off-site sensitive receptors to each of the outdoor areas listed above and published data for human speech noise levels for males, females, and children, the resulting noise levels at these receptors were estimated.

As discussed previously, the nearest off-site sensitive receptors that would be exposed to noise levels generated from the Project's pet park would be the single-family residences to the north of the Project Site, across West Strathern Street. Based on previously measured noise level data collected at a dog park, noise levels generated by activities at the park were measured at approximately 50 dBA L_{eq} at a distance of 145 feet. Based on this reference noise level and the acoustical average distance from the proposed pet park to the nearest off-site receptor location, the resulting noise levels were estimated.

The noise levels generated by the Project's outdoor amenity areas at their respective nearest off-site receptors are shown in Table 6-8. As part of the Project, PDF-NOI-3 would be implemented that requires the Project to include operational restrictions to limit excessive noise from the outdoor amenity areas by limiting the hours of use at these areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire

or safety codes), and restricting the exterior use of amplified music. Compliance with the daytime noise limits set forth in the LAMC would be enforced by the Project's building management staff.

Table 6-8. Estimated Noise Levels from Ground Floor Outdoor Amenity Areas at Nearby Sensitive Receptors

Receptor Location	Estimated Noise Level from Outdoor Amenity Areas (dBA L_{eq})	Existing Daytime (7 a.m. to 10 p.m.) Ambient Noise Levels (dBA L_{eq})	Existing Ambient + Project (dBA L_{eq})	Exceed Ambient Noise Level by 5 dBA?
Single-family residences along West Strathern Street, approximately 90 feet north of Project Site[a]	48	68	68	No
Single-family residences directly east of, and adjacent to, the northeastern portion of the Project Site (north of Blythe Street)[b]	50	56	57	No
Single-family residences directly south of, and adjacent to the Project Site[b]	55	50[c]	56	**Yes**

[a] The noise levels are estimated for the pet park only, as this is the closest outdoor amenity area to these off-site receptors.
[b] The noise levels are estimated for all proposed outdoor amenity areas at the ground floor with the exception of the pet park, which would be entirely shielded by the Project's seven-story mixed-used building from these off-site receptors.
[c] As the actual measured daytime ambient noise level at this residentially zoned location is lower than 50 dBA L_{eq} (i.e., 48 dBA L_{eq} based on noise measurement LT2 shown in Table 4-1), the assumed daytime ambient noise level of 50 dBA L_{eq} is used at this location in accordance with LAMC Section 111.03.

As shown in Table 6-8, the noise levels generated by the Project's outdoor amenity areas could exceed the existing ambient noise level at the single-family residences directly south of, and adjacent to, the Project Site by 6 dBA. The noise levels at all other analyzed off-site receptors would be lower than the corresponding ambient noise levels.

As the single-family residences directly south of the Project Site could be exposed to a perceptible noise increase to their existing ambient noise levels, Mitigation Measure NOI-2 is recommended to reduce these noise levels by requiring the erection of a solid wall with a minimum height of 8 feet to serve as a noise barrier along the portion of the Project Site's southern boundary where the outdoor amenity areas are located. This noise barrier, which would be of sufficient height to break the single-family residences' line-of-sight of the Project Site's ground-level outdoor amenity areas, would reduce noise levels by approximately 5 dBA, which would reduce the noise levels experienced by these off-site residences from the Project's outdoor amenity areas to a less-than-significant level (FHWA, 2017).

> **Mitigation Measure NOI-2.** A solid wall with a minimum height of 8 feet shall be erected to serve as a noise barrier along the portion of the Project Site's southern boundary where the outdoor amenity areas are located to reduce noise levels at the adjacent off-site single-family residences.

Composite Operational Noise Levels

The composite noise levels experienced by the nearby sensitive receptors due to all of the Project's operational noise sources occurring concurrently are also evaluated to assess the potential maximum overall increase in ambient noise levels at these off-site receptor locations. For the purpose of this analysis, the composite noise levels generated during Project operations are assessed at the nearest off-site sensitive receptors, which include the single-family residences directly adjacent to the east (north of Blythe Street) and south of the Project Site. Both of these two off-site receptor locations would experience noise levels generated by the Project's parking structure, on-site mechanical equipment, loading area, and residential outdoor amenity areas (with the exception of the proposed pet park, which would be completely shielded from these receptors by the Project's seven-story, mixed-use building). It should be noted that this analysis of the Project's composite operational noise levels is conservative in nature because it assumes that all of the Project's stationary noise sources are generating noise at the same time. In practice, such occurrences are generally rare, as the timing of peak noise levels generated by one noise source typically does not coincide with that of another noise source. For instance, the highest noise levels from the Project's parking structure are expected to be generated during the peak weekday morning and evening hours when residents depart for and return from work, which would not normally coincide with the hours when the Project's residential tenants are expected to use the outdoor amenity areas. Additionally, during the daytime work hours, the majority of the Project's rooftop HVAC units are not expected to be active and generate noise levels that would coincide with the noise levels generated by the other on-site stationary noise sources. Nonetheless, for the purpose of conducting a conservative analysis, the composite noise levels generated from all of the Project's on-site noise sources at the nearest off-site sensitive receptors have been estimated and are shown in Table 6-9.

Table 6-9. Composite Noise Levels from Unmitigated Project Operations at Nearby Sensitive Receptors

	Noise Levels (dBA L_{eq})	
Operational Noise Source	**Single-family residences directly east of Project Site (north of Blythe Street)**	**Single-family residences directly south of Project Site**
Outdoor Amenity Areas		
Game Lounge	34	50
Pool Deck and Spa	40	52
Outdoor Kitchen	31	45
Tot Lot	40	45
BBQ and Sitting Area	46	26
Community Garden	46	24
Parking Structure	44	37
On-site Mechanical (Rooftop HVAC) Equipment	47	46
Loading Area	46	43

Operational Noise Source	Noise Levels (dBA L_{eq})	
	Single-family residences directly east of Project Site (north of Blythe Street)	**Single-family residences directly south of Project Site**
Project Composite Noise Level	**53**	**56**
Existing Daytime Ambient Noise Level[a]	56[b]	50[c]
Existing Daytime Ambient Plus Project Composite Noise Level	**58**	**57**
Increase Over Existing Ambient Noise Level	2	7
Exceed 5 dBA?	No	**Yes**

[a] The Project's composite operational noise levels are evaluated against the daytime (i.e., 7 a.m. to 10 p.m.) ambient noise levels at the nearest off-site sensitive receptors because it will be during these hours of the day when all of the Project's stationary noise sources (i.e., outdoor amenity areas, parking structure, rooftop HVAC equipment, and loading area) could potentially be operating concurrently. As implementation of PDF-NOI-3 would restrict the hours of use at the Project's outdoor amenity areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), these noise sources would not occur during nighttime (i.e., 10 p.m. to 7 a.m.) hours. Therefore, the highest composite operational noise levels from the Project would occur during daytime hours.

[b] Based on the daytime noise levels measured at location LT1 (refer to Table 4-1), which are considered to be representative of the ambient noise levels at the single-family residences directly adjacent to, and east of, the Project site.

[c] Based on the noise measurement conducted at location LT2 (refer to Table 4-1), the daytime noise level was measured to be 48 dBA L_{eq}. In accordance with LAMC Section 111.03, the minimum daytime ambient noise level of 50 dBA L_{eq} in a residential zone should be used if the measured noise level is below this noise level. As such, a daytime ambient noise level of 50 dBA L_{eq} was used for location LT2. The measured noise levels at LT2 are considered to be representative of the ambient noise levels at the single-family residences directly adjacent to, and south of, the Project site.

As shown in Table 6-9, the composite noise levels generated by the Project's operational noise sources would exceed the existing daytime ambient noise levels at the nearest single-family residences to the east and south of the Project Site by 2 dBA and 7 dBA, respectively. Of these two nearest off-site receptor locations, only the residences to the south would be exposed to an increase in ambient noise levels of more than 5 dBA. However, with implementation of Mitigation Measure NOI-2, which would require the erection of a solid wall with a minimum height of 8 feet along the portion of the Project Site's southern boundary where the outdoor amenity areas are located, the noise levels at these neighboring residences would be reduced by approximately 5 dBA for all of the individual operational noise sources with the exception of the rooftop HVAC equipment. The composite noise level generated by Project operations at the single-family residences to the south of the Project Site with implementation of Mitigation Measure NOI-2 is shown in Table 6-10.

Table 6-10. Composite Noise Levels from Mitigated Project Operations at Sensitive Receptors South of Project Site

Operational Noise Source	Noise Levels (dBA L_{eq})
	Single-family residences directly south of Project Site
Outdoor Amenity Areas	
Game Lounge	45
Pool Deck and Spa	47
Outdoor Kitchen	40
Tot Lot	40

Operational Noise Source	Noise Levels (dBA L_{eq}) Single-family residences directly south of Project Site
BBQ and Sitting Area	21
Community Garden	19
Parking Structure	32
On-site Mechanical (Rooftop HVAC) Equipment	46
Loading Area	38
Project Composite Noise Level	**52**
Existing Daytime Ambient Noise Level[a]	50[b]
Existing Daytime Ambient Plus Project Composite Noise Level	**54**
Increase Over Existing Ambient Noise Level	4
Exceed 5 dBA?	No

[a] The Project's composite operational noise levels are evaluated against the daytime (i.e., 7 a.m. to 10 p.m.) ambient noise levels at the nearest off-site sensitive receptors because it will be during these hours of the day when all of the Project's stationary noise sources (i.e., outdoor amenity areas, parking structure, rooftop HVAC equipment, and loading area) could potentially be operating concurrently. As implementation of PDF-NOI-3 would restrict the hours of use at the Project's outdoor amenity areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), these noise sources would not occur during nighttime (i.e., 10 p.m. to 7 a.m.) hours. Therefore, the highest composite operational noise levels from the Project would occur during daytime hours.

[b] Based on the noise measurement conducted at location LT2 (refer to Table 4-1), the daytime noise level was measured to be 48 dBA L_{eq}. In accordance with LAMC Section 111.03, the minimum daytime ambient noise level of 50 dBA L_{eq} in a residential zone should be used if the measured noise level is below this noise level. As such, a daytime ambient noise level of 50 dBA L_{eq} was used for location LT2. The measured noise levels at LT2 are considered to be representative of the ambient noise levels at the single-family residences directly adjacent to, and south of, the Project site.

As shown in Table 6-10, with implementation of Mitigation Measure NOI-2 the composite noise level generated by the Project's operational noise sources would exceed the existing daytime ambient noise levels at the nearest single-family residences to the south of the Project Site by 4 dBA. Therefore, because implementation of Mitigation Measure NOI-2 would reduce the increase in daytime ambient noise levels at these off-site residences to less than 5 dBA, this impact would be reduced to a less-than-significant level.

Impact Noise-2: Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project Construction

The operation of heavy construction equipment at the Project Site would generate groundborne vibration that could affect structures immediately adjacent to the Project Site. These vibration levels could also cause an annoyance to people at those locations. The closest structures to the Project Site are the single-family residences directly adjacent to the eastern and southern Project Site boundaries, the fast food restaurant (Burger King) immediately northwest of the Project Site, and the automotive repair shop (Schiro's Collision Repairs) immediately southwest of the Project Site.

Based on a review of the City's Zone Information and Map Access System, all of the residential buildings adjacent to the east and south of the Project Site were built prior to 1960. As such, for the purpose of this analysis, these residential buildings are considered to be "older residential structures" under Caltrans vibration guidelines. Based on visual inspection, the fast food restaurant and automotive repair shop buildings are considered to be modern commercial buildings. Referring to the Caltrans guideline criteria in Table 5-1, the PPV thresholds for potential building damage are 0.5 in/s for modern commercial buildings and 0.3 in/s for older residential structures.

As part of PDF-NOI-1 that would be implemented by the Project, no high-impact activities such as pile driving or blasting would occur at the Project Site during construction. As such, groundborne vibration would be generated from conventional heavy construction equipment, such as bulldozers, backhoes, loaders, and excavators, during Project construction. Table 6-11 shows the estimated construction-related groundborne vibration levels that could occur at the nearest off-site structures to the Project Site, based on the use of either large (full-size) or smaller (mini-size) mobile equipment (e.g., bulldozers, backhoes, loaders), and the resulting vibration impacts at these locations related to potential building damage and human annoyance.

Table 6-11. Groundborne Vibration Levels at Off-Site Receptor Locations

Off-Site Receptor Location	Approximate Distance to Project Site	Large Mobile Equipment[a]			Small Mobile Equipment[b]		
		Estimated PPV (in/s)	Building Damage?[c]	Human Response[d]	Estimated PPV (in/s)	Building Damage?[c]	Human Resonse[d]
Fast food restaurant directly northwest of, and adjacent to, the Project Site	50	0.042	No	Distinctly perceptible	0.001	No	Below barely perceptible
Single-family residences along the Project Site's eastern boundary	5	0.523	Yes	Severe	0.018	No	Barely perceptible
Single-family residences along the Project Site's southern boundary	5	0.523	Yes	Severe	0.018	No	Barely perceptible
Automotive repair shop directly southwest of, and adjacent to, the Project site	5	0.523	Yes	Severe	0.018	No	Barely perceptible

[a] Representative of any full-size/large excavator, dozer, loader, etc.
[b] Representative of any small excavator, dozer, loader, etc.
[c] Based on Caltrans vibration guidelines, the fast food restaurant and automotive repair shop are considered to be modern commercial buildings while the single-family residences are considered to be "older residential structures." Referring to the Caltrans guideline criteria shown in Table 5-1, the PPV threshold for modern commercial buildings is 0.5 in/s, and the PPV threshold for older residential structures is 0.3 in/s.
[d] Refer to Table 5-2 for Caltrans vibration annoyance criteria.

As shown in Table 6-11, the use of large, full-size mobile equipment at the Project Site could generate vibration levels that exceed the applicable vibration criteria for building damage at the single-family residential buildings directly adjacent to the east and south Project Site boundaries, and the commercial building associated with the automotive repair shop. Vibration levels at the fast food restaurant would not exceed the applicable vibration criteria for building damage at commercial buildings. Additionally, the vibration velocity levels generated by large mobile equipment at the Project Site could result in "severe" annoyance to the occupants at the adjacent residences and automotive repair shop, while the vibration velocity levels would be "distinctly perceptible" at the fast food restaurant. However, none of the applicable vibration criteria for building damage at the identified nearest structures would be exceeded when smaller-sized mobile equipment is used for Project construction. Furthermore, the vibration velocity levels generated by the smaller-sized mobile equipment would be "barely perceptible" at the adjacent residences and automotive repair shop, and well below "barely perceptible" at the fast food restaurant. Although the sizes of the mobile construction equipment that would be operating at the Project Site have not been determined at this juncture, for the purpose of this analysis it is assumed that large, full-sized mobile equipment would be used during Project construction. Under this scenario, and as shown in Table 6-11, the groundborne vibration levels generated by the construction equipment could exceed the applicable vibration criteria for building damage and result in annoyance to the occupants at the immediately surrounding residential and commercial uses. As such, impacts related to groundborne vibration during Project construction would be potentially significant.

To reduce the groundborne vibration impacts at the affected receptors, **Mitigation Measure NOI-3** is recommended. This measure prohibits the use of large mobile equipment within 25 feet of off-site structures adjacent to the Project Site and requires the use of smaller-sized mobile equipment for construction work occurring within 25 feet of an off-site structure. At a distance of 25 feet, large-sized mobile equipment would generate vibration levels of approximately 0.1 in/s PPV, which would not exceed the applicable vibration criteria for building damage to "older residential structures" (0.3 in/s PPV) and commercial structures (0.5 in/s PPV), and would only be "distinctly perceptible" by occupants at these off-site structures. With implementation of Mitigation Measure NOI-3, the nearest off-site receptors to the Project Site would not be exposed to excessive groundborne vibration or groundborne noise levels during Project construction. Consequently, off-site receptors farther from the Project Site would also not be exposed to excessive groundborne vibration or noise levels during Project construction. Therefore, implementation of Mitigation Measure NOI-3 would reduce impacts to a less-than-significant level.

> **Mitigation Measure NOI-3**: During Project construction the use of large, full-size mobile construction equipment, such as bulldozers, excavators, loaders, etc., shall be prohibited within 25 feet of the existing residential and commercial structures directly adjacent to the Project Site boundary. Instead, small-sized mobile equipment (e.g., Bobcats/skidsteers, compact or mini model versions of bulldozers, excavators, small loaders) shall be used for construction work that needs to take place within this distance to off-site structures during all phases of construction.

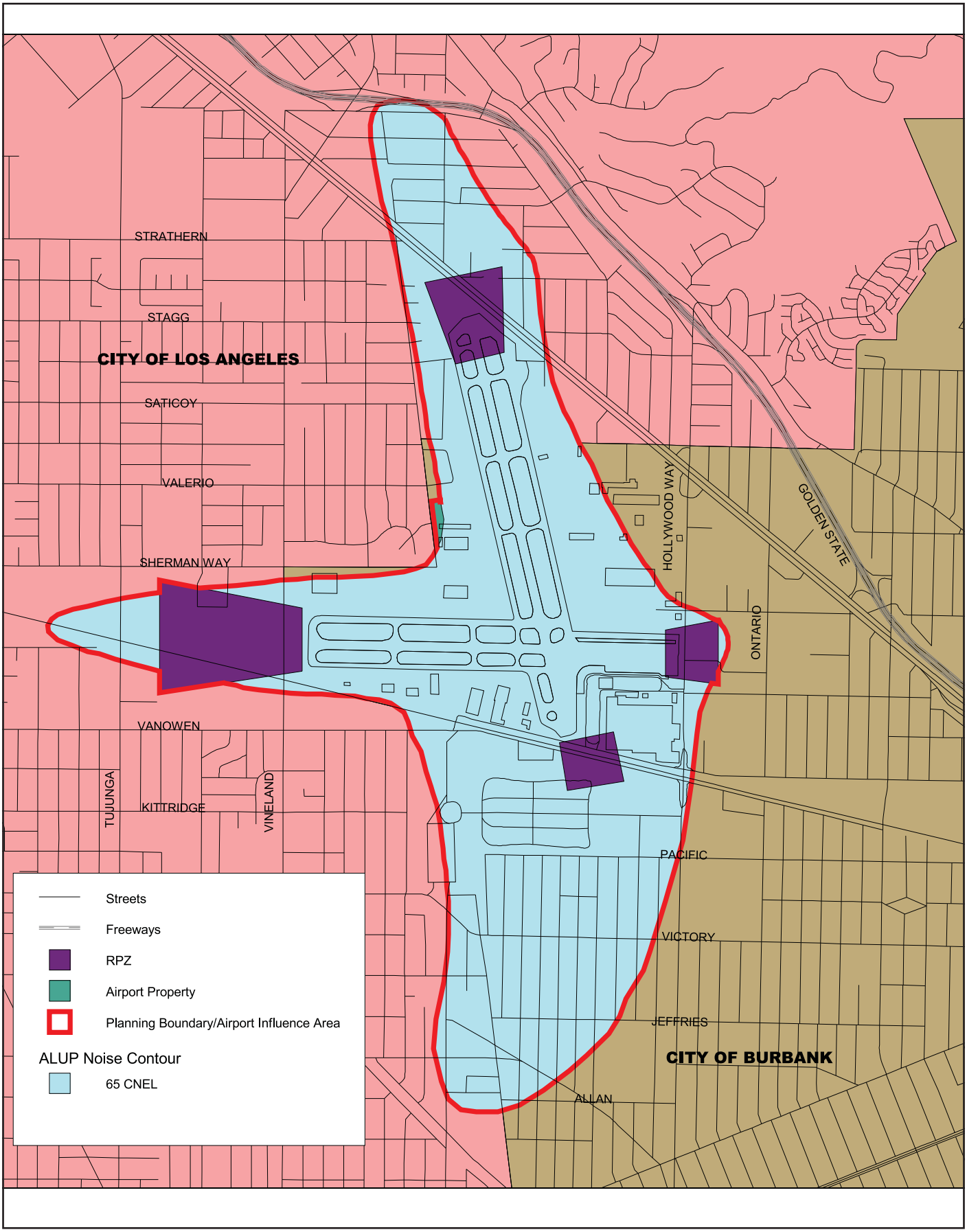
Project Operation

As the Project is a mixed-use development, there would be no major sources of vibration resulting from operation of the Project. While operation of on-site mechanical equipment such as HVAC equipment and exhaust fans could produce low levels of vibration, these vibration levels would only

occur in the immediate area where the equipment is located and would not result in any impacts at nearby off-site structures. Therefore, impacts related to groundborne vibration and noise during Project operations would be less than significant.

Impact Noise-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

There are no private airstrips in the vicinity of the Project area; however, the Hollywood Burbank (Bob Hope) Airport, at 2627 North Hollywood Way in the City of Burbank, is approximately 1.4 miles southeast of the Project Site. While the Project is within 2 miles of the Hollywood Burbank Airport, the Project is well beyond the airport influence area (AIA) of this airport, which is shown on Figure 6-2. The Los Angeles County Airport Land Use Commission defines an AIA as the area within which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. Therefore, because the Project Site is well beyond the Hollywood Burbank Airport's AIA, the Project would not expose people residing or working in the Project area to excessive noise levels generated from this airport, and no impacts would occur.



\\PDCCITRDSGIS1\Projects_1\DLAPIPER\Lankershim_7940\Figures\Doc\Noise

Figure 6-2
Burbank/Glendale/Pasadena Airport Influence Area
7940 Lankershim Blvd. Project

Chapter 7
Cumulative Conditions

Cumulative noise or vibration impacts can occur when two or more projects are under construction simultaneously or generate operational noise or vibration at the same time. Because noise and vibration are localized effects that decrease with distance from the source, significant cumulative impacts do not typically occur unless two or more projects are close to a single receptor. The presence of any natural or manmade barriers (e.g., hills, topography, walls, buildings) between a project site and a receptor will increase the rate of noise reduction over distance and will further reduce any cumulative noise levels.

Related projects in the vicinity of the noise- and vibration-sensitive receptors considered in this analysis include construction activities that could occur simultaneously with construction of the Project, depending on project timing. For the reasons discussed above, construction noise and vibration levels at any single receptor are typically dominated by the closest construction activity. As a result, the chances of construction noise from more distant related project sites making a substantial contribution to overall noise levels at the same receptor is generally low. Nonetheless, incremental increases in total construction noise levels could occur. Based on the related projects list provided in the Project's TIS, the nearest related project to the Project Site would be the proposed residential project at 7660 North Lankershim Boulevard, which is approximately a quarter-mile away to the south. Given this distance of this related project from the Project Site, and along with the numerous intervening structures between this site and the Project Site that would serve to reduce construction-related noise levels, a substantial increase in construction noise levels would not occur should construction of this related project occur at the same time as the Project. In addition, each of the related projects would be subject to LAMC Section 41.40, which limits the hours of allowable construction activities. Each of the related projects would also be subject to Section 112.05 of the LAMC, which prohibits any powered equipment or powered hand tool from producing noise levels that exceed 75 dBA at a distance of 50 feet from the noise source within 500 feet of a residential zone. Noise levels are only allowed to exceed this noise limitation under conditions where compliance is technically infeasible. With conformance to LAMC Sections 41.40 and 112.05, construction-related noise levels generated by related projects would not exceed City noise regulations or standards. As part of the Project, PDF-NOI-1 would be implemented to ensure that the Project's construction activities would comply with the hourly limitations set under LAMC Section 41.40. Additionally, under PDF-NOI-1, the Project would erect a 15-foot-high temporary noise barrier along the eastern and southern boundaries of the Project Site that is capable of reducing noise levels by a minimum of 10 dBA, which would ensure that the Project's construction noise levels would not expose any of the nearest off-site sensitive receptors to noise levels that exceed 75 dBA L_{eq}. Therefore, the Project would not result in a cumulatively considerable contribution to construction noise impacts in the vicinity of the Project.

Because vibration impacts are assessed based on instantaneous peak levels (PPV), worst-case groundborne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. As a result, the vibration from multiple construction sites, even if the sites are near each other, does not generally combine to raise the maximum PPV, and the cumulative effect is no more severe than the effect from the largest individual contribution. As discussed above, the nearest related project to the Project Site is

approximately a quarter-mile away. Due to this distance, and the rapid attenuation of groundborne vibration, the Project and this related project are not close enough to each other to affect the same sensitive receptors should construction of this related project occur at the same time as the Project. Only receptors in the immediate vicinity of each construction site would be potentially affected by each development. Therefore, future development would result in a less-than-significant cumulative impact in terms of groundborne vibration.

Cumulative mobile source noise impacts would occur primarily as a result of increased traffic on local roadways due to the Project and related projects within the study area. However, as shown in Table 6-7, cumulative development along with the Project (i.e., "future with project" traffic noise levels) would increase local noise levels by a maximum of 0.8 dBA CNEL at the roadway segment of Stagg Street, west of North Lankershim Boulevard. As the increase in noise levels at all of the analyzed roadway segments would not exceed the applicable thresholds of either 3.0 dBA CNEL or 5.0 dBA CNEL, the noise increase would not be substantial. Therefore, the cumulative impact associated with mobile source noise would be less than significant.

Chapter 8
References

8.1 References Cited

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Nelson, P. M. 1987. *Transportation Noise Reference Book*. Butterworth & Co. (Publishers) Ltd. Cambridge, United Kingdom.

U.S. Environmental Protection Agency. 1977. Speech Levels in Various Noise Environments (EPA-6700/1-77-025). May.

8.2 Persons Consulted

Tabrizi, Kamran, Architect & Associates. Woodland Hills, CA. June 17, 2019—personal communication to Terrance Wong.

Appendix A

Noise Measurement Field Surveys

FIELD NOISE MEASUREMENT DATA

PROJECT: Lankershim Blvd project PROJ. # 00047.19

SITE IDENTIFICATION: LT1 OBSERVER(S): Jakob R.
ADDRESS: 7934 Lankershim Blvd. (east End) Terrance W.
START DATE / TIME: 6:00 Am 4/24/19 END DATE / TIME:

METEROLOGICAL CONDITIONS:

TEMP: ____ °F HUMIDITY: ____ %R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED: ____ MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: Pic. #4 TYPE: 1 (2) SERIAL #: 15032 00 14
CALIBRATOR: CAL 200 SERIAL #: 6645
CALIBRATION CHECK, BEFORE: 94.0 AFTER 94.4 WINDSCREEN X
SETTINGS: A-WEIGHTED (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER: ____

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min
	6.00 AM	9:15									

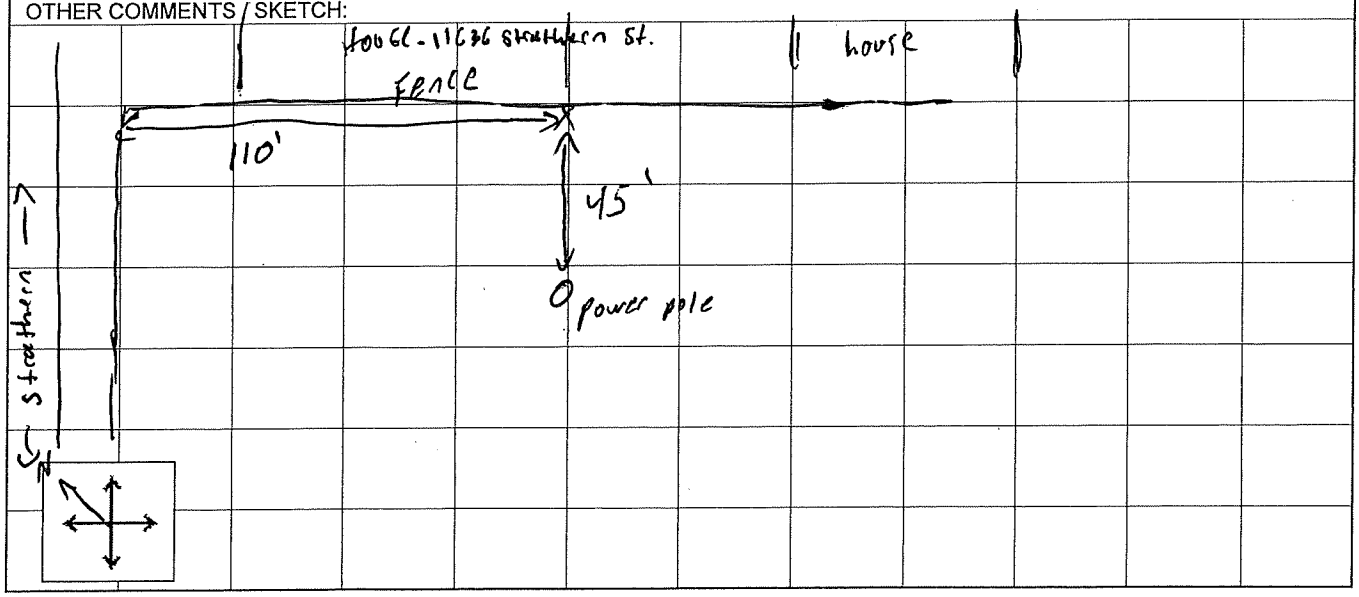
COMMENTS: Arrived 9:20 AM, Attached 9:30, cleared 9:40 Am
pick-up: 9:07 Arrival, Stopped: 9:15,

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL (AMBIENT) OTHER: ____
ROADWAY TYPE: ____
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. (BARKING DOGS) / (BIRDS) / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT MIXED FLAT OTHER: ____
PHOTOS: ____
OTHER COMMENTS / SKETCH:



Location LT1

Leq to CNEL Conversion

Start time (hour)	Leq dB(A)
0:00	50.9
1.00	49.4
2.00	48.1
3.00	48.3
4.00	51.3
5.00	53.2
6.00	57.3
7.00	57.2
8.00	56.9
9.00	55.8
10.00	54.1
11.00	54.0
12.00	54.7
13.00	54.8
14.00	54.6
15.00	57.3
16.00	55.9
17.00	55.2
18.00	55.1
19.00	56.2
20.00	56.8
21.00	55.9
22.00	56.6
23.00	52.0

Night Hrs

Evening Hrs

Daytime Hrs

24 hour cumulative value (CNEL)	**60.5**

FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. # 60047.19

IDENTIFICATION: LT 2 OBSERVER(S): Jakob R.

ADDRESS: 7934 Lankershim Blvd. (eastend) Terrance W.

START DATE / TIME: 9:09 AM - 4/24/19 END DATE / TIME:

METEROLOGICAL CONDITIONS:

TEMP: ____ °F HUMIDITY: ____ %R.H. WIND: CALM LIGHT MODERATE VARIABLE

WINDSPEED: ____ MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: PIC #5 TYPE: 1 (2) SERIAL #: 15032006

CALIBRATOR: CAL 200 SERIAL #: 6645

CALIBRATION CHECK, BEFORE: 94.0 AFTER 93.6 WINDSCREEN X

SETTINGS: A-WEIGHTED (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER: ____

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min
	9:09	9:27									

COMMENTS: Started: 9:09 Attached 9:57, cleared 10:00 Am

Pick up: Arrives: 9:24 am, Stopped: 9:27 Am

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER: ____

ROADWAY TYPE: ____

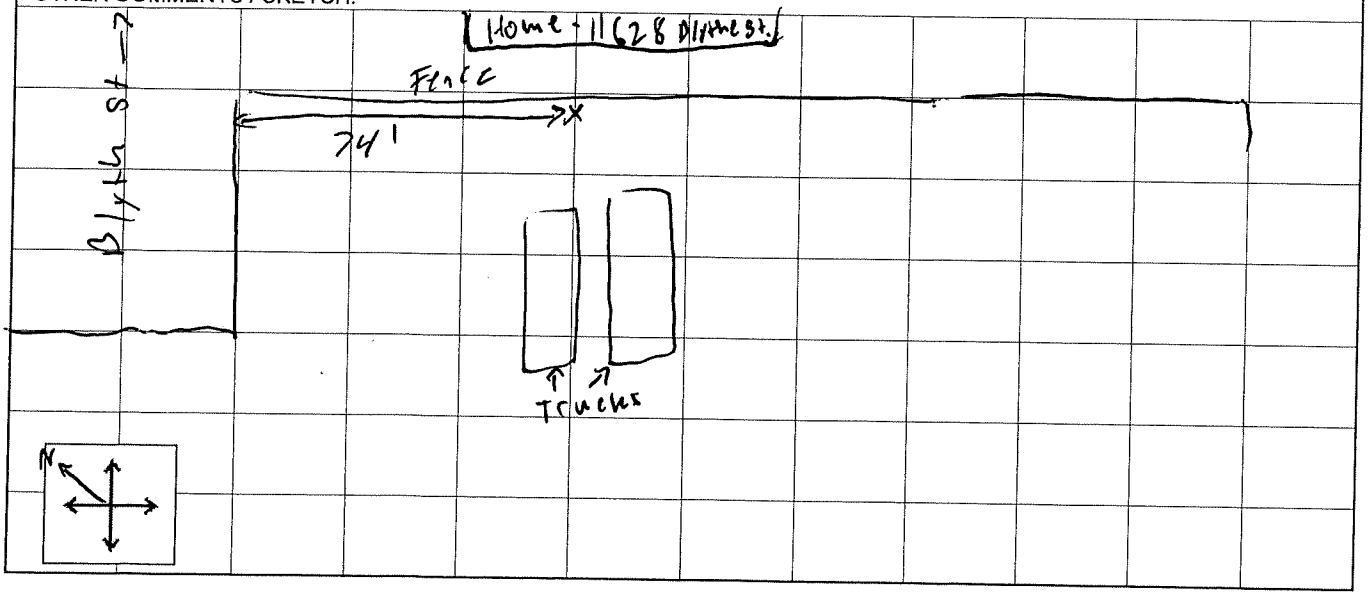
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: (HARD) SOFT MIXED FLAT OTHER: ____

PHOTOS: (Y)

OTHER COMMENTS / SKETCH:



Location LT2

Leq to CNEL Conversion

Start time (hour)	Leq dB(A)
0:00	46.2
1.00	42.0
2.00	42.4
3.00	43.2
4.00	45.3
5.00	44.5
6.00	44.8
7.00	45.1
8.00	49.2
9.00	47.8
10.00	48.5
11.00	52.1
12.00	50.1
13.00	45.3
14.00	44.1
15.00	50.2
16.00	45.9
17.00	46.0
18.00	44.9
19.00	47.5
20.00	49.9
21.00	47.4
22.00	49.7
23.00	42.7

Night Hrs

Evening Hrs

Daytime Hrs

24 hour cumulative value (CNEL) **52.7**

FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. # 00047.19

SITE IDENTIFICATION: ST1 OBSERVER(S): Jakob R. Terrance V.
ADDRESS: Near Strathern St. and Troost Ave
START DATE / TIME: 4/24/19 - 10:23 AM END DATE / TIME: 4/24/19 - 10:43 Am

METEROLOGICAL CONDITIONS:

TEMP: 73 °F HUMIDITY: 56 %R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED: 4-6 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: LD 831 TYPE: 1 2 SERIAL #: 3786
CALIBRATOR: CAL 200 SERIAL #: 6645
CALIBRATION CHECK, BEFORE: 114.6 AFTER 114.0 WINDSCREEN X
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min
.872	10:23 Am	10:43 Am	67.9	79.3	74.8	71.9	69.3	66.0	56.4	52.8	49.7

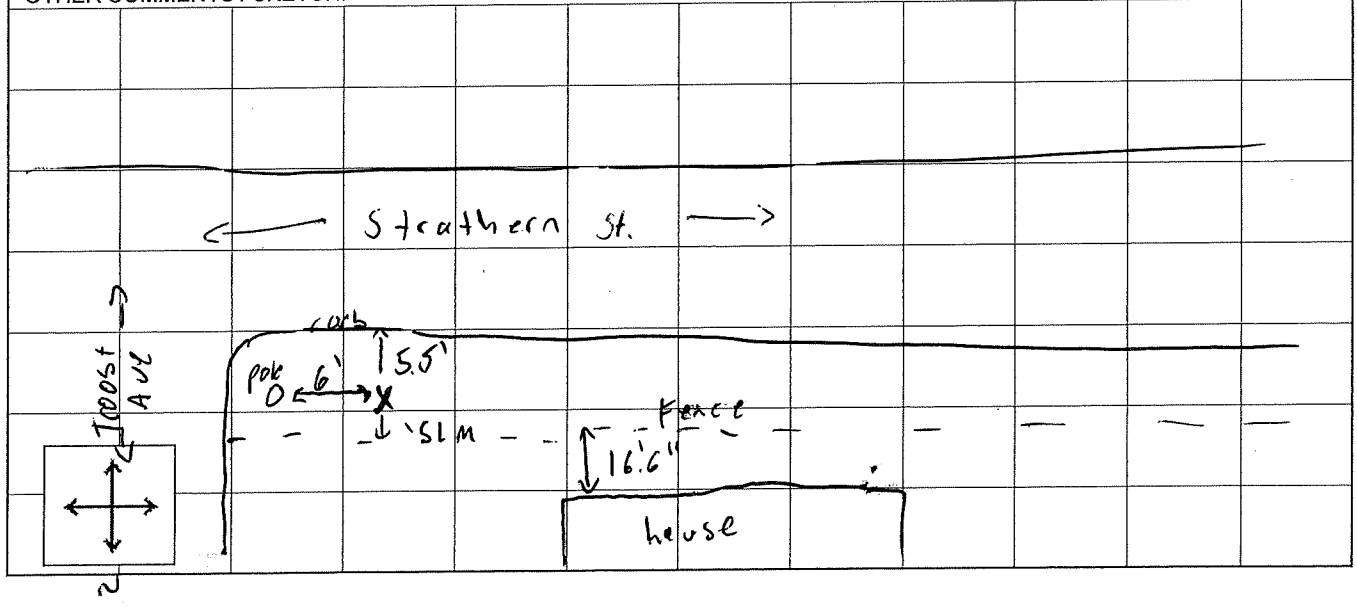
COMMENTS:

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER:
ROADWAY TYPE:
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. #

SITE IDENTIFICATION: ST2
ADDRESS: in front of 11713 Blythe St.
START DATE / TIME: 4/24/19 - 10:59 Am
OBSERVER(S): Jakob R., Terrance V.
END DATE / TIME: 4/24/19 - 11:19 Am

METEROLOGICAL CONDITIONS:
TEMP: 78 °F HUMIDITY: 48 %R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED: 5-7 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

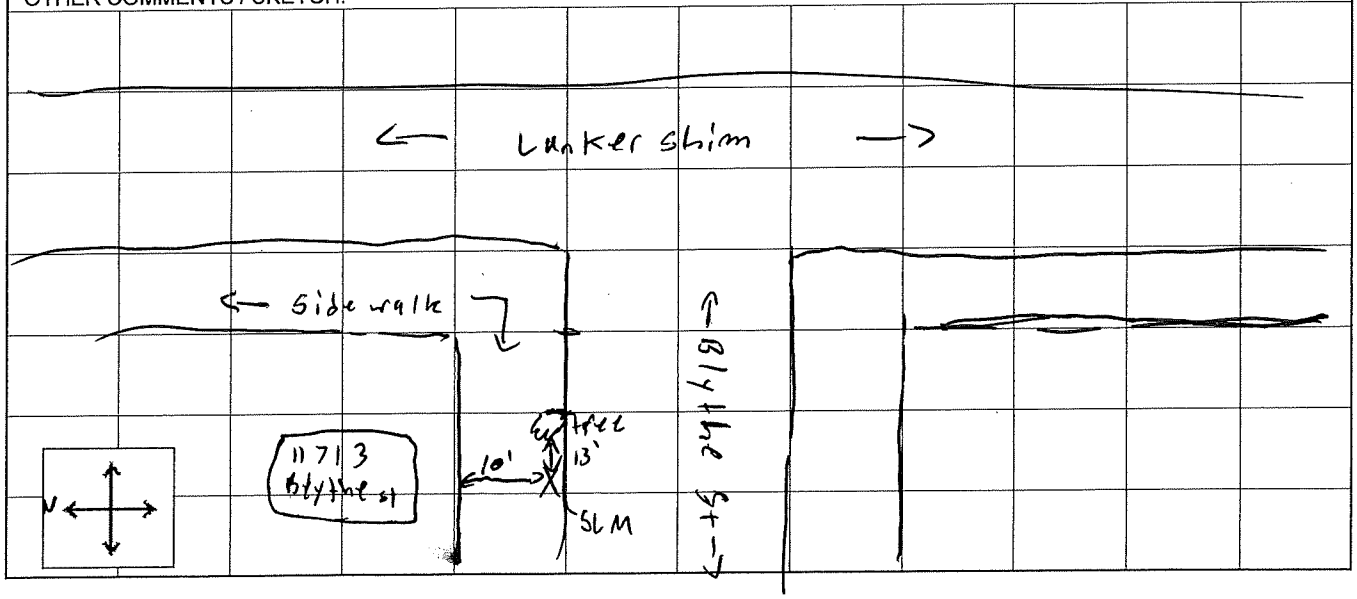
ACOUSTIC MEASUREMENTS:
INSTRUMENT: LD 831 TYPE: 1 2 SERIAL #: 3786
CALIBRATOR: CAL 200 SERIAL #: 6645
CALIBRATION CHECK, BEFORE: 114.0 AFTER 113.99 WINDSCREEN X
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min
.873	10:59 Am	11:19 Am	58.5	77.6	67.5	60.9	57.4	54.9	50.5	48.0	46.8

COMMENTS: paused out helicopter, paused out dogs barking

NOISE SOURCE INFO:
PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER:
ROADWAY TYPE:
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:
TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. # 000 47.19

SITE IDENTIFICATION: ST 3 OBSERVER(S): Jakob R.
ADDRESS: Beck Ave, South of Strathern (School)
START DATE / TIME: 4/26/19 - 10:38 Am END DATE / TIME: 4/26/19 - 10:58 Am

METEROLOGICAL CONDITIONS:
TEMP: 74 °F HUMIDITY: 54 %R.H. WIND: (CALM) LIGHT MODERATE VARIABLE
WINDSPEED: 3-4 MPH DIR: N NE (E) SE S SW W NW STEADY GUSTY
SKY: (SUNNY) (CLEAR) OVRCST PRTLY CLOUDY FOG RAIN OTHER:

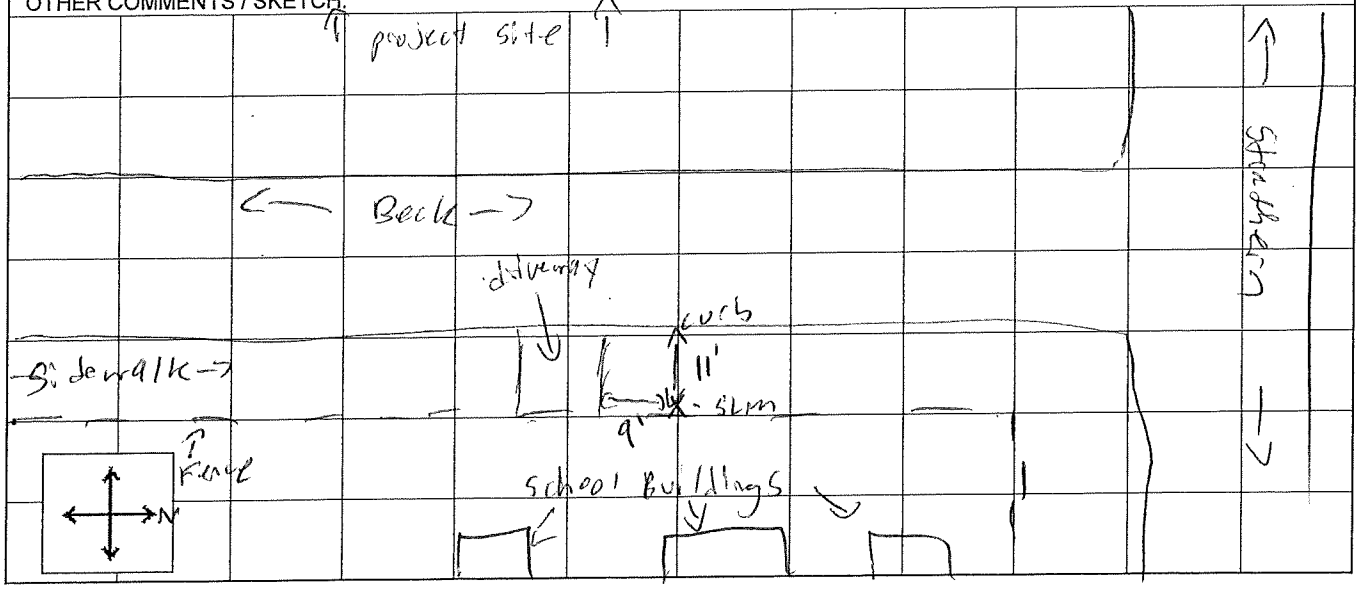
ACOUSTIC MEASUREMENTS:
INSTRUMENT: LD 831 TYPE: (1) 2 SERIAL #: 3786
CALIBRATOR: CAL 200 SERIAL #: 6695
CALIBRATION CHECK, BEFORE: 114.0 AFTER 113.98 WINDSCREEN X
SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min
877	10:38 Am	10:58 Am	55.2	67.0	61.9	57.7	55.4	53.7	51.0	49.5	48.0

COMMENTS: paused out passing airplane

NOISE SOURCE INFO:
PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL (AMBIENT) OTHER:
ROADWAY TYPE:
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / (BIRDS) / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:
TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. # 00047.19

SITE IDENTIFICATION: ST #4 OBSERVER(S): Jacob R.
ADDRESS: Near 7855 Armintal Terrance W.
START DATE / TIME: 4/24/19 - 11:57 Am END DATE / TIME: 4/24/19 - 12:17 Am

METEROLOGICAL CONDITIONS:
TEMP: 84 °F HUMIDITY: 39 %R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED: 0-1 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

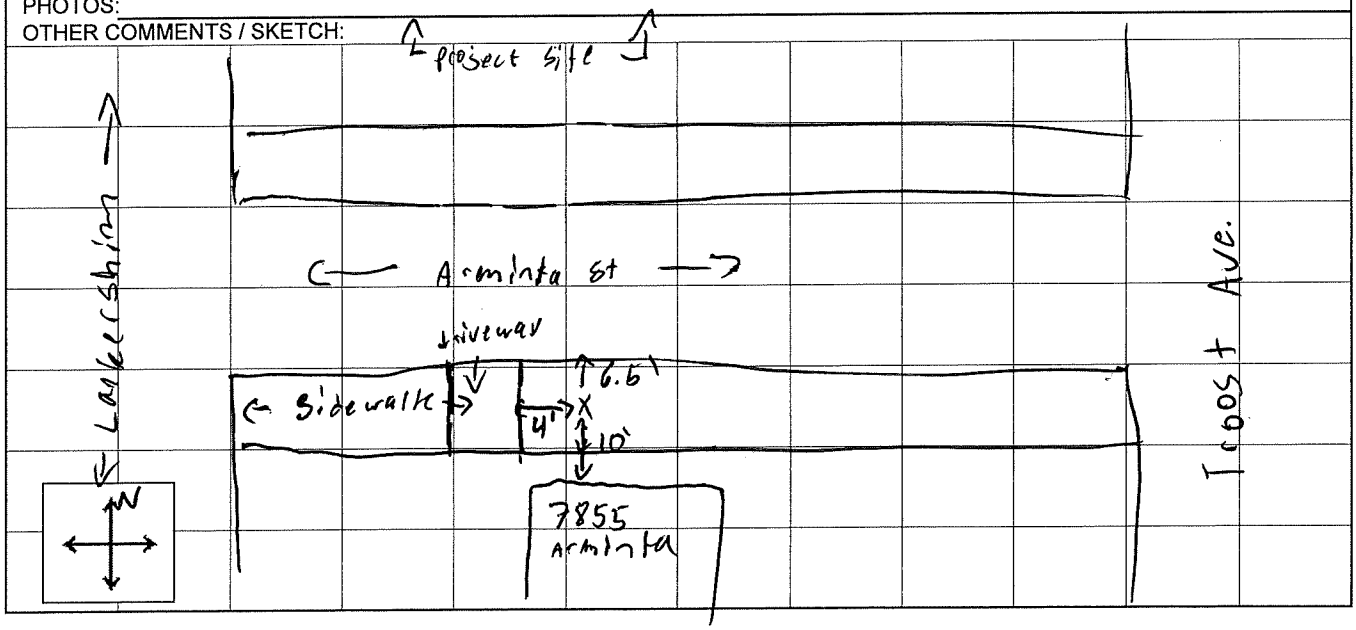
ACOUSTIC MEASUREMENTS:
INSTRUMENT: LD 831 TYPE: 1 2 SERIAL #: 3786
CALIBRATOR: CAL 200 SERIAL #: CC645
CALIBRATION CHECK, BEFORE: 114.0 AFTER 113.98 WINDSCREEN X
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	L 25	50	90	99	min
875	11:57 Am	12:17	57.7	70.6	64.0	60.2	57.7	56.4	54.4	53.4	52.9

COMMENTS:

NOISE SOURCE INFO:
PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER:
ROADWAY TYPE:
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:
TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. # 00047.19

SITE IDENTIFICATION: ST 4 OBSERVER(S): Jakob R.

ADDRESS: Arminta St. & East of Troost

START DATE / TIME: 4/26/19 - 9:58 AM END DATE / TIME: 4/26/19 - 10:18

METEROLOGICAL CONDITIONS:

TEMP: 76 °F HUMIDITY: 47 %R.H. WIND: CALM LIGHT MODERATE VARIABLE

WINDSPEED: 0-2 MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: LD 831 TYPE: 9 2 SERIAL #: 3786

CALIBRATOR: CAL 200 SERIAL #: C645

CALIBRATION CHECK, BEFORE: 114.0 AFTER 114.0 WINDSCREEN X

SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	L 1.67	8.33	25	50	90	99	min
876	9:58AM	10:18	52.2	65.4	59.5	54.6	52.1	50.4	48.4	46.9	46.1

COMMENTS: paused out vehicle backup signal

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER:

ROADWAY TYPE:

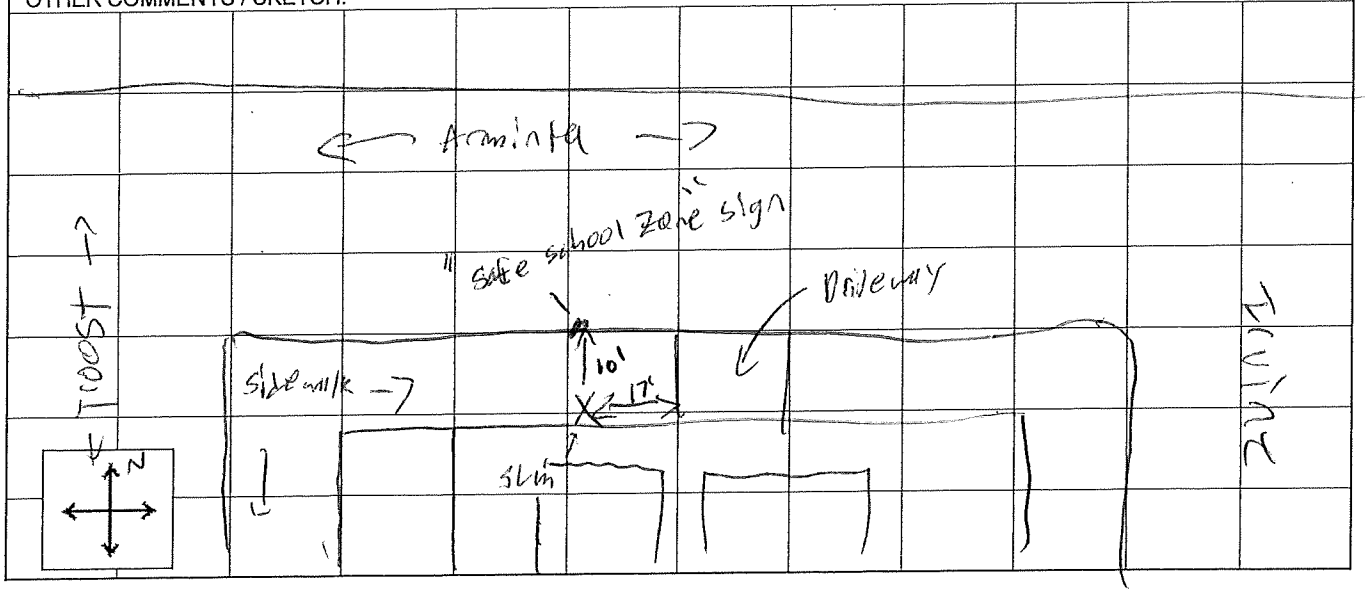
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT MIXED FLAT OTHER:

PHOTOS:

OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: 7940 Lankershim Blvd. Project PROJ. # 00047.19

SITE IDENTIFICATION: ST #5 OBSERVER(S): Jakob K.
Terrence V.
ADDRESS: Near village inn motel
START DATE / TIME: 11:29 Am - 4/24/19 END DATE / TIME: 4/24/19 - 11:49

METEROLOGICAL CONDITIONS:
TEMP: 70 °F HUMIDITY: 49 %R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED: 2-3 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

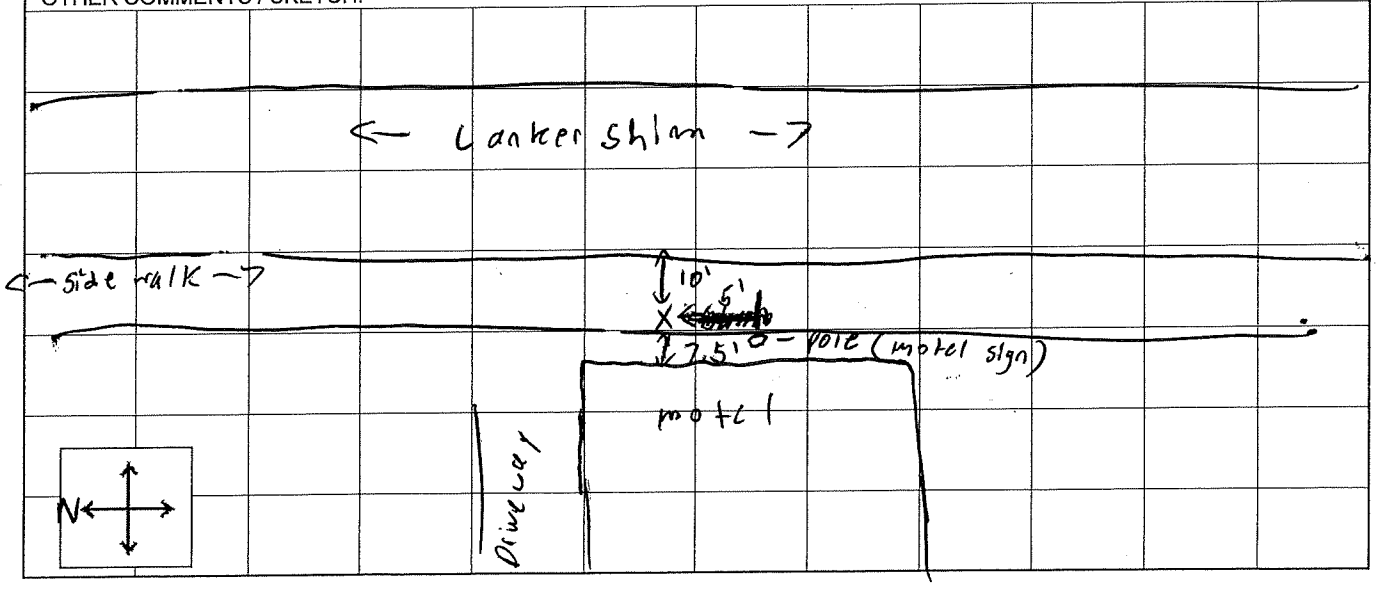
ACOUSTIC MEASUREMENTS:
INSTRUMENT: LD 831 TYPE: 1 2 SERIAL #: 3786
CALIBRATOR: SERIAL #: 6645
CALIBRATION CHECK, BEFORE: 114.0 AFTER 113.91 WINDSCREEN X
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	L 1.67	8.33	25	50	90	99	min
.874	11:29 Am	11:49	70.1	80.7	76.4	74.1	71.3	68.4	59.1	51.2	48.5

COMMENTS: paused out garbage truck. parked near SLM

NOISE SOURCE INFO:
PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER:
ROADWAY TYPE:
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:
TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



Appendix B

Construction, On-Site Operational, and Traffic Noise Levels

Construction Noise Levels

Construction Noise Analysis - Demolition

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA	Lmax, dBA
Item No.	Description								
18	Excavator	80.7	0.4	2	50	hard	0	80	81
13	Dozer	81.7	0.4	2	50	hard	0	81	82
48	Saw, Concrete	89.6	0.2	1	50	hard	0	83	90
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
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				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
	Combined Equipment							***86***	***90***

1. Obtained or estimated from:
   FHWA Roadway Construction Noise Model (RCNM), Version 1.1, December 8, 2008; and/or
   "Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
   "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Construction Noise Analysis - Site Preparation

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA	Lmax, dBA
Item No.	Description								
2	Backhoe	77.6	0.4	1	50	hard	0	74	78
29	Loader (Front End Loader)	79.1	0.4	1	50	hard	0	75	79
13	Dozer	81.7	0.4	1	50	hard	0	78	82
18	Excavator	80.7	0.4	1	50	hard	0	77	81
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
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				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
	Combined Equipment							***82***	***82***

1. Obtained or estimated from:
FHWA Roadway Construction Noise Model (RCNM), Version 1.1, December 8, 2008; and/or
"Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
"Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Construction Noise Analysis - Grading

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA	Lmax, dBA
Item No.	Description								
13	Dozer	81.7	0.4	1	50	hard	0	78	82
29	Loader (Front End Loader)	79.1	0.4	1	50	hard	0	75	79
2	Backhoe	77.6	0.4	1	50	hard	0	74	78
18	Excavator	80.7	0.4	1	50	hard	0	77	81
29	Loader (Front End Loader)	79.1	0.4	1	50	hard	0	75	79
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
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				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
	Combined Equipment							***83***	***82***

1. Obtained or estimated from:
   FHWA Roadway Construction Noise Model (RCNM), Version 1.1, December 8, 2008; and/or
   "Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
   "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Construction Noise Analysis - Building Construction

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA	Lmax, dBA
Item No.	Description								
12	Crane	80.6	0.16	1	50	hard	0	73	81
30	Man Lift	74.7	0.2	1	50	hard	0	68	75
29	Loader (Front End Loader)	79.1	0.4	1	50	hard	0	75	79
69	Welder/Torch	74	0.4	1	50	hard	0	70	74
20	Generator	80.6	0.5	1	50	hard	0	78	81
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
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				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
	Combined Equipment							***81***	***81***

1. Obtained or estimated from:
   FHWA Roadway Construction Noise Model (RCNM), Version 1.1, December 8, 2008; and/or
   "Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
   "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Construction Noise Analysis - Architectural Coating

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA	Lmax, dBA
Item No.	Description								
10	Compressor, Air	77.7	0.4	1	50	hard	0	74	78
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
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				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
	Combined Equipment							***74***	***78***

1. Obtained or estimated from:
   FHWA Roadway Construction Noise Model (RCNM), Version 1.1, December 8, 2008; and/or
   "Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
   "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Construction Noise Analysis - Paving

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA	Lmax, dBA
Item No.	Description								
34	Paver	77.2	0.5	1	50	hard	0	74	77
31	Mixer, Concrete (or concrete m	78.8	0.4	1	50	hard	0	75	79
44	Roller	80	0.2	1	50	hard	0	73	80
2	Backhoe	77.6	0.4	1	50	hard	0	74	78
34	Paver	77.2	0.5	1	50	hard	0	74	77
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
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				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
				1	50	hard	0		
	Combined Equipment							***81***	***80***

1. Obtained or estimated from:
   FHWA Roadway Construction Noise Model (RCNM), Version 1.1, December 8, 2008; and/or
   "Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
   "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Receptor	Receiver Type/Location	Construction Phase	Acoustical Average Distance	Ref. Noise Level @ 50ft. Leq(h), dBA	Dist. Excess Attenuation, dB	Barrier Attenuation, dB	nstruction Noise Le Leq, dBA	Highest Construction Noise Level (Leq, dBA) Without PDF-NOI-1	With PDF-NOI-1[a]	Applicable Noise Standard (Leq, dBA)[b]	Exceed Applicable Noise Standard?
1	SFR - North of project site, across Strathern St.	Demolition	348	86	0	0	69	70	70	75	No
		Site Prep & Grading	217	82	0	0	69				
		Grading	217	83	0	0	70				
		Building Construction	217	81	0	0	68				
		Architectural Coating	217	74	0	0	61				
		Paving	217	81	0	0	68				
2	SFR - Directly east of, and adjacent to, project site (north of Blythe St.)	Demolition	401	86	0	0	68	83	73	75	No
		Site Prep & Grading	50	82	0	0	82				
		Grading	50	83	0	0	83				
		Building Construction	50	81	0	0	81				
		Architectural Coating	50	74	0	0	74				
		Paving	50	81	0	0	81				
3	SFR - Directly east of, and adjacent to, project site (south of Blythe St.)	Demolition	530	86	0	0	65	82	72	75	No
		Site Prep & Grading	54	82	0	0	81				
		Grading	54	83	0	0	82				
		Building Construction	54	81	0	0	80				
		Architectural Coating	54	74	0	0	73				
		Paving	54	81	0	0	80				
4	SFR - Directly south of, and adjacent to, project site	Demolition	120	86	0	0	78	84	74	75	No
		Site Prep & Grading	47	82	0	0	83				
		Grading	47	83	0	0	84				
		Building Construction	47	81	0	0	82				
		Architectural Coating	47	74	0	0	75				
		Paving	47	81	0	0	82				
5	SFR - South of project site, across Arminta	Demolition	269	86	0	5	66	66	56	75	No
		Site Prep & Grading	374	82	0	5	60				
		Grading	374	83	0	5	61				
		Building Construction	374	81	0	5	59				
		Architectural Coating	374	74	0	5	52				
		Paving	374	81	0	5	59				
6	SFR - West of project site, across Lankershim Blvd.	Demolition	290	86	0	5	66	66	66	75	No
		Site Prep & Grading	400	82	0	5	59				
		Grading	400	83	0	5	60				
		Building Construction	400	81	0	5	58				
		Architectural Coating	400	74	0	5	51				
		Paving	400	81	0	5	58				
7	Village Inn Motel	Demolition	479	86	0	5	61	61	61	75	No
		Site Prep & Grading	688	82	0	5	54				
		Grading	688	83	0	5	55				
		Building Construction	688	81	0	5	53				
		Architectural Coating	688	74	0	5	46				
		Paving	688	81	0	5	53				
8	Arminta Street Elementary School	Demolition	1237	86	1	10	47	47	37	75	No
		Site Prep & Grading	964	82	0	10	46				
		Grading	964	83	0	10	47				
		Building Construction	964	81	0	10	45				
		Architectural Coating	964	74	0	10	38				
		Paving	964	81	0	10	45				

[a] Noise levels at off-site sensitive receptors with implementaiton of PDF-NOI-1 takes into consideration the noise attenuation provided by a 15-foot-high noise barrier along the eastern and southern Project Site boundary.

[b] Noise standard based on Sections 111.02 and 112.05 of the LAMC.

On-Site Operational Noise Levels

Residential Outdoor Amenity Areas

	Male	Female	Children
Voice Level	**(dBA Leq)[a]**	**(dBA Leq)[a]**	**(dBA Leq)[a]**
Casual	53	50	53
Normal	58	55	58
Raised	65	62	65
Loud	75	71	74
Shout	88	82	82

[a] Noise level measured at 1 meter

Source: Cyril M. Harris. 1998. *Handbook of Acoustical Measurements and Noise Control*, Third Edition. McGraw-Hill, Inc.
U.S. EPA. 1977. Speech Levels in Various Noise Environments (EPA-6700/1-77-025). May.

Project On-Site Noise Sources:

GAME LOUNGE

Total number of people: 4
Number of people talking simultaneously: 2

Receptor	Distance[a]	Source	Leq @ 1 meter (3.28 ft.), dBA	Number of Sources	Estimated Noise Level (dBA Leq) at 1 meter (3.23 ft.)
SFRs, south of site boundary	22	Male raised voice	65	1	65.00
		Female raised voice	62	1	62.00
SFRs, along eastern Project Site boudary and north of Blythe St.	151	Male raised voice	65	1	65.00
		Female raised voice	62	1	62.00

[a] The distance is from the acoustical average distance between the noise source and receptor.

POOL DECK & SPA

Total number of people: 15
Number of people talking simultaneously: 7.5

Receptor	Distance[a]	Source	Leq @ 1 meter (3.28 ft.), dBA	Number of Sources	Estimated Noise Level (dBA Leq) at 1 meter (3.23 ft.)
SFRs, south of site boundary	35	Male raised voice	65	4	70.74
		Female raised voice	62	4	67.74

SFRs, along eastern Project Site boudary and north of Blythe St.	132	Male raised voice	65	4	70.74
		Female raised voice	62	4	67.74

[a] The distance is from the acoustical average distance between the noise source and receptor.

OUTDOOR KITCHEN (Outdoor BBQ, Bar Counter & Sitting, Family Style Table)

Total number of people: 10

Number of people talking simultaneously: 5

Receptor	Distance[a]	Source	Leq @ 1 meter (3.28 ft.), dBA	Number of Sources	Estimated Noise Level (dBA Leq) at 1 meter (3.23 ft.)
SFRs, south of site boundary	28	Male normal voice	58	3	61.98
		Female normal voice	55	3	58.98
SFRs, along eastern Project Site boudary and north of Blythe St.	150	Male normal voice	58	3	61.98
		Female normal voice	55	3	58.98

[a] The distance is from the acoustical average distance between the noise source and receptor.

TOT LOT

Total number of people: 8

Number of people talking simultaneously: 4

Receptor	Distance[a]	Source	Leq @ 1 meter (3.28 ft.), dBA	Number of Sources	Estimated Noise Level (dBA Leq) at 1 meter (3.23 ft.)
SFRs, south of site boundary	68	Male raised voice	65	2	68.01
		Child raised voice	65	2	68.01
SFRs, along eastern Project Site boudary and north of Blythe St.	120	Male raised voice	65	2	68.01
		Child raised voice	65	2	68.01

[a] The distance is from the acoustical average distance between the noise source and receptor.

BBQ AND SITTING AREA

Total number of people: 8

Number of people talking simultaneously: 4

Receptor	Distance[a]	Source	Leq @ 1 meter (3.28 ft.), dBA	Number of Sources	Estimated Noise Level (dBA Leq) at 1 meter (3.23 ft.)
SFRs, south of site boundary	214	Male normal voice	58	2	61.01
		Female normal voice	55	2	58.01
SFRs, along eastern Project Site boudary and north of Blythe St.	23	Male normal voice	58	2	61.01
		Female normal voice	55	2	58.01

[a] The distance is from the acoustical average distance between the noise source and receptor.

Community Garden

Total number of people: 6

Number of people talking simultaneously: 3

Receptor	Distance[a]	Source	Leq @ 1 meter (3.28 ft.), dBA	Number of Sources	Estimated Noise Level (dBA Leq) at 1 meter (3.23 ft.)
SFRs, south of site boundary	260	Male normal voice	58	2	59.76
		Female normal voice	55	2	56.76
SFRs, along eastern Project Site boudary and north of Blythe St.	19	Male normal voice	58	2	59.76
		Female normal voice	55	2	56.76

[a] The distance is from the acoustical average distance between the noise source and receptor.

Combined Outdoor Noise Levels:

Receptor	Noise Level (dBA Leq)	Existing Daytime (7am - 9pm) Ambient Noise Level (dBA Leq)	Existing Ambient + Project (dBA Leq)	**Increase over Ambient (dBA Leq)**
SFRs, south of site boundary[a]	55	50	56	6
SFRs, along eastern Project Site boudary and north of Blythe St.	50	56	57	1

[a] Minimum daytime and nighttime ambient noise levels of 50 and 40 dBA Leq, respectively, in residential zone used if measured noise levels levels, in accordance with LAMC Section 111.03.

Pet Park:

Noise level (dBA Leq):	49.5
Reference distance (ft)	145

		Estimated Noise Level
Receptor	Distance[a]	(dBA Leq)
SFRs north of project site, across Strathern St.	170	48.12

[a] The distance is from the acoustical average distance between the noise source and receptor.

Parking Garage Noise Levels:

Leq(h) = SELref + 10log(N_A/1000) - 35.6

Leq(h) = hourly Leq noise level at 50 feet
SELref = reference noise levcel for stationary noise source represented in sound expsoure level (SEL) at 50 feet
NA = number of automobiles per hour

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual, September 2018. (Tables 4-13 & 4-14)

Strathern Street Driveway:

Main Driveway off Strathern St.		*Residential Entrance 1*		*Residential Entrance 2*	
SELref (dBA):	92	SELref (dBA):	92	SELref (dBA):	92
N_A:	128	N_A:	64	N_A:	64
Leq(h) @ 50ft.:	**47.5**	Leq(h) @ 50ft.:	**44.5**	Leq(h) @ 50ft.:	**44.5**

*Assumes that 75% of peak hour residential trips would access driveway off of Strathern Street, which would serve residential parking only.

North Lankershim Boulevard Driveway:

Commercial Entrance 1		*Commercial Entrance 2*		*Residential Entrance 3*	
SELref (dBA):	92	SELref (dBA):	92	SELref (dBA):	92
N_A:	55	N_A:	55	N_A:	43
Leq(h) @ 50ft.:	**43.8**	Leq(h) @ 50ft.:	**43.8**	Leq(h) @ 50ft.:	**42.7**

*Assumes all peak hour restaurant trips (54) and 75% of pharmacy trips (56) would be evenly distributed amongst the two commericial-only entrances into parking garage. Assumes 25% of residential trips would access entrance off of this driveway.

North Lankershim Boulevard Thru-Driveway:

SELref (dBA):	92
N_A:	18.5
Leq(h) @ 50ft.:	**39.1**

*Assumes that 25% of peak hour pharmacy trips would access drive thru off of Lankershim Blvd.

		Estimated Noise Levels (dBA Leq)	
Receptor	Distance[a]	Individual Sources	Composite
	320	27.66	
	210	31.32	
SFRs, south of site boundary	130	34.41	36.7
SFRs, along eastern Project Site boudary and north of Blythe St.	70	44.56	44.6

[a] Distance is from receptor to parking garage entrance location

Rooftop HVACs:

Single 3-ton HVAC unit:

	dBA
Sound Power:	77
Sound Pressure @ 50ft:	45

Project HVAC Unit Quanity:	216
Composite HVAC Noise:	68.3

	Distance (ft.)	Noise Attenuation[a]	Noise Level
SFR to the South	209.65	-10	45.89
SFR to the EastSFRs, along eastern Project Site boudary and north of Blythe St.	194.86	-10	46.53

[a] Accounts for noise attentuation from enclosure and parapet

Loading Area:

	dBA Leq	Distance (ft.)
Reference Noise Level:	61.8	66

SFR to the South	Distance (ft.)	Noise Attenuationa	Noise Level
SFRs, along eastern Project Site boudary and north of Blythe St.	320	-5	43.09
	220	-5	46.34

Composite Operational Noise Levels:

	Estimated Noise Level (dBA Leq)	
Noise Sources	**SFR to the east, north of Blythe St.**	**SFR to the south, adjacent to Project boundary**
Game Lounge	34	50
Pool Deck	40	52
Outdoor Kitchen	31	45
Tot Lot	40	45
BBQ & Sitting Area	46	26
Coomunity Garden	46	24
Pet Park		
Parking Structure	44	37
HVAC	47	46
Loading Area	46	43
Composite Operational Noise	53	56
Existing Daytime Ambient Noise[a]	56	50
Composite Operational + Ambient Noise	**58**	**57**
Increase over Ambient	2	7

[a] Minimum daytime ambient noise level of 50 dBA Leq in residential zone used if measured noise levels are below 50 dBA Leq, in accordance with LAMC Section 111.03.

Traffic Noise Levels

This spreadsheet calculates traffic noise levels based on TNM Version 2.5 Lookup Tables.

** Type in yellow cells only.

Traffic Data:

- (•) Enter ADT Traffic
- ( ) Enter Loudest-hour Traffic

Units:

- ( ) Metric
- (•) English

Calculate



Link	Roadway	Segment Location	Hard or Soft Ground (H or S)	Total Daily Traffic Volumes **(ADT)**	Traffic Mix: Number #	Traffic Mix: Description	Vehicle Speed mph max. 80	Sound Levels at Receiver Locations: Distance feet, min. 33 max. 1000	Sound Levels at Receiver Locations: dB CNEL
1	Strathern Street (Existing)	West of Laurel Canyon Blvd.	H	10,610	5	Generic - Average Roadway ("Vari	30	50	63.5
2	Strathern Street (Existing)	East of Laurel Canyon Blvd.	H	10,070	5	Generic - Average Roadway ("Vari	30	50	63.2
3	Strathern Street (Existing)	West of Lankershim Blvd.	H	9,070	5	Generic - Average Roadway ("Vari	30	50	62.8
4	Strathern Street (Existing)	East of Lankershim Blvd.	H	14,790	5	Generic - Average Roadway ("Vari	30	50	64.9
5	Strathern Street (Existing)	West of Tujunga Ave.	H	14,390	5	Generic - Average Roadway ("Vari	30	50	64.8
6	Strathern Street (Existing)	East of Tujunga Ave.	H	11,210	5	Generic - Average Roadway ("Vari	30	50	63.7
7	Strathern Street (Existing)	West of Vineland Ave.	H	10,060	5	Generic - Average Roadway ("Vari	30	50	63.2
8	Strathern Street (Existing)	East of Vineland Ave.	H	5,860	5	Generic - Average Roadway ("Vari	30	50	60.9
9	Stagg Street (Existing)	West of Lankershim Blvd.	H	2,160	4	Generic - Local (From Local/Lodi)	25	50	54.9
10	Stagg Street (Existing)	East of Lankershim Blvd.	H	1,670	4	Generic - Local (From Local/Lodi)	25	50	53.9
11	Saticoy Street (Existing)	West of Lankershim Blvd.	H	12,820	5	Generic - Average Roadway ("Vari	30	50	64.3
12	Saticoy Street (Existing)	East of Lankershim Blvd.	H	11,520	5	Generic - Average Roadway ("Vari	30	50	63.8
13	Saticoy Street (Existing)	West of Tujunga Ave.	H	10,420	5	Generic - Average Roadway ("Vari	30	50	63.4
14	Saticoy Street (Existing)	East of Tujunga Ave.	H	7,970	5	Generic - Average Roadway ("Vari	30	50	62.2
15	Roscoe Boulevard (Existing)	West of Webb Ave.	H	24,980	1	Generic - Arterial Roadways (Fron	35	50	68.4
16	Roscoe Boulevard (Existing)	East of Webb Ave.	H	23,120	1	Generic - Arterial Roadways (Fron	35	50	68.1
17	Laurel Canyon Boulevard (Existing)	North of Strathern St.	H	18,150	5	Generic - Average Roadway ("Vari	35	50	67.3
18	Laurel Canyon Boulevard (Existing)	South of Strathern St.	H	17,490	5	Generic - Average Roadway ("Vari	35	50	67.2
19	Webb Avenue (Existing)	North of Roscoe Blvd.	H	7,530	4	Generic - Local (From Local/Lodi)	25	50	60.1
20	Webb Avenue (Existing)	South of Roscoe Blvd.	H	10,510	4	Generic - Local (From Local/Lodi)	25	50	61.6
21	Webb Avenue (Existing)	North of Strathern St.	H	9,150	4	Generic - Local (From Local/Lodi)	25	50	61.0
22	Lankershim Boulevard (Existing)	South of Tuxford St.	H	20,830	1	Generic - Arterial Roadways (Fron	35	50	67.6
23	Lankershim Boulevard (Existing)	North of Strathern St.	H	19,660	1	Generic - Arterial Roadways (Fron	35	50	67.4

24	Lankershim Boulevard (Existing)	South of Strathern St.	H	21,010	1	Generic - Arterial Roadways (Fron	35	50	67.6
25	Lankershim Boulevard (Existing)	North of Stagg St.	H	21,790	1	Generic - Arterial Roadways (Fron	35	50	67.8
26	Lankershim Boulevard (Existing)	South of Stagg St.	H	21,780	1	Generic - Arterial Roadways (Fron	35	50	67.8
27	Lankershim Boulevard (Existing)	North of Saticoy St.	H	21,770	1	Generic - Arterial Roadways (Fron	35	50	67.8
28	Lankershim Boulevard (Existing)	South of Saticoy St.	H	21,870	1	Generic - Arterial Roadways (Fron	35	50	67.8
29	Tujunga Avenue (Existing)	South of Strathern St.	H	12,670	5	Generic - Average Roadway ("Vari	35	50	65.8
30	Tujunga Avenue (Existing)	North of Saticoy St.	H	13,180	5	Generic - Average Roadway ("Vari	35	50	66.0
31	Tujunga Avenue (Existing)	South of Saticoy St.	H	13,970	5	Generic - Average Roadway ("Vari	35	50	66.2
32	Vineland Avenue (Existing)	South of Strathern St.	H	21,970	5	Generic - Average Roadway ("Vari	35	50	68.2
33	Strathern Street (Existing with Project)	West of Laurel Canyon Blvd.	H	11,000	5	Generic - Average Roadway ("Vari	30	50	63.6
34	Strathern Street (Existing with Project)	East of Laurel Canyon Blvd.	H	10,790	5	Generic - Average Roadway ("Vari	30	50	63.5
35	Strathern Street (Existing with Project)	West of Lankershim Blvd.	H	9,780	5	Generic - Average Roadway ("Vari	30	50	63.1
36	Strathern Street (Existing with Project)	East of Lankershim Blvd.	H	15,740	5	Generic - Average Roadway ("Vari	30	50	65.2
37	Strathern Street (Existing with Project)	West of Tujunga Ave.	H	15,040	5	Generic - Average Roadway ("Vari	30	50	65.0
38	Strathern Street (Existing with Project)	East of Tujunga Ave.	H	11,670	5	Generic - Average Roadway ("Vari	30	50	63.9
39	Strathern Street (Existing with Project)	West of Vineland Ave.	H	10,510	5	Generic - Average Roadway ("Vari	30	50	63.4
40	Strathern Street (Existing with Project)	East of Vineland Ave.	H	6,130	5	Generic - Average Roadway ("Vari	30	50	61.1
41	Stagg Street (Existing with Project)	West of Lankershim Blvd.	H	2,450	4	Generic - Local (From Local/Lodi)	25	50	55.5
42	Stagg Street (Existing with Project)	East of Lankershim Blvd.	H	1,830	4	Generic - Local (From Local/Lodi)	25	50	54.3
43	Saticoy Street (Existing with Project)	West of Lankershim Blvd.	H	12,940	5	Generic - Average Roadway ("Vari	30	50	64.3
44	Saticoy Street (Existing with Project)	East of Lankershim Blvd.	H	11,610	5	Generic - Average Roadway ("Vari	30	50	63.9
45	Saticoy Street (Existing with Project)	West of Tujunga Ave.	H	10,500	5	Generic - Average Roadway ("Vari	30	50	63.4
46	Saticoy Street (Existing with Project)	East of Tujunga Ave.	H	8,100	5	Generic - Average Roadway ("Vari	30	50	62.3
47	Roscoe Boulevard (Existing with Project)	West of Webb Ave.	H	25,170	1	Generic - Arterial Roadways (Fron	35	50	68.4
48	Roscoe Boulevard (Existing with Project)	East of Webb Ave.	H	23,170	1	Generic - Arterial Roadways (Fron	35	50	68.1
49	Laurel Canyon Boulevard (Existing with Project)	North of Strathern St.	H	18,560	5	Generic - Average Roadway ("Vari	35	50	67.4
50	Laurel Canyon Boulevard (Existing with Project)	South of Strathern St.	H	17,910	5	Generic - Average Roadway ("Vari	35	50	67.3
51	Webb Avenue (Existing with Project)	North of Roscoe Blvd.	H	7,530	4	Generic - Local (From Local/Lodi)	25	50	60.1
52	Webb Avenue (Existing with Project)	South of Roscoe Blvd.	H	10,650	4	Generic - Local (From Local/Lodi)	25	50	61.6
53	Webb Avenue (Existing with Project)	North of Strathern St.	H	9,290	4	Generic - Local (From Local/Lodi)	25	50	61.0
54	Lankershim Boulevard (Existing with Project)	South of Tuxford St.	H	21,200	1	Generic - Arterial Roadways (Fron	35	50	67.7
55	Lankershim Boulevard (Existing with Project)	North of Strathern St.	H	20,030	1	Generic - Arterial Roadways (Fron	35	50	67.4
56	Lankershim Boulevard (Existing with Project)	South of Strathern St.	H	21,840	1	Generic - Arterial Roadways (Fron	35	50	67.8
57	Lankershim Boulevard (Existing with Project)	North of Stagg St.	H	22,870	1	Generic - Arterial Roadways (Fron	35	50	68.0
58	Lankershim Boulevard (Existing with Project)	South of Stagg St.	H	22,410	1	Generic - Arterial Roadways (Fron	35	50	67.9
59	Lankershim Boulevard (Existing with Project)	North of Saticoy St.	H	22,400	1	Generic - Arterial Roadways (Fron	35	50	67.9
60	Lankershim Boulevard (Existing with Project)	South of Saticoy St.	H	22,290	1	Generic - Arterial Roadways (Fron	35	50	67.9
61	Tujunga Avenue (Existing with Project)	South of Strathern St.	H	12,860	5	Generic - Average Roadway ("Vari	35	50	65.9
62	Tujunga Avenue (Existing with Project)	North of Saticoy St.	H	13,370	5	Generic - Average Roadway ("Vari	35	50	66.0
63	Tujunga Avenue (Existing with Project)	South of Saticoy St.	H	14,110	5	Generic - Average Roadway ("Vari	35	50	66.3
64	Vineland Avenue (Existing with Project)	South of Strathern St.	H	22,190	5	Generic - Average Roadway ("Vari	35	50	68.2
65	Strathern Street (Future without Project)	West of Laurel Canyon Blvd.	H	11,330	5	Generic - Average Roadway ("Vari	30	50	63.8
66	Strathern Street (Future without Project)	East of Laurel Canyon Blvd.	H	10,700	5	Generic - Average Roadway ("Vari	30	50	63.5

67	Strathern Street (Future without Project)	West of Lankershim Blvd.	H	9,670	5	Generic - Average Roadway ("Vari	30	50	63.1
68	Strathern Street (Future without Project)	East of Lankershim Blvd.	H	15,660	5	Generic - Average Roadway ("Vari	30	50	65.1
69	Strathern Street (Future without Project)	West of Tujunga Ave.	H	15,190	5	Generic - Average Roadway ("Vari	30	50	65.0
70	Strathern Street (Future without Project)	East of Tujunga Ave.	H	11,860	5	Generic - Average Roadway ("Vari	30	50	64.0
71	Strathern Street (Future without Project)	West of Vineland Ave.	H	10,630	5	Generic - Average Roadway ("Vari	30	50	63.5
72	Strathern Street (Future without Project)	East of Vineland Ave.	H	6,220	5	Generic - Average Roadway ("Vari	30	50	61.2
73	Stagg Street (Future without Project)	West of Lankershim Blvd.	H	2,340	4	Generic - Local (From Local/Lodi)	25	50	55.3
74	Stagg Street (Future without Project)	East of Lankershim Blvd.	H	1,800	4	Generic - Local (From Local/Lodi)	25	50	54.2
75	Saticoy Street (Future without Project)	West of Lankershim Blvd.	H	13,660	5	Generic - Average Roadway ("Vari	30	50	64.6
76	Saticoy Street (Future without Project)	East of Lankershim Blvd.	H	12,280	5	Generic - Average Roadway ("Vari	30	50	64.1
77	Saticoy Street (Future without Project)	West of Tujunga Ave.	H	11,120	5	Generic - Average Roadway ("Vari	30	50	63.7
78	Saticoy Street (Future without Project)	East of Tujunga Ave.	H	8,510	5	Generic - Average Roadway ("Vari	30	50	62.5
79	Roscoe Boulevard (Future without Project)	West of Webb Ave.	H	26,260	1	Generic - Arterial Roadways (Fron	35	50	68.6
80	Roscoe Boulevard (Future without Project)	East of Webb Ave.	H	24,310	1	Generic - Arterial Roadways (Fron	35	50	68.3
81	Laurel Canyon Boulevard (Future without Project)	North of Strathern St.	H	19,220	5	Generic - Average Roadway ("Vari	35	50	67.6
82	Laurel Canyon Boulevard (Future without Project)	South of Strathern St.	H	18,490	5	Generic - Average Roadway ("Vari	35	50	67.4
83	Webb Avenue (Future without Project)	North of Roscoe Blvd.	H	7,950	4	Generic - Local (From Local/Lodi)	25	50	60.4
84	Webb Avenue (Future without Project)	South of Roscoe Blvd.	H	11,080	4	Generic - Local (From Local/Lodi)	25	50	61.8
85	Webb Avenue (Future without Project)	North of Strathern St.	H	9,650	4	Generic - Local (From Local/Lodi)	25	50	61.2
86	Lankershim Boulevard (Future without Project)	South of Tuxford St.	H	22,250	1	Generic - Arterial Roadways (Fron	35	50	67.9
87	Lankershim Boulevard (Future without Project)	North of Strathern St.	H	21,050	1	Generic - Arterial Roadways (Fron	35	50	67.7
88	Lankershim Boulevard (Future without Project)	South of Strathern St.	H	22,510	1	Generic - Arterial Roadways (Fron	35	50	67.9
89	Lankershim Boulevard (Future without Project)	North of Stagg St.	H	23,320	1	Generic - Arterial Roadways (Fron	35	50	68.1
90	Lankershim Boulevard (Future without Project)	South of Stagg St.	H	23,420	1	Generic - Arterial Roadways (Fron	35	50	68.1
91	Lankershim Boulevard (Future without Project)	North of Saticoy St.	H	23,370	1	Generic - Arterial Roadways (Fron	35	50	68.1
92	Lankershim Boulevard (Future without Project)	South of Saticoy St.	H	23,430	1	Generic - Arterial Roadways (Fron	35	50	68.1
93	Tujunga Avenue (Future without Project)	South of Strathern St.	H	13,320	5	Generic - Average Roadway ("Vari	35	50	66.0
94	Tujunga Avenue (Future without Project)	North of Saticoy St.	H	13,840	5	Generic - Average Roadway ("Vari	35	50	66.2
95	Tujunga Avenue (Future without Project)	South of Saticoy St.	H	14,710	5	Generic - Average Roadway ("Vari	35	50	66.4
96	Vineland Avenue (Future without Project)	South of Strathern St.	H	23,370	5	Generic - Average Roadway ("Vari	35	50	68.4
97	Strathern Street (Future with Project)	West of Laurel Canyon Blvd.	H	11,720	5	Generic - Average Roadway ("Vari	30	50	63.9
98	Strathern Street (Future with Project)	East of Laurel Canyon Blvd.	H	11,420	5	Generic - Average Roadway ("Vari	30	50	63.8
99	Strathern Street (Future with Project)	West of Lankershim Blvd.	H	10,380	5	Generic - Average Roadway ("Vari	30	50	63.4
100	Strathern Street (Future with Project)	East of Lankershim Blvd.	H	16,610	5	Generic - Average Roadway ("Vari	30	50	65.4
101	Strathern Street (Future with Project)	West of Tujunga Ave.	H	15,840	5	Generic - Average Roadway ("Vari	30	50	65.2
102	Strathern Street (Future with Project)	East of Tujunga Ave.	H	12,320	5	Generic - Average Roadway ("Vari	30	50	64.1
103	Strathern Street (Future with Project)	West of Vineland Ave.	H	11,080	5	Generic - Average Roadway ("Vari	30	50	63.7
104	Strathern Street (Future with Project)	East of Vineland Ave.	H	6,490	5	Generic - Average Roadway ("Vari	30	50	61.4
105	Stagg Street (Future with Project)	West of Lankershim Blvd.	H	2,630	4	Generic - Local (From Local/Lodi)	25	50	55.7
106	Stagg Street (Future with Project)	East of Lankershim Blvd.	H	1,960	4	Generic - Local (From Local/Lodi)	25	50	54.6
107	Saticoy Street (Future with Project)	West of Lankershim Blvd.	H	13,780	5	Generic - Average Roadway ("Vari	30	50	64.6
108	Saticoy Street (Future with Project)	East of Lankershim Blvd.	H	12,370	5	Generic - Average Roadway ("Vari	30	50	64.1
109	Saticoy Street (Future with Project)	West of Tujunga Ave.	H	11,200	5	Generic - Average Roadway ("Vari	30	50	63.7

110	Saticoy Street (Future with Project)	East of Tujunga Ave.	H	8,640	5	Generic - Average Roadway ("Vari	30	50	62.6
111	Roscoe Boulevard (Future with Project)	West of Webb Ave.	H	26,450	1	Generic - Arterial Roadways (Fron	35	50	68.6
112	Roscoe Boulevard (Future with Project)	East of Webb Ave.	H	24,360	1	Generic - Arterial Roadways (Fron	35	50	68.3
113	Laurel Canyon Boulevard (Future with Project)	North of Strathern St.	H	19,630	5	Generic - Average Roadway ("Vari	35	50	67.7
114	Laurel Canyon Boulevard (Future with Project)	South of Strathern St.	H	18,910	5	Generic - Average Roadway ("Vari	35	50	67.5
115	Webb Avenue (Future with Project)	North of Roscoe Blvd.	H	7,950	4	Generic - Local (From Local/Lodi)	25	50	60.4
116	Webb Avenue (Future with Project)	South of Roscoe Blvd.	H	11,220	4	Generic - Local (From Local/Lodi)	25	50	61.8
117	Webb Avenue (Future with Project)	North of Strathern St.	H	9,790	4	Generic - Local (From Local/Lodi)	25	50	61.2
118	Lankershim Boulevard (Future with Project)	South of Tuxford St.	H	22,620	1	Generic - Arterial Roadways (Fron	35	50	68.0
119	Lankershim Boulevard (Future with Project)	North of Strathern St.	H	21,420	1	Generic - Arterial Roadways (Fron	35	50	67.7
120	Lankershim Boulevard (Future with Project)	South of Strathern St.	H	23,340	1	Generic - Arterial Roadways (Fron	35	50	68.1
121	Lankershim Boulevard (Future with Project)	North of Stagg St.	H	24,400	1	Generic - Arterial Roadways (Fron	35	50	68.3
122	Lankershim Boulevard (Future with Project)	South of Stagg St.	H	24,050	1	Generic - Arterial Roadways (Fron	35	50	68.2
123	Lankershim Boulevard (Future with Project)	North of Saticoy St.	H	24,000	1	Generic - Arterial Roadways (Fron	35	50	68.2
124	Lankershim Boulevard (Future with Project)	South of Saticoy St.	H	23,850	1	Generic - Arterial Roadways (Fron	35	50	68.2
125	Tujunga Avenue (Future with Project)	South of Strathern St.	H	13,510	5	Generic - Average Roadway ("Vari	35	50	66.1
126	Tujunga Avenue (Future with Project)	North of Saticoy St.	H	14,030	5	Generic - Average Roadway ("Vari	35	50	66.2
127	Tujunga Avenue (Future with Project)	South of Saticoy St.	H	14,850	5	Generic - Average Roadway ("Vari	35	50	66.5
128	Vineland Avenue (Future with Project)	South of Strathern St.	H	23,590	5	Generic - Average Roadway ("Vari	35	50	68.5
129	Construction - Grading	All segments	H	347	13	Construction Traffic - Grading	30	50	59.0
130	Construction - Building	All segments	H	100	14	Construction Traffic - Building	35	50	49.1

Appendix C
Construction Vibration Levels

Construction Vibration Analysis - Potential Building Damage

Vibration attenuation constant (n):		1.1						
		Building Category:	**Extremely fragile historic buildings, ruins, ancient monuments**	**Fragile buildings**	**Historic and some old buildings**	**Older residential structures**	**New residential structures**	**Modern industrial/ commercial buildings**
Equipment Item	**Reference PPV at 25 feet, in/s [a]**	**Vibration Damage Impact Criteria, PPV, in/s:**	**0.08**	**0.1**	**0.25**	**0.3**	**0.5**	**0.5**
Large bulldozer[b]	0.089	Distance to Impact Criteria, feet:	28	23	10	9	6	6
Small bulldozer[c]	0.003		2	2	1	1	1	1

[a] Obtained from "Transportation and Construction Vibration Guidance Manual", Caltrans 2013

[b] Considered representative of other heavy earthmoving equipment such as excavators, graders, backhoes, etc.

[c] Considered representative of smaller equipment such as mini excavators.

Construction Vibration Analysis - Human Response, Distance to Criteria

Vibration attenuation constant (n):		1.1				
		Perceptibility:	**Barely perceptible**	**Distinctly perceptible**	**Strongly perceptible**	**Severe**
Equipment Item	**Reference PPV at 25 feet, in/s [a]**	**Vibration Damage Impact Criteria, PPV, in/s:**	**0.01**	**0.04**	**0.1**	**0.4**
Large bulldozer[b]	0.089	Distance to Impact Criteria, feet:	183	52	23	7
Small bulldozer[c]	0.003		9	3	2	1

[a] Obtained from "Transportation and Construction Vibration Guidance Manual", Caltrans 2013

[b] Considered representative of any full size/large excavator, dozer, backhoe, etc.

[c] Considered representative of any small excavator, dozer, backhoe, etc.

Construction Vibration Analysis

Receiver	Distance	Large Mobile [1]			Small Mobile [2]		
		Predicted PPV, in/sec	Building Damage?	Human Response	Predicted PPV, in/sec	Building Damage?	Human Response
Reference Location	*25*	*0.089*	*N/A (for reference only)*	*N/A (for reference only)*	*0.003*	*N/A (for reference only)*	*N/A (for reference only)*
Fast food restaurant (Burger King)	50	0.042	No	Distinctly perceptible	0.001	No	Below barely perceptible
SFR - Directly east of, and adjacent to, project site (north of Blythe St.)	10	0.244	No	Strongly perceptible	0.008	No	Below barely perceptible
SFR - Directly east of, and adjacent to, project site (south of Blythe St.)	10	0.244	No	Strongly perceptible	0.008	No	Below barely perceptible
SFR - Directly south of, and adjacent to, project site	10	0.244	No	Strongly perceptible	0.008	No	Below barely perceptible
Automotive repair shop (Schiro's Collision Repairs)	10	0.244	No	Strongly perceptible	0.008	No	Below barely perceptible

[1] Considered representative of any full size/large excavator, dozer, backhoe, etc.
[2] Considered representative of any small excavator, dozer, backhoe, etc.

Appendix I
Population and Housing Worksheets

		2012	Projected 2020	2020-2012	Inc/Year		2018	Projected 2040	2040-2018	Inc/Year		Interp 2023	2023-2018	% Inc 2018 to 2023	Projected 2040	2040-2018	% Inc 2018 to 2040
	Pop																
LA		3,845,500	4,017,000	171500	21437.5		4059665	4609400	549,735	24988		4184605	124940	3.1%	4,609,400	549,735	13.5%
	Housing																
LA		1,325,500	1,441,400	115900	14487.5		1382970	1690300	307330	13970		1452818	69848	5.1%	1,690,300	307330	22.2%
	Emp					**2017**											
LA		1,696,400	1,899,500	203100	25387.5	2E+06	1872456	2169100	310128	13484		1939875	67419.13043	3.6%	2,169,100	296644	15.8%

PROJECT INCREASE W/IN CITY

POPULATION	Project Increase	SCAG Projected Growth	Project % of Growth
2018-2023	1050	124940	0.8%
2018-2040	1049.76	549735	0.2%
HOUSEHOLDS	Project Increase	SCAG Projected Growth	Project % of Growth
2018-2023	432	69848	0.6%
2018-2040	432	307330	0.1%

EMPLOYMENT	Project Increase	SCAG Projected Growth	Project % of Growth
2018-2023	33	67419	0.05%
2018-2040	33	296644	0.01%

CUMULATIVE INCREASES

POPULATION	Cumulative + Project	SCAG Projected Growth	Project % of Growth
2018-2023	1,925	124940	1.54%
2018-2040	1,925	549735	0.35%

HOUSEHOLDS	Project Increase	SCAG Projected Growth	Project % of Growth
2018-2023	792	69848	1.13%
2018-2040	792	307330	0.26%

EMPLOYMENT	Project Increase	SCAG Projected Growth	Project % of Growth
2018-2023	584	67419	0.87%
2018-2040	584	296644	0.20%

Project Generation

Housing Units	**Avg Household Size**	**Total Population**
432	2.43	1050

Employees	**Amount**	**Generation Factor (per s**	**Number of Employees**
Ground-floor Restaurant	8,000	0.00271	22
Pharmacy	14,000	0.00271	38
Proposed Subtotal			**60**
Existing			
Office	1600	0.00269	5
Retail	7,830	0.00271	22
Existing Subtotal			**27**
		NET EMP	33

CUMULATIVE	Related	Project	Both	Cumulative percentage of growth 2018-2040
Population	875	1050	1,925	0.4%
Housing	360	432	792	0.3%
Emp	551	33	584	0.2%

Jobs/Housing Ratio

	City	Project	City+Project	Cumulative+Project	C+P+City
2018	1.3539	0.0764	1.3535		
2023	1.3353		1.3349		
2040	1.2833		1.2830	0.737373737	1.283007666

RELATED PROJECTS

No.	Project	Address	Description	Size	Estimated Population	Estimated Employment	Housing Units	Generation Factor
1.	Mixed-Use	7634 Vineland Ave	10,750 sf retail, 11,950 sf office					
			Retail	10,750		16		0.00153
			Office	11,950		57		0.00479
2.	Chevron Gas Station	7955 Laurel Canyon Bl	4,500 sf retail	4,500		7		0.00153
3.	Residential Project	7660 Lankershim Bl	65 apartment units, 99 condominium units					
			Apartment Units	65	158		65	2.43
			Condominium Units	99	241		99	2.43
4.	Mixed-Use	7401 N Lankershim Bl	Apartment units/Retail					
			108 apartment units	108	262		108	2.43
			2,370 sf retail	2,370		4		0.00153
5.	CD02 Sherman Way Navigation Center	11839 W Sherman Way	Homeless Services Center	6,644		32		0.00479
6.	LAUSD VRE School #7	11967 Saticoy St	800 seats K-5 school	800		74		0.092
7.	Community Recycling & Resource Recovery	9189 De Garmo Avenue	Recycling facility expansion to increase processing capacity	267,995		362		0.00135
8.	Apartment	11957 W Allegheny Street	88 apartment units	88	214		88	2.43
TOTALS					**875**	**551**	**360**	
PROJECT					**1050**	**33**	**432**	
GRAND TOTALS					**1925**	**584**	**792**	

Notes

[a] Related project information provided by the Los Angeles Department of Transportation in December 2018, Department of City Planning, and recent traffic studies prepared in the area.

Appendix J
Public Services

LOS ANGELES POLICE DEPARTMENT

MICHEL R. MOORE
Chief of Police

ERIC GARCETTI
Mayor

P. O. Box 30158
Los Angeles, CA 90030
Telephone: (213) 486-6000
TDD: (877) 275-5273
Ref #:14.7

July 23, 2019

Ms. Jessie Barkley
Managing Director
ICF
555 West 5th Street, Suite 3100
Los Angeles, California 90013

Dear Ms. Barkley:

The proposed 7940 Lankershim Boulevard Project falls within the geographical boundaries of the Los Angeles Police Department's Foothill Area. A project of this size could have a minor impact on police services in the Foothill Area. The Department is available to advise you on crime prevention features appropriate for the design of the property in this project. The Department strongly recommends that the developers contact Community Outreach and Development Division, Crime Prevention Through Environmental Design, Officer Christopher Gibson, at (213) 486-6000.

Upon completion of the project, you are encouraged to provide the Foothill Area Commanding Officer with a diagram of each portion of the property. The diagram should include access routes and any additional information that might facilitate police response.

Should you have any questions, please contact Officer Christopher Gibson, Community Outreach and Development Division, at (213) 486-6000.

Very truly yours,

MICHEL R. MOORE
Chief of Police

AARON C. PONCE, Captain
Commanding Officer
Community Outreach and Development Division

Enclosure

The proposed 7940 Lankershim Boulevard Project will be under the jurisdiction of Foothill Community Police Station, located at 12760 Osborne Street, Pacoima, CA 90014. Telephone Number (818) 756-8861.

The project site is approximately 3.3 miles and 9 minutes without traffic from the Police Station in Reporting District (RD) 1685.

Foothill Geographic Area is approximately 46 square miles and consists of 59 Reporting Districts. The service boundaries for Foothill Area are as follows: Los Angeles City boundary to the North, Saticoy Street, Cohasset Street to the South, Lowell Avenue to the East, and the Hollywood Freeway to the West.

It has approximately 330 sworn personnel and 30 civilian support staff assigned. It is a culturally diverse community with a population of approximately 182,000 people. The officer to resident ratio is; 1 officer to 545 residents in Foothill Area. Additionally, there are special service teams available within the LAPD to service Foothill Area.

Foothill Station's emergency response system is directly linked to the Los Angeles Police Department Communications Division's Dispatch Centers. Communications Division has the responsibility to staff and answer, on a 24-hour basis, the telephones upon which calls for service are received. This includes 911 emergency calls (police, fire, and paramedic). Communication Division handles only police related calls for the City.

The average response time to emergency calls for service in Foothill Area during 2018 was 5.3 minutes. The average response time for non-emergency calls for service in Foothill Area during 2018 was 31.4 minutes.

Crime Statistics for all Foothill Area:

CRIMES	YTD 2018	YTD 2017	YDT 2016
HOMICIDE	9	7	10
RAPE	38	45	52
ROBBERY	244	264	244
AGGRAVATED ASSAULT	517	580	578
BURGLARY	535	553	533
MOTOR VEHICLE THEFT	898	891	823
BURGLARTY FROM MOTOR VEHICLE	1195	1122	1151
PERSONAL/OTHER THEFT	780	796	802

Prepared by:

Officer Christopher Gibson
Community Outreach and Development Division
213 486-6000

7940 Lankershim
Request for Information
Los Angeles Public Library Response
August 30, 2019

1. Based on information available on the LAPL website, three libraries located in the vicinity within three miles of the Project site that would provide library services to the Project site include the Panorama City Branch; Sun Valley Library and Valley Plaza Library. Please confirm.

   Answer:

   The following Los Angeles Public Library locations would serve the project area:

   Sun Valley Branch Library

   Valley Plaza Branch Library

2. Please provide facility information for each LAPL library serving the Project site, including

   Answer:

   See attached locations profiles.

3. Size of library buildings (square footage);

   Answer:

   See attached locations profiles.

4. Personnel (paid employees and volunteers);

   Answer:

   See attached locations profiles.

5. Collection size and amenities;

   Answer:

   See attached locations profiles.

6. Programmed or target service population (please indicate the basis for the population);

   Answer:

   See attached locations profiles.

7. Actual population served;

   Answer:

   See attached locations profiles.

8. Planned, funded, and/or scheduled service improvements, construction or expansions to City library facilities that would serve the Project site;

   Answer:

   There are currently no plans of physical improvements involving construction or expansion to any facilities in the project area.

9. Please confirm LAPL's standards and goals used to assess the adequacy of library facilities and potential impacts from Project development.

   Answer:

   On February 8, 2007, The Board of Library Commissioners approved a new Branch Facilities Plan. This Plan includes criteria for new Libraries, which recommends new size standards for the provision of LAPL facilities – 12,500 s.f. for community with less than 45,000 population and 14,500 s.f. for community with more than 45,000 population and up to 20,000 s.f. for a Regional branch. It also recommends that when a community reaches a population of 90,000, an additional branch library should be considered for the area.

   Any increase in the residential and/or commuter-adjusted population that is in close proximity to a library has a direct impact on library services with increased demands for library staffing, materials, computers, and information services. Therefore, mitigation measures may be necessary in order to lessen the impact to these services to a level that is appropriate for a given service population in accordance to the February 8, 2007 Board of Library Commissioners approved Branch Facilities Plan.

   The Los Angeles Public Library recommends a mitigation fee of $200 per capita based upon the projected population of the development. The funds will be used for staff, books, computers and other library materials. It is recommended that mitigation fees be paid for by the developer.

Branch Name

Sun Valley Branch Library

Address

7935 Vineland Avenue Sun Valley, CA 91352

Hours

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: Closed

Size of Facility (sq. ft.)

12,500

Collection Size

50,221

Annual Circulation

258,708

Staffing Level

9

Volunteers

31

Service Population
Estimated from LA Times Mapping L.A. database and branch library community boundaries
74,185

The Los Angeles Public Library does not make future population projections.

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.
All branch libraries have:
Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer
This branch also has:
Early Learning for Families Area
Kill-A-Watt
Language Collection: Spanish
Meeting Room Rental

Los Angeles Public Library
Location Information for EIR/ Request for Information

Branch Name

Valley Plaza

Address

12311 Vanowen Street North Hollywood, CA 91605

Hours

Mon: 10-8, Tue: 12-8, Wed: 10-8, Thu: 12-8, Fri: 9:30-5:30 Sat: 9:30-5:30, Sun: Closed

Size of Facility (sq. ft.)

10,500

Collection Size

42,950

Annual Circulation

100,746

Staffing Level

10

Volunteers

110

Service Population
Estimated from LA Times Mapping L.A. database and branch library community boundaries
61,928

The Los Angeles Public Library does not make future population projections.

Special Features

All branch libraries provide free access to computer workstations which are connected to the Library's information network. In addition to providing Internet access, these workstations enable the public to search LAPL's many electronic resources including the online catalog, subscription databases, word processing, language learning, literacy and a large historic document and photograph collection.
All branch libraries have:
Free Public Wi-Fi
Wireless & Mobile Printing
Reserve a Computer
This branch also has:
Electric Vehicle Charging Stations
Friends of Library Group
Kill-A-Watt
Language Collection: Armenian
Language Collection: Spanish
Meeting Room Rental
Scanner
Student Zone

DEPARTMENT OF RECREATION AND PARKS

BOARD OF COMMISSIONERS

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CATHIE SANTO DOMINGO
ACTING ASSISTANT GENERAL MANAGER

(213) 202-2633, FAX (213) 202-2614

July 31, 2019

ICF
Jessie Barkley, Managing Director
555 W. 5th Street, Suite 3100
Los Angeles, CA 90013

REQUEST FOR INFORMATION REGARDING PARKS AND RECREATIONAL SERVICES AND FACILITIES FOR THE 7940 LANKERSHIM BOULEVARD PROJECT

Dear Ms. Barkley:

The following information has been prepared in response to your request for Recreation and Parks information relative to the proposed 7940 Lankershim Boulevard project. This proposed project is described as a mixed-use development with 432 residential dwelling units, 22,000 square feet of commercial space, and associated parking located at 7918-7946 North Lankershim Boulevard and 11650-11664 Strathern Street within the Sun Valley-La Tuna Canyon Community Plan Area.

1. The name, location, size, park classification (regional, community, neighborhood, or special use), and available facilities within the parks that would help serve the project site.

The following Department of Recreation and Parks neighborhood parks are located within a two-mile radius of the project site:

- Bellaire Avenue Park, located at 7960 Bellaire Avenue.
- De Garmo Park, located at 10145 Arminta Street.
- Jaime Beth Slavin Park, located at 7965 Whitsett Avenue.

The following Department of Recreation and Parks community parks are located within a five-mile radius of the project site:

- Albert Piantanida Intergenertional Center, located at 9540 Van Nuys Boulevard.

- Andres and Maria Cardenas Recreation Center, located at 14740 W. Blythe Street.
- Branford Park, located at 13310 Branford Street.
- David M. Gonzales Recreation Center, located at 10943 Herrick Avenue.
- Delano Park, located at 15100 Erwin Street.
- Fernangeles Recreation Center, located at 8851 Laurel Canyon Road.
- Hubert H. Humphry Memorial Park, located at 12560 Fillmore Street.
- Lake View Terrace Recreation Center, located at 11075 Foothill Boulevard.
- North East Valley Multipurpose Center, located at 11300 Glenoaks Boulevard.
- North Hills Community Park, located at 8756 Parthenia Place.
- North Hollywood Park, located at 11430 Chandler Boulevard.
- Panorama City Recreation Center, located at 8600 Hazeltine Avenue.
- Ritchie Valens Park, located at 10731 Laurel Canyon Boulevard.
- Sepulveda Recreation Center, located at 17017 Burbank Boulevard.
- Sheldon-Arleta Park, located near Sheldon, Arleta and Hollywood Freeway.
- Stonehurst Recreation Center, located at 9901 Dronfield Street.
- Strathern Park – North, located at 8041 Whitsett Avenue.
- Studio City Recreation Center, located at 12505 Moorpark Street.
- Sun Valley Park, located at 8133 Vineland Avenue.
- Sunland Park, located at 8651 Foothill Boulevard.
- Tiara Street Park, located at 11480 Tiara Street.
- Valley Plaza Park, located at 12240 Archwood Street.
- Van Nuys – Sherman Oaks Park, located at 14201 Huston Street.
- Van Nuys Multipurpose Center, located at 6514 Sylmar Avenue.
- Van Nuys Recreation Center, located at 14301 Vanowen Street.
- Victory-Vineland Recreation Center, located at 11117 W. Victory Boulevard.
- Weddington Park North, located at 10844 Acama Street.
- Whitsett Sports Field, located at 7000 Whitsett Avenue.

The following Department of Recreation and Parks regional parks are located within a ten-mile radius of the project site:

- Aliso Canyon Park, located at 18041 Rinaldi Street.
- Andres Pico Adobe, located at 10940 N. Sepulveda Boulevard.
- Balboa Golf Course, located at 16821 Burbank Boulevard.
- Barnsdall Park, located at 4800 Hollywood Boulevard.
- Campo de Cahuenga, located at 3919 Lankershim Boulevard.
- Coldwater Canyon Park, located at 12601 Mulholland Drive.
- Deervale-Stone Canyon Camp, located at 14890 Valley Vista Boulevard.
- Encino Golf Course, located at 16821 Burbank Boulevard.
- Griffith Park, located at 4730 Crystal Springs Drive.

- Haines Canyon Park, located at 7021 Arama Avenue.
- Hansen Dam Recreation Area, located at 11770 Foothill Boulevard.
- Holmby Park, located at 601 Club View Drive.
- La Tuna Canyon Park, located at 6801 La Tuna Canyon Road.
- Little Landers Park, located at 10110 Commerce Avenue.
- Los Feliz Golf Course, located at 3207 Los Feliz Boulevard.
- McGroarty Cultural Art Center, located at 7570 McGroarty Terrace.
- O'Melveny Park, located at 17300 Sesnon Boulevard.
- Palisades Park (Porter Ranch), located at 12100 Tampa Avenue
- Runyon Canyon Park, located at 2000 N. Fuller Avenue.
- San Vicente Mountain Park, located at 17500 Mulholland Drive.
- Sepulveda Basin Recreation Area, located at 17017 Burbank Boulevard.
- Sepulveda Basin Wildlife Reserve, located at 6335 Woodley Avenue.
- Sherman Oaks Castle Park, located at 4989 N. Sepulveda Boulevard.
- Verdugo Mountain Park, located at 9999 Edmore Place.
- Villa Cabrini Park, located at 9401 Villa Cabrini Drive, West.
- Wattles Garden Park, located at 1824 N. Curson Avenue.
- Woodley Lakes Golf Course, located at 6331 Woodley Avenue.

For additional information regarding facilities and features available in these parks visit our website: www.laparks.org.

2. Existing ratios of developed parkland per resident on a Citywide basis, and within the Sun Valley-La Tuna Canyon Community plan area.

The City of Los Angeles overall has a ratio of 0.84 acres of neighborhood and community parkland per 1,000 residents. The Sun Valley-La Tuna Canyon Community Plan area has a ratio of 0.92 acres of neighborhood and community parkland per 1,000 residents.

3. Current capacity and level of use of parks and recreational facilities near the Project Site.

While data regarding the level of use for the recreational facilities that serve the project site is not available, parks within the surrounding community are heavily utilized and often overburdened.

4. Any planned improvements to the parks and recreational facilities in the service area of the Project site (i.e., construction or expansion, new facilities, etc.)? If so, please describe.

The Department is currently in the process of refurbishing basketball courts throughout the City. David Gonzalez Recreation Center is planned to the existing wood gym floor removed and replaced and a lighting upgrade.

5. City-adopted parks and recreation standards and acreage goals to be used in analyzing the Project.

The Public Recreation Plan, a portion of the Service Element of the City's General Plan, sets a goal of a parkland acres-to-population ratio of neighborhood and community parks of 4.0 acres per 1,000 residents.

6. Any other design features or special parks and recreation requirements due to the specific attributes of the Project?

Recreation and Parks projects must comply with ADA and other applicable Code requirements.

Thank you for the opportunity to provide information relative to the proposed project's impact on recreation and park services. If you have any questions or comments regarding this information please contact Melinda Gejer, of my staff, at (213) 202-2657 or melinda.gejer@lacity.org.

Sincerely,

MICHAEL A. SHULL
General Manager

DARRYL FORD
Acting Superintendent
Planning, Maintenance, and Construction Branch

DF/MG:ar

cc: Reading File

LOS ANGELES UNIFIED SCHOOL DISTRICT

Facilities Services Division

DATE: September 17, 2019

TO: Jessie Barkley
ICF
555 West 5th Street, Suite 3100
Los Angeles, CA 90013

FROM: Rena Perez, Director
Master Planning & Demographics

SUBJECT: Environmental Impact Report Information Requested for: ***7940 LANKERSHIM BOULEVARD PROJECT,*** *7918-7946 North Lankershim Boulevard and 11650-11664 Strathern Street, North Hollywood, CA 91605. The project is planned to construct 432, (72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom), multi-family residential units. A total of 11 percent (48 units) would be designated as restricted affordable housing for either Extremely Low Income Households, (five percent, 22 units), or Very Low Income Households, (six percent, 26 units).*

Included please find a ***LAUSD Schools Enrollments and Capacities Report*** for the schools and programs serving the project address. This report contains the most recent data available on operating capacities and enrollments, and is designed to address any questions pertaining to overcrowding and factors related to school capacity. All schools operate on single track calendar.

Please note that no new school construction is planned and the data in this report *already take into account*: portable classrooms on site, additions being built onto existing schools, student permits and transfers, programs serving choice areas, and any other operational activities or educational programming affecting the operating capacities and enrollments among LAUSD schools.

Additional information on LAUSD's Capital Improvement programs can be found on the Facilities Services Division main webpage at http://www.laschools.org/new-site/. Listings of residential schools and other programs serving the project can be found using LAUSD's Residential School Finder at http://rsi.lausd.net/ResidentSchoolIdentifier/.

The Developer Fee Justification Study with student generation rates can be found online at https://achieve.lausd.net/domain/921.

MASTER PLANNING AND DEMOGRAPHICS RESPONSE TO SPECIFIC QUESTIONS

Questions: 1, 3-6 The project is located in a **MS** attendance choice/option area. Please see LAUSD Schools Enrollments and Capacities Report details;

Questions: 2 Please contact the LAUSD Developer Fee Program Office (DFPO) at (213) 241-0715 if more information regarding fees and student generation rates is needed.

ATTACHMENTS

1. LAUSD SCHOOLS ENROLLMENTS AND CAPACITIES REPORT
2. BOUNDARY DESCRIPTIONS FOR SCHOOLS SERVING PROPOSED PROJECT
   Boundary descriptions for existing schools identified as serving the proposed project

Sincerely,

Rena Perez, Director

PROJECT SERVED: 7940 LANKERSHIM BOULEVARD PROJECT, 7918-7946 North Lankershim Boulevard and 11650-11664 Strathern Street, North Hollywood, CA 91605. The project is planned to construct 432, (72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom), multi-family residential units. A total of 11 percent (48 units) would be designated as restricted affordable housing for either Extremely Low Income Households, (five percent, 22 units), or Very Low Income Households, (six percent, 26 units).

SCHOOL YEAR: 2017-2018

1	2	3	4	5	6	7	8	9	10
Cost Center Code	School Name	Capacity	Resident Enrollment	Actual Enrollment	**Current seating overage/(shortage)**	Overcrowded **Now**?	Projected Enrollment	**Projected seating overage/(shortage)**	Overcrowding Projected in **Future**?
1220501	Arminta St El	524	489	442	35	**No**	486	38	**No**
	SUN VALLEY CEM	1598	2022	1672	(424)	**Yes**	1734	(136)	**Yes**
1839601	Sun Valley Mag ET	-	-	466	-	-	-	-	-
1839602	Sun Valley Mag ES	-	-	493	-	-	-	-	-
1863601	Polytechnic SH	3049	2862	2769	187	**No**	2523	526	**No**

[a] Schools & programs that are part of a "school choice area" pull enrollments from the area school(s) that have resident attendance boundaries.

Seating overage/shortage and overcrowding is calculated and reported for the school choice area as a whole; capacity and actual enrollment is reported for each individual school and/or program listed in the shaded cells.

Schools Planned to Relieve Known Overcrowding

NONE

see next page

NOTES:

[1] School's ID code.

[2] School's name

[3] School's operating capacity. The maximum number of students the school can serve with the school's classroom utilization. Excludes capacity allocated to charter co-locations. Includes capacity for magnet programs.

[4] The total number of students living in the school's attendance area and who are eligible to attend the school at the start of the reported school year, plus students enrolled at any on-site magnet centers.

[5] The number of students actually attending the school at the start of the reported school year, including magnet students.

[6] Reported school year seating overage or (shortage): equal to (capacity) - (resident enrollment).

[7] Reported school year overcrowding status of school. The school is overcrowded if any of these conditions exist:
-There is a seating shortage.
-There is a seating overage of LESS THAN or EQUAL TO a margin of 20 seats.

[8] Projected 5-year total number of students living in the school's attendance area and who are eligible to attend the school as of the start of the school year. Includes magnet students.

[9] Projected seating overage or (shortage): equal to (capacity) - (projected enrollment).

[10] Projected overcrowding status of school. The school will be considered overcrowded in the future if any of these conditions exist:
-There is a seating shortage in the future.
-There is a seating overage of LESS THAN or EQUAL TO a margin of 20 seats in the future.

[°] Magnet Schools with Resident Kindergarten Enrollment: Resident enrollment is reported for Kindergarten only. Actual enrollment is reported for all grades in school. Projected data not reported.

[*] Enrollment is by application only.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities Services Division

LOC. CODE: 2205 COST CENTER: 1220501

SUBJECT: NEW SERVICE BOUNDARY DESCRIPTION FOR ARMINTA STREET SCHOOL EFFECTIVE JULY 1, 2010.

The area described below has been approved as the attendance area served by the above-mentioned school. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This boundary supersedes boundary effective September 1, 1970 (updated 7-1-1996).

This is an official copy for your file.

(GRADES K - 5)

ROSCOE BOULEVARD * TUXFORD STREET * TELFAIR AVENUE (BOTH SIDES EXCLUDED) * PENROSE STREET (BOTH SIDES EXCLUDED) * TUJUNGA AVENUE (BOTH SIDES EXCLUDED) TO GOSS STREET * TUJUNGA AVENUE (BOTH SIDES) * STRATHERN STREET (BOTH SIDES) * FAIR AVENUE (BOTH SIDES) * STAGG STREET (BOTH SIDES AND BONNER AVENUE INCLUDED) * VINELAND AVENUE * SATICOY STREET * LANKERSHIM BOULEVARD * STRATHERN STREET * RADFORD AVENUE * CANTARA STREET * WEBB AVENUE.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: JAMES SOHN, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 8396 COST CENTER: 1839601

SUBJECT: CLARIFICATION OF THE BOUNDARY DESCRIPTION FOR SUN VALLEY MIDDLE SCHOOL ENGINEERING, ARTS and TECHNOLOGY MAGNET EFFECTIVE JULY 1, 2008 (NAME CHANGE 7-1-2013) (CLARIFIED 7-1-2015).

This clarification of the existing boundary description does not change the intent of the boundary as it was approved on July 1, 2008 (name change 7-1-2013). The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES 6 - 8)

STRATHERN STREET * LANKERSHIM BOULEVARD * TUXFORD STREET * SAN FERNANDO ROAD * SUNLAND BOULEVARD * CLYBOURN AVENUE EXTENDED * A LINE EASTERLY FROM THE INTERSECTION OF THE EXTENSION OF PENDLETON STREET AND THE EXTENSION OF CLYBOURN AVENUE TO AND INCLUDING 9457 SUNLAND BOULEVARD * SUNLAND BOULEVARD TO AND EXCLUDING 9500 SUNLAND BOULEVARD * A LINE EASTERLY, SOUTH OF ORMOND STREET, ALONG CREST OF HILLS NORTH OF LA TUNA CANYON ROAD * FOOTHILL FREEWAY * LOS ANGELES UNIFIED SCHOOL DISTRICT BOUNDARY * OXNARD STREET * VINELAND AVENUE * VICTORY BOULEVARD * FAIR AVENUE * UNION PACIFIC RAILROAD * LAUREL CANYON BOULEVARD.

OPTIONAL: SUN VALLEY ENGINEERING, ARTS & TECHNOLOGY MAGNET, BYRD AND MADISON MIDDLE SCHOOLS

STRATHERN STREET * LAUREL CANYON BOULEVARD * UNION PACIFIC RAILROAD * HOLLYWOOD FREEWAY.

Sun Valley Middle School Continuous Enrolling Magnet: students resident to Sun Valley Middle School Continuous Enrolling Magnet in grades 6 – 8 may make application to one of two magnet programs: Sun Valley Middle School Engineering, Arts & Technology for Global Progress Magnet, or Sun Valley Middle School Environmental Studies through Arts & Sciences Magnet. Additionally, Sun Valley Middle School hosts a by-application-only magnet center, Sun Valley Middle School Biomedical Sciences, Engineering & Leadership Magnet.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: MARK HOVATTER, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

LOS ANGELES UNIFIED SCHOOL DISTRICT
Facilities **S**ervices **D**ivision

LOC. CODE: 8636 **COST CENTER:** 1863601

SUBJECT: UPDATE BOUNDARY DESCRIPTION JOHN H. FRANCIS POLYTECHNIC HIGH SCHOOL EFFECTIVE JULY 1, 2009 (UPDATED 7-1-2010).

Reconfiguration has changed the grade levels serviced by this school and the boundary description has been updated to reflect this change. This updating does not change the intent of the boundary as it was approved on July 1, 2009. The description starts at the most northwesterly corner and follows the streets in clockwise order. Boundaries are on the center of the street unless otherwise noted.

This is an official copy for your file.

(GRADES 9 – 12)

BRANFORD STREET (BOTH SIDES EXCLUDED) * GOLDEN STATE FREEWAY * SUNLAND BOULEVARD * SAN FERNANDO ROAD * LOS ANGELES UNIFIED DISTRICT BOUNDARY * VALERIO STREET AND EXTENSION * LAUREL CANYON BOULEVARD * UNION PACIFIC RAILROAD * VENTURA CANYON AVENUE * WOODMAN AVENUE.

OPTIONAL: FRANCIS POLYTECHNIC AND VERDUGO HILLS HIGH SCHOOLS

GOLDEN STATE FREEWAY * LOS ANGELES UNIFIED SCHOOL DISTRICT BOUNDARY * SAN FERNANDO ROAD * SUNLAND BOULEVARD.

For assistance, please call Master Planning & Demographics, Facilities Services Division, at (213) 241-8044.

APPROVED: JAMES SOHN, Chief Facilities Executive, Facilities Services Division

DISTRIBUTION: School
Transportation Branch
Master Planning and Demographics
Office of Environmental Health and Safety
Department of Transportation, City of L. A.

ORM. GEN. 160 (Rev. 6-80)

CITY OF LOS ANGELES

INTER-DEPARTMENTAL CORRESPONDENCE

December 19, 2019

To: ICF
Attn: Jessie Barkley
555 W. 5th Street, Suite 3100
Los Angeles, CA. 90013

From: Los Angeles City Fire Department

Subject: Request for Fire Services Report

PROJECT NAME: **7940 LANKERSHIM BLVD PROJECT**
PROJECT APPLICANT: **SUMMERLAND PARTNERS**
PROJECT LOCATION: **7918-7946 NORTH LANKERSHIM BLVD and 11659-11664 STRATHERN STREET**

PROJECT DESCRIPTION:

The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The Project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet (sf) and a Floor Area Ratio (FAR) of 3.32:1. The residentials would include 72 one-bedroom units, 180 two-bedroom units, and 180 three-bedroom units. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for either Extremely Low Income Households or Very Low Income Households.

Up to 541 parking spaces (432 residential and 109 commercial parking spaces) would be provided in structured parking located within one subterranean level and on above-ground level. All parking would be fully enclosed and screened from public view. The Project would provide 224 bicycle spaces in the structural parking (30 short term bicycle spaces and 194 long term bicycle spaces).

Open space areas and amenities for residents would be included in a central courtyard that would be landscaped and open to the sky. Other amenities would include a community room, recreation room, swimming pool and spa area, pet park, and private balconies.

The following comments are furnished in response to your request for this Department to review the proposed development:

FIRE FLOW:

The adequacy of fire protection for a given area is based on required fire-flow, response distance from existing fire stations, and this Department's judgment for needs in the area. In general, the required fire-flow is closely related to land use. The quantity of water

necessary for fire protection varies with the type of development, life hazard, occupancy, and the degree of fire hazard.

Fire-flow requirements vary from 2,000 gallons per minute (G.P.M.) in low density residential areas to 12,000 G.P.M. in high-density commercial or industrial areas. A minimum residual water pressure of 20 pounds per square inch (P.S.I.) is to remain in the water system, with the required gallons per minute flowing. The required fire-flow for this project has been set at **6,000 to 9,000 G.P.M. from four to six fire hydrants flowing simultaneously.**

Improvements to the water system in this area may be required to provide 6,000 to 9,000 G.P.M. fire-flow. The cost of improving the water system may be charged to the developer. For more detailed information regarding water main improvements, the developer shall contact the Water Services Section of the Department of Water and Power.

RESPONSE DISTANCE:

Based on a required fire-flow of 6,000 to 9,000 G.P.M., the first-due Engine Company should be within 1 mile(s), the first-due Truck Company within 1 ½ mile(s).

FIRE STATIONS:

The Fire Department has existing fire stations at the following locations for initial response into the area of the proposed development: **7918-7946 NORTH LANKERSHIM BLVD.**

DISTANCE	Fire Station No. 89	SERVICES & EQUIPMENT	STAFF
1.6	7063 Laurel Cyn. Blvd. No. Hollywood, CA 91605	Engine, Assessment Light Force, Paramedic Rescue Ambulance, BLS Rescue Ambulance and Urban Search and Rescue.	14
2.2	**Fire Station No. 77** 9224 Sunland Boulevard Sun Valley, CA 91352	Assessment Engine, Paramedic Rescue Ambulance and Water Tender	6
4.8	**Fire Station No102** 13200 Burbank Boulevard Van Nuys, CA 91401	Assessment Engine and Paramedic Rescue Ambulance	6
3.4	**Fire Station No. 60** 5320 Tujunga Avenue North Hollywood, CA 91601	Engine, Assessment Light Force, Paramedic Rescue Ambulance, BLS Rescue Ambulance AND Foam Tender BC	16

4.6	**Fire Station No. 7** 14630 Plummer Street Panorama City, CA 91402	Assessment Engine and Paramedic Rescue Ambulance	**6**

Based on these criteria (response distance from existing fire stations), fire protection would be considered **inadequate.**

The Los Angeles Fire Department continually evaluates fire station placement and overall Department services for the entire City, as well as specific areas. The development of this proposed project, along with other approved and planned projects in the immediate area, may result in the need for the following:

1. Increased staffing for existing facilities. (I.E., Paramedic Rescue Ambulance and EMT Rescue Ambulance resources.)
2. Additional fire protection facilities.
3. Relocation of present fire protection facilities.

For additional information, please contact the Fire Development Services Section, Hydrants & Access Unit at **(213) 482-6543.**

At present, there are no immediate plans to increase Fire Department staffing or resources in those areas, which will serve the proposed project.

RALPH M. TERRAZAS,
Fire Chief

Kristin Crowley, Fire Marshal
Bureau of Fire Prevention and Public Safety

KC:RED:red

ATTACHMENT: LAFD Frequently Asked Questions

LOS ANGELES FIRE DEPARTMENT

Hydrants and Access Unit

Request For Fire Services Information: FAQ's

Q. Fire Stations that would serve the Project including the address and distance to the Project Site, as well as an identification of the first-in and backup stations.

A. Information can be attained at www.lafd.org (Fire Stations)

Q. A map of the service area and associated population for each of the fire stations that serve the Project Site.

A. Information can be attained at www.lafd.org (Fire Stations)

Q. Existing staffing levels (e.g., Captains, Firefighters, Paramedics, EMT's, HazMat-trained personnel) for each fire station serving the Project Site.

A. Information can be attained at www.lafd.org (Contact Area Fire Station)

Q. Equipment for each fire station serving the Project Site, including number of engines, trucks, rescue ambulances.

A. Information can be attained at www.lafd.org (Contact Area Fire Station)

Q. A description of any plans by LAFD to construct new or expand existing fire stations that would serve the Project. Incident data, by type of incident, on a monthly and annual basis for each fire station that would serve the project, and provide monthly data for the last two years and annual data for the last five years;

A. None Scheduled at this time.

Q. Indication of whether the response times and distances for each fire station serving the Project Site meet the performance standards of the LAFD.

A. Information can be attained at www.lafd.org (FIRESTATLA)

Q. The fire flow, hydrant, and residual water pressure requirements for the Project.

A. An Inspector will be assigned to forward requirements/recommendations.

Appendix K
Transportation Study

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

7940 Lankershim Boulevard
DOT Case No. SFV-20-109417
DOT Project ID No. 49608

Date: June 20, 2020

To: Daniel Skolnick, City Planner
Department of City Planning

From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: **CEQA TRAFFIC IMPACT ASSESSMENT FOR THE MIXED-USE PROJECT AT 7940 LANKERSHIM BOULEVARD (ENV-2019-808-EAF/CPC-2019-807-ZCJ-HD-MCUP-SPR)**

On November 14, 2019, the Department of Transportation (DOT) issued a traffic assessment report to the Department of City Planning for the mixed-use project at 7940 Lankershim Boulevard, which was subject to a transportation analysis dated October 2019 prepared by Gibson Transportation Consulting, Inc. However, subsequent to the release of this report, on July 30, 2019, pursuant to Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the State's California Environmental Quality Act (CEQA) Guidelines, the City of Los Angeles adopted vehicle miles traveled (VMT) as the criteria by which to determine transportation impacts under CEQA. Therefore, in response to this action, the applicant submitted a CEQA analysis for the proposed project, based on the thresholds set forward in DOT's Transportation Assessment Guidelines (TAG), in addition to the previous analysis dated October 2019 which also suffice the non-CEQA portion of the traffic analysis. Please replace the previous November 14, 2019 DOT assessment in ***Attachment A*** *with this report which addresses the totality of the transportation analysis.*

The Department of Transportation (DOT) has completed its traffic assessment review for the proposed mixed-use development Project located at 7940 Lankershim Boulevard in the Sun Valley - La Tuna Canyon Community Planning Area of the City of Los Angeles. In compliance with SB 743 and the CEQA, an analysis is required to identify the Project's ability to promote the reduction of greenhouse gas emissions, access to diverse land uses, and the development of multi-modal networks. The significance of a project's impact in this regard is measured against the VMT thresholds established in DOT's Transportation Assessment Guidelines (TAG), as described below.

DISCUSSION AND FINDINGS

A. Project Description

The Project proposes to remove an existing construction yard and vacant commercial and office buildings and to construct a new seven-story mixed-use development consisting of 384 market rate apartment units, 48 affordable apartment units, an approximate 14,000 square-foot pharmacy with

drive-through, and an approximate 8,000 square-foot high-turn over sit-down restaurant. The project would also include an approximate 18,000 square-foot non-trip generating community and recreation room space as an amenity for Project residents.

B. CEQA Screening Thresholds

A trip generation analysis was conducted to determine if the project would exceed the net 250 daily vehicle trips (DVT) screening threshold set forward by the TAG. The City of Los Angeles VMT Calculator Tool Version 1.3, which draws upon trip rate estimates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, as well as applying trip generation adjustments when applicable, based on sociodemographic data and the built environment factors of the Project's surroundings, determined that the Project exceeds the net 250 DVT threshold. Therefore, a transportation assessment was required. The assessment concluded that implementation of the project would not result in a significant transportation impact. A copy of the VMT calculator-screening pages is provided as **Attachment B**. The traffic analysis included further discussion on the screening of the following CEQA transportation thresholds:

1. **Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies**
   Using the VMT Calculator Tool, the assessment determined that the Project would generate a 4,016 net increase in DVT. The project is also required to make required modifications to the public right-of-way, and has a greater than 250 linear foot frontage along Lankershim Boulevard, which is a classified Boulevard II in the City's General Plan. As a result, the Project was further assessed under the Transportation Impacts section.

2. **Threshold T-2.1: Causing Substantial Vehicle Miles Traveled**
   Using the VMT Calculator Tool, the assessment determined that the Project would generate a 4,016 net increase in DVT and a 29,637 net increase in VMT, without any TDM mitigation strategies nor applying any existing use credit. As a result, the Project was further assessed under the Transportation Impacts section.

3. **Threshold T-3: Substantially Increasing Hazards Due To a Geometric Design Feature or Incompatible Use**
   As shown on the site plan in **Attachment C**, the Project proposes new driveways from the public right-of-way and is required to make modifications to the public right-of-way. As a result, the Project was further assessed under the Transportation Impacts section below.

C. Transportation Impacts

Pursuant to Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the State's CEQA Guidelines, the City of Los Angeles adopted VMT as a criterion in determining transportation impacts under CEQA. The new LADOT TAG provides instructions on preparing transportation assessments for land use proposals and defines the significant impact thresholds. The traffic analysis included further discussion on impact criteria of the following CEQA transportation thresholds:

1. **Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies**
   The traffic analysis evaluated the proposed Project for conformance with the adopted City's development plans and policies for all travel modes. It was determined by the applicant that the proposed project does not obstruct or conflict with the City's development policies and standards for the transportation system. Therefore, no significant transportation impact was determined for this threshold.

2. **Threshold T-2.1: Causing Substantial Vehicle Miles Traveled**
   Using the VMT Calculator Tool, the assessment determined that the project would not result in a significant impact for household VMT per capita. The DOT VMT Calculator Tool measures project impact in terms of Household VMT per Capita, and Daily Work VMT per Employee. DOT identified distinct thresholds for significant VMT impacts for each of the seven Area Planning Commission (APC) areas in the City. For the North Valley APC area, in which the project is located, the following thresholds have been established:

   - Household VMT per Capita: 9.2
   - Daily Work VMT per Employee: 15

   Since the Project is proposing less than 50,000 square-feet of commercial retail/restaurant uses, the commercial component of the Project is considered local-serving, and would not result in a significant impact for Work VMT per Employee.

   As shown on **Attachment D**, the DOT VMT Calculator Tool determined a Household VMT per Capita of 7.6, without applying any TDM mitigation measure. This results in a no significant impact for Household VMT per Capita. However, the applicant will provide TDM measures to further reduce the Household VMT per Capita to 6.5. These TDM measures, considered to be Project Design Features in the VMT calculator, include the following:

   - Reduced Parking Supply
   - Bicycle Parking per LAMC
   - Pedestrian Improvements

3. **Threshold T-3: Substantially Increasing Hazards Due To a Geometric Design Feature or Incompatible Use**
   Based on the conceptual Project site plan and design assumptions, the Project does not present any vehicle, bicycle, or pedestrian safety impacts. Driveway vehicle movements are described under Project Access and Circulation.

D. Access and Circulation

The traffic study indicates that access to the Project site subterranean parking garage would be provided via one full-access driveway on Strathern Street and one limited access driveway accommodating right-turn ingress and right-turn egress only on Lankershim Boulevard. The driveway on Strathern Street would provide access to the residential uses, while the driveway on Lankershim Boulevard would provide access to both the residential and commercial uses on site. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. The

Project driveway serving to the drive-through Pharmacy should be designed to minimize queuing on the adjacent street system that would block through traffic. However, the review of this study does not constitute approval of the driveway dimensions, access and circulation scheme. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (6262 Van Nuys Blvd., Room 320, Van Nuys 91401 @ 818-374-4699). In order to minimize and prevent last minute building design changes, the applicant should contact DOT, prior to the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. New driveways should be Case 2 - designed with a recommended width of 30 feet for two-way operations and 16 feet for one-way operations. Delivery truck loading and unloading should take place on site with no vehicles having to back into the project via the proposed project driveways.

PROJECT REQUIREMENTS

A. Corrective Measures (Non-CEQA Analysis)

In the Traffic Study report prepared by Gibson Transportation Consulting, Inc., the analysis included a review of current and potential future deficiencies that may result from the project. To address these deficiencies, the applicant should be required to implement the following corrective measures.

1. **Transportation Demand Management (TDM) Program**

   The Transportation Demand Management Ordinance (L.A.M.C. 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

   - Expand the reach and application of TDM strategies to more land uses and neighborhoods.
   - Rely on a broader range of strategies that can be updated to keep pace with technology.
   - Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

   Although not yet adopted, DOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update expected to be adopted this year. The applicant has agreed to voluntarily comply with the updated ordinance, which will require the implementation of specific trip reduction measures aimed at reducing the number of single-occupant vehicle trips generated by the site's employees.

   The TDM program outlined below details a set of strategies proposed for the Project designed to reduce peak hour vehicular traffic to and from the Project Site. It is a comprehensive program of design features, transportation services, education programs, and incentive programs intended to reduce the impact of traffic from residents of the Project Site during the most congested time periods of the day. The Project shall develop and implement a TDM program to promote non-auto travel, reduce the use of single-occupant vehicle trips, etc. The TDM program would be subject to the review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

- Educational Programs/On-Site TDM Coordinator
- Transportation Information Center/kiosks
- Bicycle amenities
- Contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements in the Project area under the 2010 Bicycle Plan and Mobility Plan

2. **Transportation System Management (TSM) Program**
As part of the mitigation program, the Project would fund TSM improvements within the study area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with DOT Signal Design, the following TSM improvements would be implemented:

- Upgrade the existing traffic signal controller cabinets to Type 351/2/6/7 cabinets for these four intersections:
  - #5 Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - #7 Lankershim Boulevard & Webb Avenue & Strathern Street
  - #10 Lankershim Boulevard & Stagg Street
  - #11 Lankershim Boulevard & Saticoy Street

- Replacement of existing video fibers with a 24-strand signal mode fiber cable on intersection #7 Lankershim Boulevard & Webb Avenue & Strathern Street

- Upgrade existing pedestrian push buttons to accessible pedestrian signals on these four intersections:
  - #5 Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - #7 Lankershim Boulevard & Webb Avenue & Strathern Street
  - #10 Lankershim Boulevard & Stagg Street
  - #11 Lankershim Boulevard & Saticoy Street

Implementation of the combined TSM improvements could improve safety by improving the traffic signal infrastructure. A final TSM program approved by DOT Signal Design is required prior to the issuance of the first certificate of occupancy for the project.

3. **Mobility Improvement Program**
The Project would contribute to the implementation of a mobility improvement program that includes a variety of pedestrian and transit infrastructure solutions to promote non-auto travel. Mobility improvements make it more attractive and convenient for Project residents, employees, and patrons to choose non-auto travel to and from the Project site.

By upgrading and enhancing the pedestrian and transit infrastructure around the Project and throughout the study area, the mobility improvement program effectively facilitates the use of alternative modes and reduces the total number of vehicle trips associated with the Project. The mobility improvement plan for the Project will include the following improvements:

- Installation of new crosswalks
  Installation of continental (high visibility) crosswalks at the following four study intersections:
  - #4 Webb Avenue & Roscoe Boulevard
  - #6 Laurel Canyon Boulevard & Strathern Street
  - #9 Vineland Avenue & Strathern Street
  - #12 Tujunga Avenue & Saticoy Street

  Continental (high visibility) crosswalk markings include white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection. Additionally, continental (high visibility) crosswalks include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk.

- Installation of bus stop shelters
  The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, will be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage. Bus stop shelters provide shade and protection from inclement weather conditions, as well as an enhanced sense of safety and security. Additionally, bus stop shelters may improve visibility of approaching vehicles for riders and/or visibility of riders waiting at the stop for bus drivers. The side panels of bus stop shelters may also contain valuable schedule/route information and/or advertisements to support the financing of the shelters.

- Installation of bus stop benches
  The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, will be improved with the installation of a bus stop bench. The bus stop currently only provides transit signage. Bus stop benches provide seating for riders waiting for their buses to arrive. This public amenity is especially critical for elderly and disabled riders who may be deterred from using transit that requires standing for extended period of time.

- Installation and maintenance of sidewalks
  One key corridor has been identified within the study area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. As previously detailed, both Strathern Street and Lankershim Boulevard are identified as part of the Vision Zero High Injury Network, which spotlights streets with a high concentration of severe injuries and deaths, with an emphasis on those involving people walking and bicycling. Improvements to this segment of Strathern Street will include widening, paving, and clearly marking sidewalk and curb space.

B. Construction Impacts

DOT recommends that a construction worksite traffic control plan be submitted to DOT's Citywide Temporary Traffic Control Section for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes,

hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that construction related traffic be restricted to off-peak hours to the extent possible.

C. Highway Dedication and Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035, which represents the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **Lankershim Boulevard** is a designated Boulevard II and meets the required half-width roadway of 40 feet and half-width right-of-way of 55 feet. **Strathern Street** has been designated as a Modified Avenue II, which would require a 28-foot half-width roadway within a 46-foot half-width right-of-way. The applicant should check with Bureau of Engineering's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

D. Parking Requirements

The traffic study indicated that the project would provide a total of 541 vehicular parking spaces on-site, including 432 spaces for residents, and 109 spaces for commercial uses, within one subterranean and one at grade parking level. Additionally, the Project would provide 224 bicycle parking spaces, including 194 long-term and 30 short-term spaces. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

If you have any questions, please contact Shirley Zamora of my staff at (818) 374-4692.

Attachments
File: J:\Projects\SFV\49608-7940 Lankershim

cc: Marcos Sanchez, Council District 6
Steve Rostam, DOT East Valley District
Mike Naini, DOT Signal Design
Vincent Chan, DOT B-Permit Coordinator
Ali Nahass, BOE Valley District
Quyen Phan, BOE Land Development Group
Emily Wong, Gibson Transportation Consulting, Inc.

Attachment A

FORM GEN. 160A (Rev. 1/82)

CITY OF LOS ANGELES
INTER-DEPARTMENTAL CORRESPONDENCE

7940 Lankershim Boulevard
DOT Case No. SFV 18-47832

Date: November 14, 2019

To: Nicholas Hendricks, Senior City Planner
Department of City Planning

From: Vicente Cordero, Transportation Engineer
Department of Transportation

Subject: **TRANSPORTATION IMPACT ASSESSMENT FOR THE PROPOSED MIXED-USE DEVELOPMENT PROJECT LOCATED AT 7940 LANKERSHIM BOULEVARD (ENV-2019-808-EAF/CPC-2019-807-ZCJ-HD-MCUP-SPR)**

The Department of Transportation (DOT) has reviewed the traffic impact analysis, dated October 2019 prepared by Gibson Transportation Consulting, Inc., for the proposed mixed-use development located at 7940 Lankershim Boulevard (Project site) in the Sun Valley community of the City of Los Angeles. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to established threshold standards to assess the project-related traffic impacts. Based on DOT's traffic impact criteria[1], the traffic study included the detailed analysis of twelve intersections and determined that the project-related traffic would significantly impact one of the study intersections as summarized in **Attachment 2**. The implementation of a Transportation System Management (TSM), Transportation Demand Management (TDM) Program and a Mobility Improvement Program have been proposed to alleviate the effects of this impacted intersection.

DISCUSSION AND FINDINGS

A. Project Description

The Project proposes the redevelopment of the Project site with a new seven-story mixed-use development consisting of 432 apartment units (including 48 affordable units), a 14,000 square foot (sf) pharmacy with a drive through, and 8,000 sf of restaurant use. The Project would also include 18,000 sf of non-trip generating community and recreation room space as an amenity for the residents. The construction yard and vacant commercial and office buildings that are currently on-site would be removed with development of the Project.

[1] Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

Parking for the Project would be provided on-site within one subterranean level and one at grade level. Access to the Project parking facilities would be provided via driveways along Lankershim Boulevard and Strathern Street. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. The project is expected to be completed by year 2023.

B. Trip Generation

The project is estimated to generate a net increase of approximately 3,473 daily trips, 210 trips during the a.m. peak hour and 295 trips during the p.m. peak hour. The trip generation estimates are based on rates published by the Institute of Transportation Engineers (ITE) Trip Generation, 10th Edition, 2017. A copy of the trip generation table can be found in **Attachment 1**.

C. Traffic Impacts

The study estimates that the project would result in significant traffic impacts (pre-mitigation) at the intersection of Lankershim Boulevard, Webb Avenue and Strathern Street under Existing plus Project conditions and Future Year 2023 plus Project conditions during the a.m. and p.m. peak hours. The developer has proposed a mix of TDM, TSM and Mobility Improvement programs as mitigation measures for this intersection. The design features recommended to be included for these programs are found in the Project Requirements section of this traffic assessment letter.

PROJECT REQUIREMENTS

A. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that construction related traffic be restricted to off-peak hours to the extent possible.

B. Transportation Demand Management (TDM) Program

The Transportation Demand Management Ordinance (L.A.M.C. 12.26 J) is currently being updated. The updated ordinance, which is currently progressing through the City's approval process, will:

- Expand the reach and application of TDM strategies to more land uses and neighborhoods.
- Rely on a broader range of strategies that can be updated to keep pace with technology.
- Provide flexibility for developments and communities to choose strategies that work best for their neighborhood context.

Although not yet adopted, DOT recommends that the applicant be subject to the terms of the proposed TDM Ordinance update expected in 2020. The updated ordinance is expected to be completed prior to the anticipated construction of this

Project, if approved. The applicant has agreed to provide some TDM measures which will require the implementation of specific trip reduction measures aimed at reducing the number of single-occupant vehicle trips generated by the Project.

The TDM program outlined below details a set of strategies proposed for the Project designed to reduce peak hour vehicular traffic to and from the Project site. It is a comprehensive program of design features, transportation services, education programs, and incentive programs intended to reduce the impact of traffic from residents of the Project site during the most congested time periods of the day. The Project shall develop and implement a TDM program to promote non-auto travel, reduce the use of single-occupant vehicle trips, etc. The TDM program would be subject to review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

- Educational Programs/On-Site TDM Coordinator
- Transportation Information Center/kiosks
- Bicycle amenities
- Contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements in the Project area under the 2010 Bicycle Plan and Mobility Plan

C. Transportation System Management (TSM) Program

As part of the mitigation program, the Project would fund TSM improvements within the study area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with LADOT, the following TSM improvements would be implemented:

- Upgrade existing traffic signal controller cabinets to Type 351/2/6/7 cabinets for these four intersections.

  #5 Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  #7 Lankershim Boulevard & Webb Avenue & Strathern Street
  #10 Lankershim Boulevard & Stagg Street
  #11 Lankershim Boulevard & Saticoy Street

- Replacement of existing video fibers with a 24-strand signal mode fiber cable on intersection #7 Lankershim Boulevard & Webb Avenue & Strathern Street

- Upgrade existing pedestrian push buttons to accessible pedestrian signals on these four intersections:

  #5 Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  #7 Lankershim Boulevard & Webb Avenue & Strathern Street
  #10 Lankershim Boulevard & Stagg Street
  #11 Lankershim Boulevard & Saticoy Street

Implementation of the combined TSM improvements could improve the V/C

throughout the study area.

A final TSM program approved by DOT is required prior to the issuance of the first certificate of occupancy for the project.

D. Mobility Improvement Program

The Project would contribute to the implementation of a mobility improvement program that includes a variety of pedestrian and transit infrastructure solutions to promote non-auto travel. Mobility improvements make it more attractive and convenient for Project residents, employees, and patrons to choose non-auto travel to and from the Project Site.

By upgrading and enhancing the pedestrian and transit infrastructure around the Project and throughout the study area, the mobility improvement program effectively facilitates the use of alternative modes and reduces the total number of vehicle trips associated with the Project. The mobility improvement plan for the Project will include the following improvements:

- Installation of continental (high visibility) crosswalks:

The following four study intersections have been identified as locations where continental (high visibility) crosswalks will be installed:

#4	Webb Avenue & Roscoe Boulevard
#6	Laurel Canyon Boulevard & Strathern Street
#9	Vineland Avenue & Strathern Street
#12	Tujunga Avenue & Saticoy Street

Continental (high visibility) crosswalk markings include white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection. Additionally, continental (high visibility) crosswalks include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk.

- Installation of bus stop shelters

The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, will be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage. Bus stop shelters provide shade and protection from inclement weather conditions, as well as an enhanced sense of safety and security. Additionally, bus stop shelters may improve visibility of approaching vehicles for riders and/or visibility of riders waiting at the stop for bus drivers. The side panels of bus stop shelters may also contain valuable schedule/route information and/or advertisements to support the financing of the shelters.

- Installation of bus stop benches

The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, will be improved with the installation of a bus stop bench. The bus stop currently only

provides transit signage. Bus stop benches provide seating for riders waiting for their buses to arrive. This public amenity is especially critical for elderly and disabled riders who may be deterred from using transit that requires standing for extended period of time.

- Installation and maintenance of sidewalks

One key corridor has been identified within the study area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. As previously detailed, both Strathern Street and Lankershim Boulevard are identified as part of the Vision Zero High Injury Network, which spotlights streets with a high concentration of severe injuries and deaths, with an emphasis on those involving people walking and bicycling. Improvements to this segment of Strathern Street will include widening, paving, and clearly marking sidewalk and curb space.

E. Mitigation Effectiveness

The components of the Project's mitigation program described above would result in peak hour trip reductions from the implementation of the TDM program, as well as operational improvements as a result of the mobility improvement program and TSM improvements. The combined implementation of the mobility improvement program and TSM improvements would improve V/C by approximately 1.5% throughout the Study Area. The effectiveness of the proposed transportation mitigation program was analyzed by applying the appropriate trip reductions and operational improvements that comprise the mitigation measures. The Existing with Project Mitigation Conditions and Future with Project Mitigation Conditions are summarized in **Attachment 2**.

F. Highway Dedication and Street Widening Requirements

On January 20, 2016, the City Council adopted the Mobility Plan 2035, which represents the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **Lankershim Boulevard & Strathern Street** have been designated as a Modified Avenue II, which would require a 28-foot half-width roadway within a 46-foot half-width right-of-way. The applicant should check with Bureau of Engineering's Land Development Group to determine the specific highway dedication, street widening and/or sidewalk requirements for this project.

G. Parking Requirements

The traffic study indicated that the project would provide a total of 541 vehicular parking spaces on-site, including 432 spaces for residents, and 109 spaces for commercial uses, within one subterranean and one at grade parking level. Additionally, the Project would provide 224 bicycle parking spaces, including 194 long-term and 30 short-term spaces. The applicant should check with the

Department of Building and Safety on the number of Code-required parking spaces needed for the project.

H. Driveway Access and Circulation

The traffic study indicates that access to the Project site subterranean parking garage would be provided via one full-access driveway on Strathern Street and one limited access driveway accommodating right-turn ingress and right-turn egress only on Lankershim Boulevard. The driveway on Strathern Street would provide access to the residential uses, while the driveway on Lankershim Boulevard would provide access to both the residential and commercial uses on site. In addition, the Pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. The Project driveway serving to drive thru Pharmacy should be designed to minimize queuing on the adjacent street system that would block through traffic. However, the review of this study does not constitute approval of the driveway dimensions, access and circulation scheme. Those require separate review and approval and should be coordinated with DOT's Citywide Planning Coordination Section (6262 Van Nuys Blvd., Room 320, Van Nuys 91401 @ 818-374-4699). In order to minimize and prevent last minute building design changes, the applicant should contact DOT, prior to the commencement of building or parking layout design efforts, for driveway width and internal circulation requirements. New driveways should be Case 2 - designed with a recommended width of 30 feet for two-way operations and 16 feet for one-way operations. Delivery truck loading and unloading should take place on site with no vehicles having to back into the project via the proposed project driveways.

I. Development Review Fees

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009 and updated in 2014. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Durre shamsi at (818) 374-4694.

c: Marcos Sanchez, Council District 6
Lilian Rubio, DCP Planning Associate
Steve Rostam, DOT East Valley District
Adam Driscoll, DOT Signal Design
George Chen, DOT Signal Design
Vincent Chan, DOT B-Permit Coordinator
Carlos Rodriguez, DOT Vision Zero Coordinator
Ali Nahass, BOE Valley District
Quyen Phan, BOE Land Development Group
Emily Wong, Gibson Transportation Consulting, Inc.

Attachment 1
Project Trip Generation Estimates

Land Use	ITE Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates [a]									
Multifamily Housing (Mid-Rise)	221	per du	5 44	26%	74%	0 36	61%	39%	0 44
Pharmacy/Drugstore with Drive-Through Window	881	per ksf	109 16	53%	47%	3 84	50%	50%	10 29
High-Turnover Restaurant	932	per ksf	112 18	55%	45%	9 94	62%	38%	9 77
Construction Yard	[c]	per ksf	[c]	50%	50%	0 07	50%	50%	0 02
Proposed Project									
Multifamily Housing (Mid-Rise)	221	432 du	2,350	41	115	156	116	74	190
Less Walk-In/Transit Reduction - 10% [d]			*(235)*	*(4)*	*(12)*	*(16)*	*(12)*	*(7)*	*(19)*
Subtotal - Residential			2,115	37	103	140	104	67	171
Pharmacy/Drugstore with Drive-Through Window	881	14 ksf	1,528	29	25	54	72	72	144
Less 5% Internal Capture [e]			*(76)*	*(1)*	*(2)*	*(3)*	*(4)*	*(3)*	*(7)*
Less Walk-In/Transit Reduction - 10% [d]			*(145)*	*(3)*	*(2)*	*(5)*	*(7)*	*(7)*	*(14)*
Pass-by Reduction - 40% [f]			*(523)*	*(10)*	*(8)*	*(18)*	*(24)*	*(25)*	*(49)*
Subtotal - Pharmacy with Drive-Through Window			784	15	13	28	37	37	74
High-Turnover Restaurant	932	8 ksf	897	44	36	80	48	30	78
Less 5% Internal Capture [e]			*(45)*	*(2)*	*(2)*	*(4)*	*(2)*	*(2)*	*(4)*
Less Walk-In/Transit Reduction - 10% [d]			*(85)*	*(4)*	*(4)*	*(8)*	*(5)*	*(2)*	*(7)*
Pass-by Reduction - 20% [f]			*(153)*	*(5)*	*(6)*	*(14)*	*(8)*	*(5)*	*(13)*
Subtotal - Restaurant			614	30	24	54	33	21	54
Total - Proposed Project			3,513	82	140	222	174	125	299
Existing Uses to be Removed									
Construction Yard	[c]	180 ksf	40	6	6	12	2	2	4
TOTAL NET NEW PROJECT TRIPS			3,473	76	134	210	172	123	295

Notes

1,000 square feet = ksf

[a] Source: *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017

[b] Trips associated with the existing construction yard were based on empirical counts collected at the Project driveway on Thursday, September 27th, 2018

[c] A 24-hour count was not collected; therefore, the PM peak hour trips are assumed to equate to 10% of the daily trips

[d] Per LADOT's *Transportation Impact Study Guidelines*, the Project Site is located within a 1/4 mile walking distance from a local bus stop; therefore a transit reduction is applied to account for transit usage and walking visitor arrivals

[e] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system (e.g., residents visiting restaurant or retail uses)

[f] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion

Attachment 2
Volume to Capacity Ratios (v/c) and Levels of Service (LOS)

EXISTING WITH PROJECT MITIGATIONS CONDITIONS (YEAR 2018)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions				Existing with Project Mitigation Conditions [a]			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact	V/C	LOS	Change in V/C	Significant Impact
1	Lankershim Boulevard & I-5 NB Ramps	AM	0.501	A	0.506	A	0.005	NO	0.506	A	0.005	NO
		PM	0.409	A	0.414	A	0.005	NO	0.414	A	0.005	NO
2	Lankershim Boulevard & I-5 SB Ramps / Cayuga Avenue	AM	0.485	A	0.486	A	0.001	NO	0.486	A	0.001	NO
		PM	0.345	A	0.348	A	0.003	NO	0.348	A	0.003	NO
3.	Laurel Canyon Boulevard & Roscoe Boulevard	AM	0.717	C	0.726	C	0.009	NO	0.726	C	0.009	NO
		PM	0.707	C	0.711	C	0.004	NO	0.711	C	0.004	NO
4	Webb Avenue & Roscoe Boulevard	AM	0.460	A	0.465	A	0.005	NO	0.465	A	0.005	NO
		PM	0.459	A	0.466	A	0.007	NO	0.466	A	0.007	NO
5	Lankershim Boulevard & Roscoe Boulevard / Tuxford Street	AM	0.757	C	0.763	C	0.006	NO	0.763	C	0.006	NO
		PM	0.667	B	0.675	B	0.008	NO	0.675	B	0.008	NO
6	Laurel Canyon Boulevard & Strathern Street	AM	0.494	A	0.509	A	0.015	NO	0.509	A	0.015	NO
		PM	0.568	A	0.589	A	0.021	NO	0.589	A	0.021	NO
7	Lankershim Boulevard & Webb Avenue & Strathern Street	AM	0.827	D	0.854	D	0.027	YES	0.839	D	0.012	NO
		PM	0.801	D	0.826	D	0.025	YES	0.811	D	0.010	NO
8	Tujunga Avenue & Strathern Street	AM	0.760	C	0.778	C	0.018	NO	0.778	C	0.018	NO
		PM	0.684	B	0.704	C	0.020	NO	0.704	C	0.020	NO
9.	Vineland Avenue & Strathern Street	AM	0.566	A	0.579	A	0.013	NO	0.579	A	0.013	NO
		PM	0.566	A	0.581	A	0.015	NO	0.581	A	0.015	NO
10	Lankershim Boulevard & Stagg Street	AM	0.470	A	0.491	A	0.021	NO	0.491	A	0.021	NO
		PM	0.384	A	0.421	A	0.037	NO	0.421	A	0.037	NO
11.	Lankershim Boulevard & Saticoy Street	AM	0.582	A	0.587	A	0.005	NO	0.587	A	0.005	NO
		PM	0.553	A	0.574	A	0.021	NO	0.574	A	0.021	NO
12.	Tujunga Avenue & Saticoy Street	AM	0.661	B	0.667	B	0.006	NO	0.667	B	0.006	NO
		PM	0.481	A	0.491	A	0.010	NO	0.491	A	0.010	NO

Notes
[a] Project mitigation includes a 1.6% v/c ratio improvement with implementation of TSM improvements targeting Lankershim Boulevard and Strathern Street

FUTURE WITH PROJECT MITIGATIONS CONDITIONS (YEAR 2023)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions				Future with Project Mitigation Conditions [a]			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact	V/C	LOS	Change in V/C	Significant Impact
1	Lankershim Boulevard & I-5 NB Ramps	AM	0.538	A	0.543	A	0.005	NO	0.543	A	0.005	NO
		PM	0.440	A	0.445	A	0.005	NO	0.445	A	0.005	NO
2	Lankershim Boulevard & I-5 SB Ramps / Cayuga Avenue	AM	0.517	A	0.518	A	0.001	NO	0.518	A	0.001	NO
		PM	0.373	A	0.375	A	0.002	NO	0.375	A	0.002	NO
3	Laurel Canyon Boulevard & Roscoe Boulevard	AM	0.767	C	0.776	C	0.009	NO	0.776	C	0.009	NO
		PM	0.748	C	0.752	C	0.004	NO	0.752	C	0.004	NO
4	Webb Avenue & Roscoe Boulevard	AM	0.489	A	0.495	A	0.006	NO	0.495	A	0.006	NO
		PM	0.487	A	0.495	A	0.008	NO	0.495	A	0.008	NO
5	Lankershim Boulevard & Roscoe Boulevard / Tuxford Street	AM	0.803	D	0.809	D	0.006	NO	0.809	D	0.006	NO
		PM	0.715	C	0.723	C	0.007	NO	0.723	C	0.007	NO
6	Laurel Canyon Boulevard & Strathern Street	AM	0.549	A	0.554	A	0.005	NO	0.554	A	0.015	NO
		PM	0.609	B	0.630	B	0.021	NO	0.630	B	0.021	NO
7.	Lankershim Boulevard & Webb Avenue & Strathern Street	AM	0.889	D	0.913	E	0.024	YES	0.889	D	0.009	NO
		PM	0.864	D	0.880	D	0.016	YES	0.865	D	0.001	NO
8	Tujunga Avenue & Strathern Street	AM	0.809	D	0.827	D	0.018	NO	0.827	D	0.018	NO
		PM	0.727	C	0.747	C	0.020	NO	0.747	C	0.020	NO
9	Vineland Avenue & Strathern Street	AM	0.607	B	0.621	B	0.014	NO	0.621	B	0.014	NO
		PM	0.606	E	0.621	E	0.015	NO	0.621	E	0.015	NO
10	Lankershim Boulevard & Stagg Street	AM	0.505	A	0.526	A	0.021	NO	0.526	A	0.021	NO
		PM	0.419	A	0.456	A	0.037	NO	0.456	A	0.037	NO
11	Lankershim Boulevard & Saticoy Street	AM	0.627	B	0.631	B	0.004	NO	0.631	B	0.004	NO
		PM	0.602	B	0.624	B	0.022	NO	0.624	B	0.022	NO
12	Tujunga Avenue & Saticoy Street	AM	0.703	C	0.709	C	0.006	NO	0.709	C	0.006	NO
		PM	0.515	A	0.525	A	0.010	NO	0.525	A	0.010	NO

Notes
[a] Project mitigation includes a 1.5% v/c ratio improvement with implementation of TSM improvements targeting Lankershim Boulevard and Strathern Street

Attachment B

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 7940 Lankershim

Scenario: Project with Project Design Features

Address: 7940 N LANKERSHIM BLVD, 91605



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

( ) Yes ( ) No

Existing Land Use

Land Use Type	Value	Unit
Housing | Single Family		DU

☐ Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant	8	ksf
Housing | Multi-Family	384	DU
Retail | Pharmacy/Drugstore	14	ksf
Retail | High-Turnover Sit-Down Restaurant	8	ksf
Housing | Affordable Housing - Family	48	DU

☐ Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	4,016 Daily Vehicle Trips
0 Daily VMT	29,637 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	4,016 Net Daily Trips
The net increase in daily VMT ≤ 0	29,637 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	22.000 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

6/3/2020

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: 7940 Lankershim

Scenario: Project with Project Design Features

Address: 7940 N LANKERSHIM BLVD, 91605



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	38	
Retail | Pharmacy/Drugstore	14	
Retail | High-Turnover Sit-Down Restaurant	8	
Housing | Affordable Housing - Family	48	

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	No	No
Max Work Based TDM Achieved?	No	No

- A Parking
- B Transit
- C Education & Encouragement
- D Commute Trip Reductions
- E Shared Mobility
- F Bicycle Infrastructure
- G Neighborhood Enhancement

Traffic Calming Improvements: 25 — percent of streets within project with traffic calming improvements

25 — percent of intersections within project with traffic calming improvements

☐ Proposed Prj ☐ Mitigation

Pedestrian Network Improvements: within project and connecting off-site

☑ Proposed Prj ☐ Mitigation

Analysis Results

Proposed Project	With Mitigation
3,422 Daily Vehicle Trips	3,422 Daily Vehicle Trips
25,255 Daily VMT	25,255 Daily VMT
6.5 Household VMT per Capita	6.5 Household VMT per Capita
N/A Work VMT per Employee	N/A Work VMT per Employee

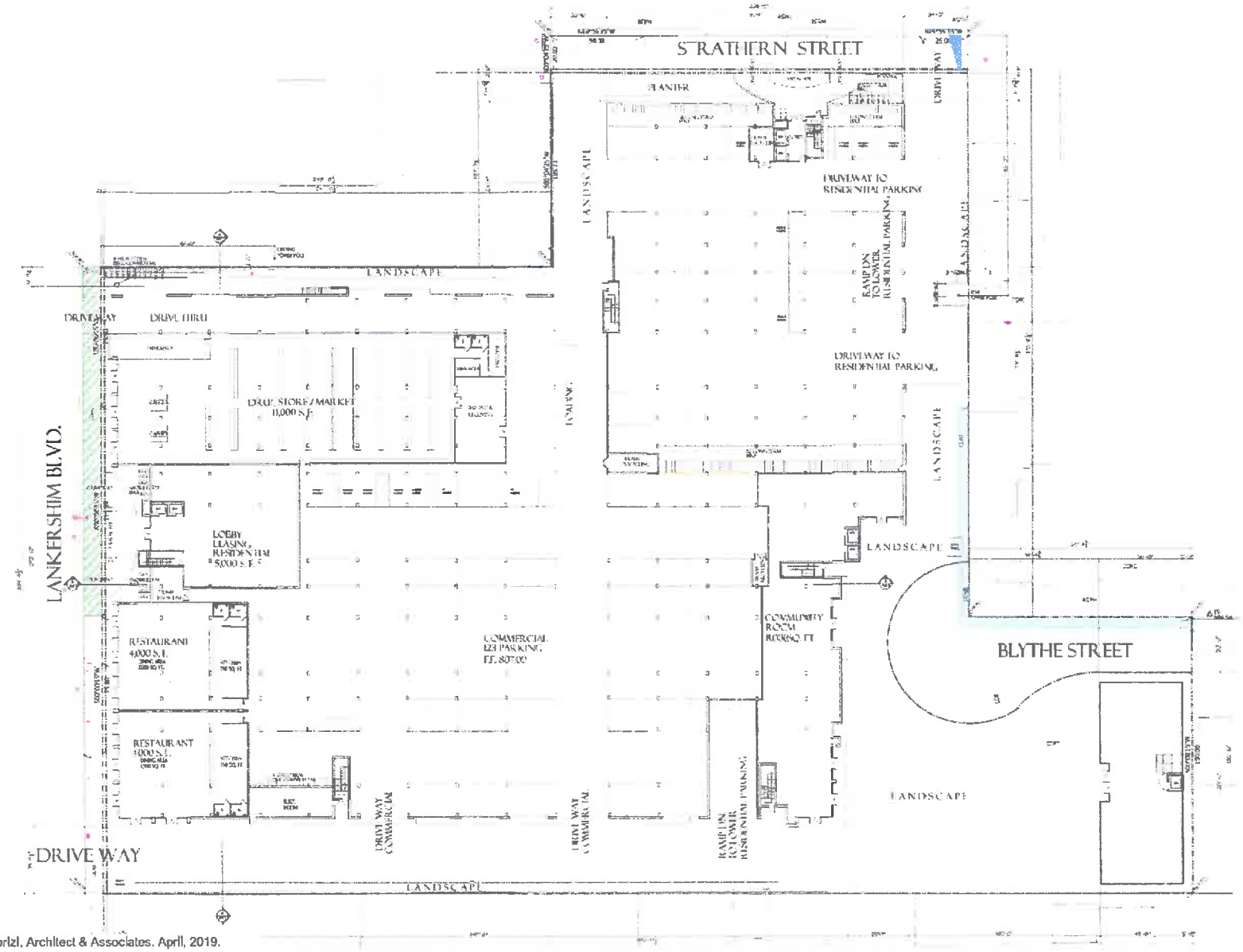
Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 9.2 15% Below APC	**Household: No** Threshold = 9.2 15% Below APC
Work: N/A Threshold = 15.0 15% Below APC	**Work: N/A** Threshold = 15.0 15% Below APC

Measuring the Miles

6/3/2020

Attachment C



Source: Kamran Tabrizi, Architect & Associates. April, 2019.

N
Not to Scale

Attachment D

TABLE 1
VMT EVALUATION SUMMARY

Project		Project with Project Design Features	
Project Information		**VMT Reduction with TDM Strategies**	
Project Land Uses		**Reduced Parking Supply**	
Housing | Multi-Family	384 du	Code Requirement [c]	964
Housing | Affordable - Family	48 du	Parking Supply [d]	541
Retail | Pharmacy/Drugstore	14,000 sf	**VMT Reduction [e]**	**12.500%**
Retail | High-Turnover Restaurant	8,000 sf		
		Bicycle Parking per LAMC	
Total Population	1,016	Yes/No	Yes
Total Employees	60	**VMT Reduction**	**0.625%**
Area Planning Commission	**North Valley**	**Pedestrian Improvements**	
Household VMT Impact Threshold	9.2	Yes/No	Yes
Work VMT Impact Threshold	15.0	**VMT Reduction**	**2.000%**
Travel Behavior Zone	**Suburban Center**	**Total VMT Reduction**	**14.8%**
Maximum TDM Reduction	20%		
Adjusted VMT without TDM Strategies [a]		**Adjusted VMT with Project Design Features**	
Household VMT		**Household VMT**	
Home-Based Work Production	2,828	Home-Based Work Production	2,410
Home-Based Other Production	4,910	Home-Based Other Production	4,184
Total Household VMT	**7,738**	**Total Household VMT**	**6,594**
Total Population	**1,016**	**Total Population**	**1,016**
Household VMT per Capita	**7.6**	**Household VMT per Capita**	**6.5**
Significant Impact	**NO**	**Significant Impact**	**NO**
Work VMT		**Work VMT**	
Home-Based Work Attraction	686	Home-Based Work Attraction	585
Total Work VMT	686	**Total Work VMT**	585
Total Employees	**60**	**Total Employees**	**60**
Work VMT per Employee	**11.4**	**Work VMT per Employee**	**9.8**
Significant Impact	**N/A [b]**	**Significant Impact**	**N/A [b]**

Notes

[a] Adjusted VMT based on calculations from the *City of Los Angeles VMT Calculator Version 1.3* (LADOT, May 2020), as provided in the Attachment, and accounts for the synergy between land uses of a mixed-use development.

[b] The Project is proposing less than 50,000 sf of commercial retail/restaurant uses. Therefore, the commercial component of the Project is considered to be local-serving, and would not increase work VMT. Thus, the Project would not result in a significant work VMT impact.

[c] The Code Parking Requirement is based on the direct application Los Angeles Municipal Code (LAMC) rates without consideration of reduction mechanisims permitted in LAMC.

[d] The Project's Reduced Parking Supply was calculated with consideration of Section 65915(k) of *California Government Code* (California Office of Legislative Counsel for the Legislature, effective January 2017), LAMC Section 12.21.A4(x)(3), and LAMC Section 12.21.A4.

[e] The VMT reduction related to a reduced parking supply reflects the maximum allowable VMT reduction of 12.5%.

MEMORANDUM

TO: Durre Shamsi, Los Angeles Department of Transportation
Shirley Zamora, Los Angeles Department of Transportation

CC: Jessie Barkley, ICF

FROM: Sean Mohn and Emily Wong, P.E.

DATE: June 12, 2020

RE: CEQA Thresholds Analysis for the
7940 Lankershim Boulevard Mixed-Use Project
Los Angeles, California **Ref:** J1659

Gibson Transportation Consulting, Inc. (GTC) analyzed the potential transportation impacts of the 7940 Lankershim Boulevard Mixed-Use Project (Project) located at 7940 Lankershim Boulevard (Project Site) in the Sun Valley community of Los Angeles, California (City) based on *Transportation Assessment Guidelines* (Los Angeles Department of Transportation [LADOT], July 2019) (TAG) and Appendix G of the California Environmental Quality Act (CEQA) Guidelines from the State of California Governor's Office of Planning and Research (OPR). This analysis complies with the City's latest guidelines requiring any development projects that may not be fully entitled prior to July 1, 2020 to be evaluated for transportation impacts in compliance with the CEQA Guidelines in its implementation of Senate Bill 743 (Steinberg, 2013) (SB 743), which are identified in the TAG.

GTC previously analyzed the Project's potential transportation impacts based on the level of service (LOS) methodology in *Transportation Impact Study for the 7940 Lankershim Boulevard Mixed-Use Project* (October 2019) (TIS), which was reviewed and assessed by LADOT in an inter-departmental memorandum to the Los Angeles Department of City Planning (LADCP) dated November 14, 2019. Former LOS-based metrics that evaluated automobile congestion are no longer considered significant environmental impacts in accordance with CEQA Guidelines Section 15064.3. According to LADOT guidance, the TIS satisfies the TAG requirements for non-CEQA analysis.

This memorandum summarizes our analysis.

PROJECT BACKGROUND

The Project proposes the redevelopment of the Project Site with a new seven-story mixed-use development consisting of 432 apartment units, including 48 affordable units, an approximately 14,000 square foot (sf) pharmacy with a drive-through, and approximately 8,000 sf of restaurant use. The Project would also include approximately 18,000 sf on non-trip generating community and recreation room space as an amenity for Project residents.

The construction yard and vacant commercial and office buildings that are currently on-site would be removed as part of the development of the Project.

Parking for the Project would be provided on-site within one subterranean level and one at-grade level. Access to the Project parking facilities would be provided via driveways along Lankershim Boulevard and Strathern Street. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. Bicyclists and pedestrians would access the commercial uses from pedestrian entrances along Lankershim Boulevard and access the residential uses through the residential lobbies on Lankershim Boulevard and Strathern Street. Additional controlled pedestrian access would be provided within the parking garage.

The Project Site is located approximately 0.80 miles south of Interstate 5 and approximately 1.20 miles east of State Route 170. The Project Site is served by Lankershim Boulevard, a designated Boulevard II, and Strathern Street, a designated Avenue II, in *Mobility Plan 2035 – An Element of the General Plan* (LADCP, January 2016) (Mobility Plan).

Transit bus service is provided along Lankershim Boulevard, Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. Additionally, the Project is located approximately 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels from Union Station in downtown Los Angeles to the City of Lancaster. Bicycle lanes are provided on Lankershim Boulevard in the vicinity of the Project Site. In addition, sidewalks provide connectivity to signalized pedestrian crossings adjacent to the Project Site.

The TIS identified a mitigation program that included implementation of and/or contributions toward the following measures aimed at reducing the Project's LOS-based transportation impacts:

- Transportation Demand Management (TDM) program to reduce single occupancy vehicle trips to and from the Project Site during commuter peak hours
- Transportation System Management (TSM) improvements to better facilitate vehicle and pedestrian operations
- Mobility improvement program including a variety of pedestrian and transit infrastructure solutions to promote non-auto travel

These measures would also be effective in addressing transportation impacts based on the latest CEQA guidelines.

CEQA THRESHOLDS

The TAG and CEQA Guidelines Appendix G identifies four CEQA thresholds applicable to the Project[1] for identifying significant transportation impacts in accordance with SB 743:

[1] Threshold T-2.2: Substantially Inducing Additional Automobile Travel, intended for transportation projects that increase vehicular capacity on roadways, does not apply to the Project.

- Threshold T-1: Conflicting with Plans, Programs, Ordinances, or Policies
- Threshold T-2.1: Causing Substantial Vehicle Miles Traveled (VMT)
- Threshold T-3: Substantially Increasing Hazards Due to a Geometric Design Feature or Incompatible Use
- Threshold T-4: Result in Inadequate Emergency Access

THRESHOLD T-1: CONFLICTING WITH PLANS, PROGRAMS, ORDINANCES, OR POLICIES

Threshold T-1 states that a project would result in a significant impact if it conflicts with a program, plan, ordinance, or policy adopted to protect the environment and that addresses the circulation system, including transit, roadways, bicycle, and pedestrian facilities. Table 2.1-1 of the TAG provides the City plans, policies, programs, ordinances and standards relevant in determining project consistency.

As summarized below, the Project is consistent with the City documents listed in Table 2.1-1 of the TAG. Therefore, the Project would not result in a significant impact under Threshold T-1. Detailed discussion of the plans, programs, ordinances, or policies related are provided below.

Mobility Plan

The Mobility Plan combines “complete street” principles with the following five goals that define the City’s mobility priorities:

1. Safety First
2. World Class Infrastructure
3. Access for all Angelenos
4. Collaboration, Communication, and Informed Choices
5. Clean Environments and Healthy Communities

The Project location and site access is consistent with the goals of the Mobility Plan as the Project would be designed to provide safe access for all users. The Project would support the policies of the Mobility Plan as it would promote a balanced transportation system by locating a mixed-use, mixed-income project on an urban infill site within an area containing a mix of commercial, residential, office, and educational uses. The Project would meet the goals of the Mobility Plan and would not interfere with the applicable policies of the Mobility Plan. Thus, the Project would be consistent with the Mobility Plan. The following provides further details of specific policies and programs in the Mobility Plan that were deemed most relevant to the Project.

Policy 1.3 Safe Routes to School – Prioritize the safety of school children on all streets regardless of highway classifications. A number of elementary and middle schools are located within the Project Study Area as defined in the TIS, including Arminta Street Elementary School and Arminta Street Early Education Center, which are located less than 0.25 miles east of the Project Site. Adjacent to the Project Site, both Lankershim Boulevard and Strathern Street have been identified as part of the pedestrian route to the schools as part of the Safe Routes to School

program. Appropriate traffic measures would be installed during construction activities to ensure pedestrian and bicycle safety adjacent to the Project Site. Once operational, the Project driveways would be designed and operated to provide safe pedestrian crossings along Strathern Street and Lankershim Boulevard. Further, the Project mitigation program would include measures to improve pedestrian safety throughout the Study Area with the implementation of mobility improvements, such as the installation of continental crosswalks and the installation/maintenance of sidewalks, as well as TSM improvements, such as upgrades of existing pedestrian push buttons to accessible pedestrian signals. Therefore, the Project would not conflict with Mobility Plan Policy 1.3.

Policy 2.3 Pedestrian Infrastructure – Recognize walking as a component of every trip and ensure high quality pedestrian access in all site planning and public right-of-way modifications to provide a safe and comfortable walking environment. Pedestrian access to the commercial uses would be provided via pedestrian entrances along Lankershim Boulevard and residential access would be provided via residential lobbies along Lankershim Boulevard and Strathern Street. The Project includes the pedestrian-friendly landscaping and design to enhance the pedestrian experience. The Project would also improve pedestrian facilities throughout the Project area with implementation of the mitigation program's mobility improvements, which include the installation of continental crosswalks and the installation/maintenance of sidewalks, and TSM improvements, which include the upgrades of existing pedestrian push buttons to accessible pedestrian signals. In addition, the driveways would be designed to provide safe pedestrian crossings, as well as adequate pedestrian flow between driveways along Lankershim Boulevard. Therefore, the Project would not conflict with Mobility Plan Policy 2.3.

Policy 2.5 Transit Network – Improve the performance and reliability of existing and future bus service. As detailed in Table 4 of the TIS, the transit system serving the Project Site has available capacity for 530 additional person-transit trips during the morning peak hour and 569 additional person-transit trips during the afternoon peak hour. The Project would generate approximately 41 net new transit trips during the morning peak hour and 56 net new transit trips during the afternoon peak hour, or approximately 10% of the available capacity during the morning or afternoon peak hours. Furthermore, Los Angeles County voters approved Measure R, a half-cent sales tax increase to finance new transportation projects and accelerate projects already in progress, in 2008 and Measure M, an additional half-cent sales tax increase to fund transportation projects, in 2016. As such, the Project's net increase in transit trips would be partially offset by improvements to transit service in the Project area. In addition, as part of the mitigation program, the Project would contribute funding to upgrade bus stops serving the Project Site to encourage the transit ridership, which could include the installation of bus shelters and bus benches. Accordingly, the Project would not cause the capacity of the transit system to be substantially exceeded and the Project would not conflict with Mobility Plan Policy 2.5.

Policy 2.6 Bicycle Networks – Provide safe, convenient, and comfortable local and regional bicycling facilities for people of all types and abilities. As described in detail in Chapter 2 of the TIS, Lankershim Boulevard adjacent to the Project Site provides marked bicycle lanes and is included as part of the Mobility Plan's Bicycle Network. The Project driveways would be designed to minimize conflicts to bicyclists along Lankershim Boulevard, including providing right-turn only ingress and egress maneuvers. Bicyclists would have the same access opportunities to the Project Site as pedestrians. Bicycle parking requirements per Los Angeles Municipal Code (LAMC) Section 12.21-A,16(a) include short-term and long-term parking. Short-term bicycle

parking is characterized by bicycle racks that support the bicycle frame at two points and long-term bicycle parking is characterized by an enclosure protecting all sides from inclement weather and secured from the general public. In accordance with the requirements of LAMC Section 12.21-A, 16(a), the Project would provide 224 bicycle parking spaces, including 30 short-term and 194 long-term bicycle parking spaces. Therefore, the Project would not conflict with Mobility Plan Policy 2.6.

Policy 2.9 Multiple Networks – Consider the role of each enhanced network (i.e., Transit Enhanced Network, Pedestrian Enhanced Districts, and Bicycle Enhanced Network) when designed a street that includes multiple nodes. As discussed above in the analyses for Policies 2.5 and 2.6, the Project would not conflict with Mobility Plan policies related to transit and bicycle networks. As described in the TIS, adjacent to the Project Site, Lankershim Boulevard is identified as part of both the Transit Enhanced Network and Bicycle Network, and both Lankershim Boulevard and Strathern Street are identified as part of the Pedestrian Enhanced Network. As detailed in the TIS, as part of the mitigation program, the Project would contribute funding to upgrade existing bus stops that serve the Project Site, which may include the installation of bus stop shelters and bus stop benches. With respect to pedestrian facilities, pedestrian access would be provided via sidewalks along Lankershim Boulevard and Strathern Street. Additionally, as noted above, the sidewalk along Strathern Street would be installed and improved to meet City standards. Bicycles would have the same access opportunities as pedestrians and the Project would provide 224 bicycle parking spaces. Project access locations would be required to conform to City standards and would be designed to provide adequate sight distance, sidewalks, and/or pedestrian movement controls that would meet the City's requirements to protect pedestrian safety. The Project would provide a direct and safe path of travel with minimal obstructions to pedestrian movement within and adjacent to the Project Site. Therefore, the Project would not conflict with Mobility Plan policies related to the Transit Enhanced Network, Pedestrian Enhanced Districts, or Bicycle Enhanced Network.

Policy 2.10 Loading Area – Facilitate the provision of adequate on and off-street loading areas. The Project would maintain its existing loading area on-site. As such, delivery trucks would not encroach on or block the public right-of-way. Therefore, the Project would not conflict with Mobility Plan Policy 2.10.

Policy 3.2 People with Disabilities – Accommodate the needs of people with disabilities when modifying or installing infrastructure in the public right-of-way. Both vehicular and pedestrian access to the Project from the public right-of-way would be designed to meet the standards of the American with Disabilities Act (ADA) requirements. In addition, the Project's mitigation program could include improvements to Strathern Street to provide ADA compliant sidewalks, as well as the upgrade of existing pedestrian push buttons to accessible pedestrian signals at four intersections. Therefore, the Project would not conflict with Mobility Plan Policy 3.2.

Program PL.1. Program PL.1 requires driveway access to buildings from non-arterial streets or alleys (where feasible) in order to minimize interference with pedestrian access and vehicular movement. Due to the location of the Project Site, vehicular driveway access from a non-arterial street or alley would not be feasible. However, the driveways along Lankershim Boulevard and Strathern Street would be designed to minimize potential safety conflicts with bicyclists and pedestrians, and adequate visibility would be provided. Therefore, the Project would not conflict with Mobility Plan Program PL.1.

Program PK.10. Program PK.10 directs the City to establish an incentive program to encourage projects to retrofit parking lots, structures, and driveways to include pedestrian design features. As discussed above, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses that would enhance the pedestrian experience. Therefore, the Project would not conflict with Mobility Plan Program PK.10.

Plan for a Healthy Los Angeles

Plan for a Healthy Los Angeles: A Health and Wellness Element of the General Plan (LADCP, March 2015) (Plan for a Healthy Los Angeles) introduces guidelines for the City to follow to enhance the City's position as a regional leader in health and equity, encourage healthy design and equitable access, and increase awareness of equity and environmental issues.

The Project supports healthy lifestyles by reducing single-occupant vehicle trips by virtue of its location near to abundant high-quality and high-frequency transit options and its provision of a TDM program. As part of the mitigation program, the Project would also contribute to the implementation of mobility improvements to promote non-automobile travel throughout the Project area. The Project does not interfere with any other policies recommended by the plan. Therefore, the Project is consistent with Plan for a Healthy Los Angeles.

Land Use Element of the General Plan

The City General Plan's Land Use Element contains 35 Community Plans that establish specific goals and strategies for the various neighborhoods across Los Angeles. This Project falls within the boundaries of the *Sun Valley-La Tuna Canyon Community Plan* (City, 1999).

The Project would locate new housing to reduce vehicular trips while increasing accessibility to services and facilities. The Project would be developed at an urban, infill site in proximity to existing residential uses, businesses, services, and numerous transportation options. The new residential population would have access to commercial development on-site as well as retail, restaurant, and other services within walking distance. Furthermore, the Project would include pedestrian-friendly landscaping and design, new perimeter landscaping and street trees, streetscape improvements, and street level commercial uses to enhance the pedestrian experience. These features, as well as the Project's proposed TDM program and mobility improvements, would encourage the use of alternative transportation modes. Therefore, the Project would be consistent with the objectives of the Community Plan.

LAMC Section 12.21-A.16

LAMC Section 12.21.A.16 details the bicycle parking requirements for new developments. In accordance with the requirements of the LAMC, the Project would provide a total 224 bicycle parking spaces, including 30 short-term and 194 long-term bicycle parking spaces.

LAMC Section 12.26-J

LAMC Section 12.26J, the TDM Ordinance (1993), establishes TDM requirements for projects with at least 25,000 sf of non-residential gross floor area. The Project proposes approximately 22,000 sf of non-residential gross floor area and, therefore, the TDM Ordinance does not apply.

LAMC Section 12.37

LAMC Section 12.37 pertains to development or expansion of buildings along Highways and Collector Streets and applies to streets designated Boulevard I, Boulevard II, Avenue I, Avenue II, and Avenue III in the Mobility Plan. Lankershim Boulevard is a designated Boulevard II and Strathern Street is a designated Avenue II in the Mobility Plan. Per the Mobility Plan, Lankershim Boulevard adjacent to the Project Site requires a 40-foot half-width roadway within a 55-foot half-width right-of-way and Strathern Street adjacent to the Project Site requires a 28-foot half-width roadway within a 46-foot half-width right-of-way. Lankershim Boulevard currently meets the standards of a designated Boulevard II. Strathern Street would be improved adjacent to the Project Site with development of the Project to meet the street and right-of-way standards of a designated Avenue II. Thus, the Project would be consistent with the requirements of LAMC Section 12.37.

Vision Zero

The primary goal of Vision Zero is to eliminate traffic deaths in the City by 2025. Vision Zero identifies the High Injury Network, a network of streets where strategic investments will have the biggest impact in reducing death and severe injury. Annually developed Action Plans emphasize creating safe streets for all users, developing a culture of safety, adopting policy measures to promote safety, and using data to inform the most effective solutions. The information from this review comes from *Vision Zero Los Angeles: 2018 Action Plan + Progress Report* (City, 2018) and LADOT's list of active Vision Zero projects maintained at www.ladotlivablestreets.org.

Lankershim Boulevard and Strathern Street adjacent to the Project Site have been identified as part of the High Injury Network. Neither street has been identified as a Priority Corridor, and no improvements are currently planned along either corridor adjacent to the Project Site. Nevertheless, the Project would not preclude future Vision Zero safety improvements by the City. Thus, the Project does not conflict with Vision Zero.

Citywide Design Guidelines for Residential, Commercial, and Industrial Development

Citywide Design Guidelines (LADCP Urban Design Studio, October 2019), identifies urban design principles to guide architects and developers in designing high-quality projects that meet the City's functional, aesthetic, and policy objectives and help foster a sense of community. *Citywide Design Guidelines* is organized around six design objectives. *City of Los Angeles Urban Design Principles* (LADCP, 2011) aims to improve mobility in the City through travel mode choices.

The Project would provide a mix of land uses in close proximity to a broad range of land uses and transit options within walking distance, which would stimulate pedestrian activity. The Project would be integrated within the surrounding sidewalks through new ground level commercial uses and amenities, including new street trees and landscaping. Pedestrian connections would be provided throughout the Project Site, connecting residential and common open space uses. In addition, all loading activities would not occur directly within the public right-of-way. Therefore, the Project would align with *Citywide Design Guidelines* to provide a safe, comfortable, and accessible experience for all transportation modes.

Walkability Checklist

Walkability Checklist – Guidance for Entitlement Review (LADCP, November 2008) (Walkability Checklist) serves as a guide for enhancing pedestrian movement, access, comfort, and safety to contribute to the overall walkability of the City. Transportation-applicable topics include:

- Sidewalks
- Crosswalks/Street Crossings
- On-Street Parking
- Building Orientation
- Off-Street Parking and Driveways

The Project would provide continuous and adequate sidewalks along the Project Site, enhance pedestrian amenities through landscape elements to provide adequate shade and habitat to for a more comfortable mobility environment for pedestrians. Pedestrian connections would be provided throughout the Project Site, connecting residential and common open space uses. These features support the Walkability Checklist recommendations regarding the pedestrian experience.

LADOT Transportation Technology Strategy – Urban Mobility in a Digital Age

The LADOT transportation technology strategy, based on *Urban Mobility in a Digital Age: A Transportation Technology Strategy for Los Angeles* (Ashley Z. Hand, August 2016), is designed to ensure the City stays on top of emerging transportation technologies as both a regulator and a transportation service provider. This strategy document includes the following goals:

- Data as a Service: Providing and receiving real-time data to improve the City's ability to serve transportation needs

- Mobility as a Service: Improving the experience of mobility consumers by encouraging partnerships across different modes and fostering clear communication between transportation service providers

- Infrastructure as a Service: Re-thinking how the City pays for, maintains, and operates public, physical infrastructure to provide more transparency

LADOT also developed *Technology Action Plan* (2019) to realize the vision developed in Transportation Technology Strategy. Key action steps include:

- Develop a comprehensive digital inventory of the City's signs, parking meters, curb paint, and regulatory tools
- Continue to develop and maintain the Automated Traffic Surveillance and Control system
- Use active management strategies to dynamically monitor and control things like speed limits, parking availability, detour routes, etc.
- Develop a mobility data specification around which software tools can be developed and data can be accessed
- Develop a transportation tax model that minimizes data collection and retention in favor of user privacy

The Project does not interfere with any of the general policy recommendations, pilot proposals, or action steps set forth in these documents.

Mobility Hub Reader's Guide

Mobility Hubs: A Reader's Guide (LADCP, 2016) provides guidance for enhancing transportation connections and multi-modal improvements in proximity to new or existing transit stations. It specifically focuses on enhancing bicycle connections, providing vehicle sharing services, improving bus infrastructure, providing real-time transit and wayfinding information, and enhancing walkability and pedestrian connections.

The Project adopts several of these components as part of the TDM program, in addition to providing LAMC-required short-term and long-term bicycle parking that both facilitates and encourages bicycling in and around the Project.

LADOT Manual of Policies and Procedures (Design Standards)

Manual of Policies and Procedures (LADOT, December 2008) provides plans and requirements for traffic infrastructure features in the City such as roadway striping and other markings, signage, on-street parking, crosswalks, and turn lanes, as well as the design of driveways for development projects. The Project would not conflict with any of the policies and procedures contained in this document. Additionally, the Project driveways would comply with all applicable LADOT design standards.

Cumulative Analysis

In addition to potential Project-specific impacts, the TAG requires that the Project be reviewed in combination with nearby Related Projects to determine if there may be a cumulatively significant impact resulting from inconsistency with a particular program, plan, policy, or ordinance. In accordance with the TAG, the cumulative analysis must include consideration of any Related Projects within 0.25 miles of the Project Site and any transportation system improvements in the vicinity. The TIS considered Related Projects located within a 1.5-mile radius of the Project Site. None of the Related Projects identified in the TIS are located within 0.25 miles of the Project Site. Nevertheless, each of the Related Projects considered in this cumulative analysis of consistency with programs, plans, policies, and ordinances would be separately reviewed and approved by the City, including a check for their consistency with applicable policies. Collectively, the Project and the Related Projects add high-density development in a major commercial area with high-quality transit options and high levels of pedestrian activity. Therefore, the Project, together with the Related Projects identified in the TIS, would neither create inconsistencies nor result in cumulative impacts with respect to the identified programs, plans, policies, and ordinances.

THRESHOLD T-2.1 – CAUSING SUBSTANTIAL VMT

The VMT metric is intended to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. This encourages development that shortens the distance between housing, jobs, and services, increases the availability of affordable housing options in proximity to public transit, offers attractive non-vehicular transportation alternatives, provides strong transportation demand management programs, and promotes walking and bicycling trips.

VMT Impact Thresholds

OPR has found that, in most instances, a VMT per capita or per employee that is 15% (or more) below that of existing development is a reasonable and achievable threshold in determining significant transportation impacts under CEQA. CEQA allows lead agencies to set or apply their own significance thresholds.

The TAG identifies significance thresholds to apply to development projects when evaluating potential VMT impacts consistent with the OPR's CEQA guidance. Threshold T-2.1 (Causing Substantial Vehicle Miles Traveled) of the TAG states that a residential project would result in a significant VMT impact if it would generate household VMT per capita exceeding 15% below the existing average household VMT per capita for the Area Planning Commission (APC) area in which it is located. Similarly, an office project would result in a significant VMT impact if it would generate work VMT per employee exceeding 15% below the existing average work VMT per employee for the APC area in which it's located.

Residents contribute to household VMT while employees (including retail and restaurant employees) contribute to work VMT. The TAG identifies a daily household VMT per capita impact threshold of 9.2 and a daily work VMT per employee impact threshold of 15.0 for the North Valley APC, in which the Project is located. Therefore, should the Project's average household VMT per

capita be equal to or lower than 9.2 and average work VMT per employee be equal to or lower than 15.0, the Project's overall VMT impact would be less than significant.

VMT Analysis Methodology

LADOT developed the *City of Los Angeles VMT Calculator Version 1.3* (May 2020) (VMT Calculator) to estimate project-specific daily household VMT per capita and daily work VMT per employee for developments within City limits, which are based on the following types of one-way trips:

- Home-Based Work Production: origin trips from a residential use to a workplace destination
- Home-Based Other Production: origin trips from a residential use to a non-workplace destination (e.g., retail, restaurant, etc.)
- Home-Based Work Attraction: destination trips to a workplace originating from a residential use

As detailed in *City of Los Angeles VMT Calculator Documentation* (LADOT and LADCP, May 2020), the household VMT per capita threshold applies to home-based work production and home-based other production trips, and the work VMT per employee threshold applies to home-based work attraction trips, as the location and characteristics of residences and workplaces are often the main drivers of VMT, as detailed in Appendix 1 of *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR, December 2018).

Other types of trips included in the VMT Calculator include Non-Home-Based Other Production (trips to a non-residential destination originating from a non-residential use), Home-Based Other Attraction (trips to a non-workplace destination originating from a residential use), and Non-Home-Based Other Attraction (trips to a non-residential destination originating from a non-residential use), are not factored into the VMT per capita and VMT per employee thresholds as those trips are typically localized and are assumed to have a negligible effect on the VMT impact assessment. However, those trips are factored into the calculation of total project VMT for LADOT screening purposes when determining if further VMT analysis for a project would be required.

The methodology in determining VMT based on the VMT Calculator is consistent with the TAG.

Travel Behavior Zone (TBZ). The City developed TBZ categories to determine the magnitude of VMT and vehicle trip reductions that could be achieved through TDM strategies. As detailed in *City of Los Angeles VMT Calculator Documentation*, the development of the TBZs considered the population density, land use density, intersection density, and proximity to transit of each Census tract in the City and are categorized as follows:

1. *Suburban (Zone 1): Very low-density primarily centered around single-family homes and minimally connected street network.*
2. *Suburban Center (Zone 2): Low-density developments with a mix of residential and commercial uses with larger blocks and lower intersection density.*

3. *Compact Infill (Zone 3): Higher density neighborhoods that include multi-story buildings and well-connected streets.*
4. *Urban (Zone 4): High-density neighborhoods characterized by multi-story buildings with a dense road network.*

The VMT Calculator determines a project's TBZ based on the latitude and longitude of the project address.

Mixed-Use Development Methodology. As detailed in *City of Los Angeles VMT Calculator Documentation*, the VMT Calculator accounts for the interaction of land uses within a mixed-use development and considers the following sociodemographic, land use, and built environment factors for a project area:

- The project's jobs/housing balance
- Land use density of the project
- Transportation network connectivity
- Availability of and proximity to transit
- Proximity to retail and other destinations
- Vehicle ownership rates
- Household size

Trip Lengths. The VMT Calculator determines a project's VMT based on trip length information from the City's Travel Demand Forecasting (TDF) Model. The TDF Model considers the traffic analysis zones within 0.125 miles of where a project is located to determine the trip lengths and trip types, which factor into the calculation of a project's VMT.

Population and Employment Assumptions. As previously stated, the VMT thresholds identified in the TAG are based on household VMT per capita and work VMT per employee. Thus, the VMT Calculator contains population assumptions developed based on Census data for the City and employment assumptions derived from multiple data sources, including *2012 Developer Fee Justification Study* (Los Angeles Unified School District, 2012), the San Diego Association of Governments Activity Based Model, *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012), the US Department of Energy, and other modeling resources. A summary of population and employment assumptions for various land uses is provided in Table 1 of *City of Los Angeles VMT Calculator Documentation.*

TDM Measures. Additionally, the VMT Calculator measures the reduction in VMT resulting from a project's incorporation of TDM strategies as project design features or mitigation measures. The following seven categories of TDM strategies are included in the VMT Calculator:

1. Parking
2. Transit
3. Education and Encouragement
4. Commute Trip Reductions
5. Shared Mobility
6. Bicycle Infrastructure
7. Neighborhood Enhancement

TDM strategies within each of these categories have been empirically demonstrated to reduce trip-making or mode choice in such a way as to reduce VMT, as documented in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association, 2010). As detailed in *Transportation Demand Management Strategies in LA VMT Calculator* (LADOT, November 2019), the effectiveness of the TDM strategies applied in the VMT Calculator is based on the research presented in *Quantifying Greenhouse Gas Mitigation Measures,* as well as localized data. To ensure that the cumulative effectiveness of the applied TDM strategies is not overstated, a multiplicative dampening formula is applied to account for potential overlaps in users of each strategy.

Project VMT Analysis

The VMT Calculator was used to evaluate Project VMT and compare it to the VMT impact criteria. The VMT Calculator was set up with the Project's four land uses and their respective sizes as the primary input. Based on the Project's proposed land uses and location, the following assumptions were identified in the VMT Calculator:

- Total Population: 1,016
- Total Employees: 60
- APC: North Valley
- TBZ: Suburban Center
- Maximum VMT Reduction: 20%

Table 1 summarizes the Project VMT evaluation. The detailed worksheets from the VMT Calculator are provided in the Attachment.

Commercial VMT. As previously detailed, the Project proposes a total of approximately 22,000 sf in commercial retail and restaurant floor area and would not exceed the LADOT threshold of 50,000 sf of net retail uses to warrant further VMT analysis. In addition, the proposed commercial uses would be local-serving and, therefore, would not lead to increased VMT. Therefore, the proposed commercial uses of the Project would not result in a significant VMT impact.

Project VMT. It should be noted that as part of the Project design, measures would be implemented to reduce the number of single occupancy vehicle trips to the Project Site. For the purposes of this analysis, the following Project design features were accounted for in the VMT evaluation:

- Reduced Parking Supply: Reduced parking supply to provide less parking than the direct LAMC requirement without consideration of additional parking reductions mechanisms (i.e., Bicycle Parking Ordinance, Specific Plan or Enterprise Zone areas, etc.)
- Include Bike Parking per LAMC: Provision of short-term and long-term bicycle parking spaces in accordance with the LAMC.

- Pedestrian Network Improvements: Pedestrian improvements internal to the Project Site that encourage walking and connect to off-site pedestrian facilities

As shown in Table 1[2], with application of the TDM strategies listed above, the VMT Calculator estimates that the Project would generate 6,594 total household VMT. Thus, based on the population assumptions above, the Project would generate an average household VMT per capita of 6.5, which would not exceed the significance thresholds for the North Valley APC (9.2 household VMT per capita). Therefore, the Project would not result in a significant household VMT impact and no mitigation measures would be required.

Although no longer required for mitigation, the Project would continue to implement measures identified in the TIS, as previously detailed, that would further reduce Project VMT including the implementation of a comprehensive TDM program to reduce single occupancy vehicle trips to and from the Project Site, contributions toward TSM improvements to better facilitate pedestrian operations, and off-site mobility improvements to encourage non-auto travel.

Cumulative Analysis. A development project would have a cumulative VMT impact if it were deemed inconsistent with *The 2016-2040 Regional Transportation Plan / Sustainable Communities Strategy* (Southern California Association of Governments, April 2016) (RTP / SCS), the regional plan to reach state air quality and greenhouse gas reduction targets. However, based on the TAG, a project that does not result in a significant VMT impact by applying an efficiency-based impact threshold (i.e., using the City's methodology described above), would be in alignment with the RTP/SCS and, therefore, would not result in a cumulative VMT impact. Therefore, based on the conclusions above, the Project would not result in a significant cumulative VMT impact.

In addition, the Project is located within a Transit Priority Area as defined by the City and a High-Quality Transit Area as defined by the RTP/SCS. The Project's specific location in close proximity to high-quality transit and other off-site retail, restaurant, commercial, and residential areas, along with its highly walkable environment, support the conclusion that the Project would achieve a VMT reduction greater than the average for the area, as concluded in the Project VMT analysis provided above.

THRESHOLD T-3: SUBSTANTIALLY INCREASING HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE OR INCOMPATIBLE USE

Threshold T-3 requires that a project undergo further evaluation if it proposes new access points or modifications along the public right-of-way (i.e., street dedications). A review of Project access points, internal circulation, and parking access would determine if the Project would substantially increase hazards due to geometric design features, including safety, operational, or capacity impacts. As further detailed below, based on the Project site plan review and design assumptions, the Project does not present any geometric design hazards related to traffic movement, mobility, or pedestrian accessibility, and no significant impact would occur with respect to Threshold T-3.

[2] As noted in Table 1, without application of any TDM strategies, the Project would generate average household VMT per capita of 7.6, thus falling below the North Valley APC significance threshold (9.2 household VMT per capita). Therefore, implementation of TDM strategies as either project design features or mitigation is not required for the Project.

Vehicles

As previously detailed, vehicular access to the parking facilities would be provided via driveways along Lankershim Boulevard, a designated Boulevard II, and Strathern Street, a designated Avenue II. The driveway on Strathern Street would provide access to the residential uses, while the driveway on Lankershim Boulevard would provide access to both the residential and commercial uses on-site. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. All driveways would be designed in accordance with City standards.

The driveway on Strathern Street would provide full access and accommodate both left- and right-turn ingress and egress maneuvers. Given the adjacency to existing intersections and the level of adjacent street traffic, the commercial/residential and pharmacy drive-through driveways on Lankershim Boulevard would provide limited access and accommodate right-turn only ingress and egress maneuvers to minimize potential vehicular conflicts along Lankershim Boulevard. The driveways would also be located more than 250 feet apart to minimize vehicular conflicts between the two driveways. The pharmacy drive-through would be designed to minimize queuing and limit spillover on the adjacent street system. In addition, all truck loading and unloading activity would occur on-site, and no vehicles would reverse into the Project Site from the public right-of-way. Therefore, as detailed above, the vehicular access and internal circulation plan for the Project would be designed to minimize vehicular conflicts, and safety impacts to the abutting street system are not anticipated.

Pedestrians & Bicycles

Bicycle and pedestrian access to the commercial uses would be provided via pedestrian entrances along Lankershim Boulevard and residential access would be provided via residential lobbies along Lankershim Boulevard and Strathern Street. Both Lankershim Boulevard and Strathern Street have been identified as part of Vision Zero's High Injury Network and the Mobility Plan's Pedestrian Enhanced Network. The Project would improve pedestrian facilities adjacent to the Project Site, as well as throughout the Project area as part of the Project mitigation program's mobility improvements, which include the installation of continental crosswalks and the installation/maintenance of sidewalks. In addition, the driveways would be designed to provide safe pedestrian crossings, as well as adequate pedestrian flow between driveways along Lankershim Boulevard.

The driveways would cross the existing bicycle lane on Lankershim Boulevard, which carries fewer than 10 bicyclists during each peak hour. Therefore, given the limited access and minimal bicycle traffic, the driveway would not pose a safety hazard to bicyclists.

Cumulative Analysis

The TAG indicates that cumulative impacts for Threshold T-3 require a review of related projects with access points proposed along the same block(s) as a proposed project in order to determine the combined impact and the proposed project's contribution. None of the Related Projects

identified in the TIS provide access along the same block as the Project. Thus, the Project and Related Projects would not result in a cumulative impact under Threshold T-3.

THRESHOLD T-4: RESULT IN INADEQUATE EMERGENCY ACCESS

Threshold T-4 requires the analysis of a project's potential impact on emergency access based on a review of potential impediments to traffic flows and safety within the public right-of-way as a result of a project's site access and circulation plan and construction activities.

The Project Site is located in urban area that is well served by a roadway network. Long-term emergency access would continue to be provided with development of the Project. The Project driveway and building configurations would comply with applicable fire code requirements for emergency evacuation, including proper emergency exits for residents, employees, and patrons. The Project site access and circulation plans would be subject to review and approval by the Los Angeles Fire Department.

As detailed in the TIS, construction activities are expected to be primarily contained within the Project Site boundaries. Encroachments into the public right-of-way (e.g., sidewalks) adjacent to the Project Site along Strathern Street are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained on both Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded.

Therefore, Project impacts related to emergency access would be less than significant and no mitigation would be required.

Cumulative Analysis

Cumulative impacts under Threshold T-4 requires any driveway and/or circulation modifications proposed within or adjacent to the Related Projects meet all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access. Cumulative impacts on traffic associated with construction (e.g., an intermittent reduction in street and intersection operating capacity) are typically considered adverse in the short-term, but not a significant impact.

Each Related Project would be required to comply with City requirements regarding haul routes and would implement mitigation measures and/or include project characteristics, such as traffic controls and safety procedures, as part of a Construction Management Plan, to reduce potential traffic impacts during construction.

As detailed in the TIS, cumulative traffic impacts, with consideration of trips generated by the Related Projects, would be less than significant with implementation of the Project's mitigation program. Also, pursuant to California Vehicle Code Section 21806, emergency vehicles are generally able to avoid traffic congestion in the event of an emergency by using sirens to clear a path of travel or by driving in the lanes of opposing traffic.

Therefore, the Project and the Related Projects would not result in a significant impact to emergency access, and the cumulative impacts would be considered less than significant.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) ANALYSIS

Recently, LADOT issued *Interim Guidance for Freeway Safety Analysis* (LADOT, May 1, 2020) (City Freeway Guidance) identifying City requirements for a CEQA safety analysis of Caltrans facilities as part of a transportation assessment.

Methodology

The City Freeway Guidance relates to the identification of potential safety impacts at freeway off-ramps as a result of increased traffic from development projects. It provides a methodology and significance criteria for assessing whether additional vehicle queueing at off-ramps could result in a safety impact due to speed differentials between the mainline freeway lanes and the queued vehicles at the off-ramp.

Based on the City Freeway Guidance, a transportation assessment for a development project must include analysis of any freeway off-ramp where the project adds 25 or more peak hour trips. A project would result in a significant impact at such a ramp if each of the following three criteria were met:

1. Under a scenario analyzing future conditions upon project buildout, with project traffic included, the off-ramp queue would extend to the mainline freeway lanes[3].

2. A project would contribute at least two vehicle lengths (50 feet, assuming 25 feet per vehicle) to the queue.

3. The average speed of mainline freeway traffic adjacent to the off-ramp during the analyzed peak hour(s) is greater than 30 miles per hour.

Should a significant impact be identified, mitigation measures to be considered include TDM strategies to reduce a project's trip generation, investments in active transportation or transit system infrastructure to reduce a project's trip generation, changes to the traffic signal timing or lane assignments at the ramp intersection, or physical changes to the off-ramp. Any physical change to the ramp would have to improve safety, not induce greater VMT, and not result in secondary environmental impacts.

Analysis

As determined in the screening evaluation prepared as part of the MOU and detailed in Chapter 4 of the TIS, the Project would not add 25 or more peak hour trips to any freeway off-ramp

[3] If an auxiliary lane is provided on the freeway, then half the length of the auxiliary lane is added to the ramp storage length.

locations. Therefore, no further Caltrans freeway off-ramp queuing analysis is required. Furthermore, the Project would not result in a significant safety impact, and no corrective measures at any freeway off-ramps would be required.

CONCLUSION

The Project is consistent with the City's plans, programs, ordinances, and policies and would not generate any VMT, geometric design hazard, or emergency access impacts. Therefore, the Project would not result in a significant and unavoidable CEQA impact. In addition, the Project would not result in a significant safety impact on any Caltrans freeway off-ramp facilities.

TABLE 1
VMT EVALUATION SUMMARY

Project		Project with Project Design Features	
Project Information		**VMT Reduction with TDM Strategies**	
Project Land Uses		**Reduced Parking Supply**	
Housing | Multi-Family	384 du	Code Requirement [c]	964
Housing | Affordable - Family	48 du	Parking Supply [d]	541
Retail | Pharmacy/Drugstore	14,000 sf	**VMT Reduction** [e]	**12.500%**
Retail | High-Turnover Restaurant	8,000 sf		
		Bicycle Parking per LAMC	
Total Population	1,016	Yes/No	Yes
Total Employees	60	**VMT Reduction**	**0.625%**
Area Planning Commission	**North Valley**	**Pedestrian Improvements**	
Household VMT Impact Threshold	9.2	Yes/No	Yes
Work VMT Impact Threshold	15.0	**VMT Reduction**	**2.000%**
Travel Behavior Zone	**Suburban Center**	**Total VMT Reduction**	**14.8%**
Maximum TDM Reduction	20%		
Adjusted VMT without TDM Strategies [a]		**Adjusted VMT with Project Design Features**	
Household VMT		**Household VMT**	
Home-Based Work Production	2,828	Home-Based Work Production	2,410
Home-Based Other Production	4,910	Home-Based Other Production	4,184
Total Household VMT	**7,738**	**Total Household VMT**	**6,594**
Total Population	**1,016**	**Total Population**	**1,016**
Household VMT per Capita	**7.6**	**Household VMT per Capita**	**6.5**
Significant Impact	**NO**	**Significant Impact**	**NO**
Work VMT		**Work VMT**	
Home-Based Work Attraction	686	Home-Based Work Attraction	585
Total Work VMT	686	**Total Work VMT**	585
Total Employees	**60**	**Total Employees**	**60**
Work VMT per Employee	**11.4**	**Work VMT per Employee**	**9.8**
Significant Impact	**N/A** [b]	**Significant Impact**	**N/A** [b]

Notes

[a] Adjusted VMT based on calculations from the *City of Los Angeles VMT Calculator Version 1.3* (LADOT, May 2020), as provided in the Attachment, and accounts for the synergy between land uses of a mixed-use development.

[b] The Project is proposing less than 50,000 sf of commercial retail/restaurant uses. Therefore, the commercial component of the Project is considered to be local-serving, and would not increase work VMT. Thus, the Project would not result in a significant work VMT impact.

[c] The Code Parking Requirement is based on the direct application Los Angeles Municipal Code (LAMC) rates without consideration of reduction mechanisims permitted in LAMC.

[d] The Project's Reduced Parking Supply was calculated with consideration of Section 65915(k) of *California Government Code* (California Office of Legislative Counsel for the Legislature, effective January 2017), LAMC Section 12.21.A4(x)(3), and LAMC Section 12.21.A4.

[e] The VMT reduction related to a reduced parking supply reflects the maximum allowable VMT reduction of 12.5%.

Attachment

VMT Calculator Summary Sheets

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Screening Criteria: Is this project required to conduct a vehicle miles traveled analysis?

Project Information

Project: 7940 Lankershim

Scenario: Project with Project Design Features

Address: 7940 N LANKERSHIM BLVD, 91605



Is the project replacing an existing number of residential units with a smaller number of residential units AND is located within one-half mile of a fixed-rail or fixed-guideway transit station?

○ Yes ○ No

Existing Land Use

Land Use Type	Value	Unit
Housing | Single Family		DU

Click here to add a single custom land use type (will be included in the above list)

Proposed Project Land Use

Land Use Type	Value	Unit
Retail | High-Turnover Sit-Down Restaurant	8	ksf
Housing | Multi-Family	384	DU
Retail | Pharmacy/Drugstore	14	ksf
Retail | High-Turnover Sit-Down Restaurant	8	ksf
Housing | Affordable Housing - Family	48	DU

Click here to add a single custom land use type (will be included in the above list)

Project Screening Summary

Existing Land Use	Proposed Project
0 Daily Vehicle Trips	4,016 Daily Vehicle Trips
0 Daily VMT	29,637 Daily VMT

Tier 1 Screening Criteria

Project will have less residential units compared to existing residential units & is within one-half mile of a fixed-rail station. ☐

Tier 2 Screening Criteria

The net increase in daily trips < 250 trips	4,016 Net Daily Trips
The net increase in daily VMT ≤ 0	29,637 Net Daily VMT
The proposed project consists of only retail land uses ≤ 50,000 square feet total.	22.000 ksf

The proposed project is required to perform VMT analysis.

Measuring the Miles

CITY OF LOS ANGELES VMT CALCULATOR Version 1.3

Project Information

Project: 7940 Lankershim

Scenario: Project with Project Design Features

Address: 7940 N LANKERSHIM BLVD, 91605



Proposed Project Land Use Type	Value	Unit
Housing | Multi-Family	38	
Retail | Pharmacy/Drugstore	14	
Retail | High-Turnover Sit-Down Restaurant	8	
Housing | Affordable Housing - Family	48	

TDM Strategies

Select each section to show individual strategies

Use ☑ to denote if the TDM strategy is part of the proposed project or is a mitigation strategy

	Proposed Project	With Mitigation
Max Home Based TDM Achieved?	**No**	**No**
Max Work Based TDM Achieved?	**No**	**No**

- **A** Parking
- **B** Transit
- **C** Education & Encouragement
- **D** Commute Trip Reductions
- **E** Shared Mobility
- **F** Bicycle Infrastructure
- **G** Neighborhood Enhancement

Traffic Calming Improvements

☐ Proposed Prj ☐ Mitigation

25 percent of streets within project with traffic calming improvements

25 percent of intersections within project with traffic calming improvements

Pedestrian Network Improvements

☑ Proposed Prj ☐ Mitigation

within project and connecting off-site

Analysis Results

Proposed Project	With Mitigation
3,422 Daily Vehicle Trips	**3,422** Daily Vehicle Trips
25,255 Daily VMT	**25,255** Daily VMT
6.5 Household VMT per Capita	**6.5** Household VMT per Capita
N/A Work VMT per Employee	**N/A** Work VMT per Employee

Significant VMT Impact?

Proposed Project	With Mitigation
Household: No Threshold = 9.2 15% Below APC	**Household: No** Threshold = 9.2 15% Below APC
Work: N/A Threshold = 15.0 15% Below APC	**Work: N/A** Threshold = 15.0 15% Below APC

Measuring the Miles

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: June 3, 2020
Project Name: 7940 Lankershim
Project Scenario: Project with Project Design Features
Project Address: 7940 N LANKERSHIM BLVD, 91605

Version 1.3

Project Information			
Land Use Type		**Value**	**Units**
Housing	*Single Family*	*0*	*DU*
	Multi Family	384	DU
	Townhouse	*0*	*DU*
	Hotel	*0*	*Rooms*
	Motel	*0*	*Rooms*
Affordable Housing	Family	48	DU
	Senior	*0*	*DU*
	Special Needs	*0*	*DU*
	Permanent Supportive	*0*	*DU*
Retail	*General Retail*	*0.000*	*ksf*
	Furniture Store	*0.000*	*ksf*
	Pharmacy/Drugstore	14.000	ksf
	Supermarket	*0.000*	*ksf*
	Bank	*0.000*	*ksf*
	Health Club	*0.000*	*ksf*
	High-Turnover Sit-Down Restaurant	8.000	ksf
	Fast-Food Restaurant	*0.000*	*ksf*
	Quality Restaurant	*0.000*	*ksf*
	Auto Repair	*0.000*	*ksf*
	Home Improvement	*0.000*	*ksf*
	Free-Standing Discount	*0.000*	*ksf*
	Movie Theater	*0*	*Seats*
Office	*General Office*	*0.000*	*ksf*
	Medical Office	*0.000*	*ksf*
Industrial	*Light Industrial*	*0.000*	*ksf*
	Manufacturing	*0.000*	*ksf*
	Warehousing/Self-Storage	*0.000*	*ksf*
School	*University*	*0*	*Students*
	High School	*0*	*Students*
	Middle School	*0*	*Students*
	Elementary	*0*	*Students*
	Private School (K-12)	*0*	*Students*

Other	*0*	*Trips*

CITY OF LOS ANGELES VMT CALCULATOR

Report 1: Project & Analysis Overview

Date: June 3, 2020
Project Name: 7940 Lankershim
Project Scenario: Project with Project Design Features
Project Address: 7940 N LANKERSHIM BLVD, 91605

Version 1.3

Analysis Results			
Total Employees: 60 Total Population: 1,016			
Proposed Project		***With Mitigation***	
3,422	**Daily Vehicle Trips**	**3,422**	**Daily Vehicle Trips**
25,255	**Daily VMT**	**25,255**	**Daily VMT**
6.5	**Household VMT per Capita**	**6.5**	**Household VMT per Capita**
N/A	**Work VMT per Employee**	**N/A**	**Work VMT per Employee**

Significant VMT Impact?			
APC: North Valley			
Impact Threshold: 15% Below APC Average Household = 9.2 Work = 15.0			
Proposed Project		***With Mitigation***	
VMT Threshold	**Impact**	**VMT Threshold**	**Impact**
Household > 9.2 Work > 15.0	No N/A	Household > 9.2 Work > 15.0	No N/A

TDM Strategy Inputs

Strategy Type		Description	Proposed Project	Mitigations
Parking	Reduce parking supply	City code parking provision (spaces)	954	954
		Actual parking provision (spaces)	541	541
	Unbundle parking	*Monthly cost for parking ($)*	*$0*	*$0*
	Parking cash-out	*Employees eligible (%)*	*0%*	*0%*
	Price workplace parking	*Daily parking charge ($)*	*$0.00*	*$0.00*
		Employees subject to priced parking (%)	*0%*	*0%*
	Residential area parking permits	*Cost of annual permit ($)*	*$0*	*$0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Transit	*Reduce transit headways*	*Reduction in headways (increase in frequency) (%)*	*0%*	*0%*
		Existing transit mode share (as a percent of total daily trips) (%)	*0%*	*0%*
		Lines within project site improved (<50%, >=50%)	*0*	*0*
	Implement neighborhood shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees and residents eligible (%)	*0%*	*0%*
	Transit subsidies	*Employees and residents eligible (%)*	*0%*	*0%*
		Amount of transit subsidy per passenger (daily equivalent) ($)	*$0.00*	*$0.00*
Education & Encouragement	*Voluntary travel behavior change program*	*Employees and residents participating (%)*	*0%*	*0%*
	Promotions and marketing	*Employees and residents participating (%)*	*0%*	*0%*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Commute Trip Reductions	*Required commute trip reduction program*	*Employees participating (%)*	*0%*	*0%*
	Alternative Work Schedules and Telecommute	*Employees participating (%)*	*0%*	*0%*
		Type of program	*0*	*0*
	Employer sponsored vanpool or shuttle	*Degree of implementation (low, medium, high)*	*0*	*0*
		Employees eligible (%)	*0%*	*0%*
		Employer size (small, medium, large)	*0*	*0*
	Ride-share program	*Employees eligible (%)*	*0%*	*0%*
Shared Mobility	*Car share*	*Car share project setting (Urban, Suburban, All Other)*	*0*	*0*
	Bike share	*Within 600 feet of existing bike share station - OR- implementing new bike share station (Yes/No)*	*0*	*0*
	School carpool program	*Level of implementation (Low, Medium, High)*	*0*	*0*

(cont. on following page)

TDM Strategy Inputs, Cont.

Strategy Type		Description	Proposed Project	Mitigations
Bicycle Infrastructure	*Implement/Improve on-street bicycle facility*	*Provide bicycle facility along site (Yes/No)*	*0*	*0*
	Include Bike parking per LAMC	Meets City Bike Parking Code (Yes/No)	Yes	Yes
	Include secure bike parking and showers	*Includes indoor bike parking/lockers, showers, & repair station (Yes/No)*	*0*	*0*
Neighborhood Enhancement	*Traffic calming improvements*	*Streets with traffic calming improvements (%)*	*0%*	*0%*
		Intersections with traffic calming improvements (%)	*0%*	*0%*
	Pedestrian network improvements	Included (within project and connecting off-site/within project only)	within project and connecting off-site	within project and connecting off-site

TDM Adjustments by Trip Purpose & Strategy

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Parking	Reduce parking supply	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	TDM Strategy Appendix, Parking sections 1 - 5
	Unbundle parking	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Parking cash-out	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Price workplace parking	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Residential area parking permits	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	
Transit	Reduce transit headways	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Transit sections 1 - 3
	Implement neighborhood shuttle	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Transit subsidies	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
Education & Encouragement	Voluntary travel behavior change program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Education & Encouragement sections 1 - 2
	Promotions and marketing	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
Commute Trip Reductions	Required commute trip reduction program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	TDM Strategy Appendix, Commute Trip Reductions sections 1 - 4
	Alternative Work Schedules and Telecommute Program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Employer sponsored vanpool or shuttle	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
	Ride-share program	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	
Shared Mobility	Car-share	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Shared Mobility sections 1 - 3
	Bike share	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	
	School carpool program	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	

TDM Adjustments by Trip Purpose & Strategy, Cont.

Place type: Suburban Center

		Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*		*Source*
		Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	
Bicycle Infrastructure	Implement/ Improve on-street bicycle facility	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Bicycle Infrastructure sections 1 - 3
	Include Bike parking per LAMC	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
	Include secure bike parking and showers	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	
Neighborhood Enhancement	Traffic calming improvements	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	TDM Strategy Appendix, Neighborhood Enhancement
	Pedestrian network improvements	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	

Final Combined & Maximum TDM Effect

	Home Based Work Production		*Home Based Work Attraction*		*Home Based Other Production*		*Home Based Other Attraction*		*Non-Home Based Other Production*		*Non-Home Based Other Attraction*	
	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated	Proposed	Mitigated
COMBINED TOTAL	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*
MAX. TDM EFFECT	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*

= Minimum (X%, 1-[(1-A)*(1-B)…])
where X%=

PLACE TYPE MAX:	*urban*	*75%*
	compact infill	*40%*
	suburban center	*20%*
	suburban	*15%*

Note: (1-[(1-A)*(1-B)…]) reflects the dampened combined effectiveness of TDM Strategies (e.g., A, B,…). See the TDM Strategy Appendix (*Transportation Assessment Guidelines Attachment G)* for further discussion of dampening.

CITY OF LOS ANGELES VMT CALCULATOR

Report 4: MXD Methodology

Date: June 3, 2020
Project Name: 7940 Lankershim
Project Scenario: Project with Project Design Features
Project Address: 7940 N LANKERSHIM BLVD, 91605

Version 1.3

MXD Methodology - Project Without TDM

	Unadjusted Trips	MXD Adjustment	MXD Trips	Average Trip Length	Unadjusted VMT	MXD VMT
Home Based Work Production	385	-15.6%	325	8.7	3,350	2,828
Home Based Other Production	1,066	-25.7%	792	6.2	6,609	4,910
Non-Home Based Other Production	1,007	-2.7%	980	8.3	8,358	8,134
Home-Based Work Attraction	87	-24.1%	66	10.4	905	686
Home-Based Other Attraction	1,678	-25.9%	1,243	6.4	10,739	7,955
Non-Home Based Other Attraction	630	-3.2%	610	8.4	5,292	5,124

MXD Methodology with TDM Measures

	Proposed Project			*Project with Mitigation Measures*		
	TDM Adjustment	Project Trips	Project VMT	TDM Adjustment	Mitigated Trips	Mitigated VMT
Home Based Work Production	-14.8%	277	2,410	-14.8%	277	2,410
Home Based Other Production	-14.8%	675	4,184	-14.8%	675	4,184
Non-Home Based Other Production	-14.8%	835	6,931	-14.8%	835	6,931
Home-Based Work Attraction	-14.8%	56	585	-14.8%	56	585
Home-Based Other Attraction	-14.8%	1,059	6,779	-14.8%	1,059	6,779
Non-Home Based Other Attraction	-14.8%	520	4,366	-14.8%	520	4,366

MXD VMT Methodology Per Capita & Per Employee

Total Population: 1,016
Total Employees: 60
APC: North Valley

	Proposed Project	*Project with Mitigation Measures*
Total Home Based Production VMT	**6,594**	**6,594**
Total Home Based Work Attraction VMT	**585**	**585**
Total Home Based VMT Per Capita	**6.5**	**6.5**
Total Work Based VMT Per Employee	**N/A**	**N/A**

TRANSPORTATION IMPACT STUDY FOR THE 7940 LANKERSHIM BOULEVARD MIXED-USE PROJECT

LOS ANGELES, CALIFORNIA



OCTOBER 2019

PREPARED FOR

DLA PIPER LLP

PREPARED BY

Gibson
transportation consulting, inc.

TRANSPORTATION IMPACT STUDY
FOR THE
7940 LANKERSHIM BOULEVARD
MIXED-USE PROJECT

LOS ANGELES, CALIFORNIA

October 2019

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Chapter 1
Introduction

This study presents the transportation impact analysis for the proposed 7940 Lankershim Boulevard Mixed-Use Project (Project) at 7940 Lankershim Boulevard (Project Site) in the Sun Valley community of the City of Los Angeles (the City). The methodology and base assumptions used in the analysis were established in conjunction with the Los Angeles Department of Transportation (LADOT).

PROJECT DESCRIPTION

The Project proposes the redevelopment of the Project Site with a new seven-story mixed-use development consisting of 432 apartment units, a 14,000 square foot (sf) pharmacy with a drive-through, and 8,000 sf of restaurant use. The construction yard and vacant commercial and office buildings that are currently on-site would be removed with development of the Project.

Parking for the Project would be provided on-site within one subterranean level and one at-grade level. Access to the Project parking facilities would be provided via driveways along Lankershim Boulevard and Strathern Street. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard.

Figure 1 illustrates the conceptual Project site plan.

PROJECT LOCATION AND TRANSPORTATION IMPACT ANALYSIS STUDY AREA

The Project Site is bounded by the Strathern Street to the north, residential uses to the east, commercial and residential uses to the south, and Lankershim Boulevard to the west. The Project Site is located approximately 0.80 miles south of Interstate 5 (I-5) and approximately 1.20 miles east of State Route 170 (SR 170). In the vicinity of the Project Site, the Sun Valley

community is served by major streets such as Lankershim Boulevard, Laurel Canyon Boulevard, and Tujunga Avenue, Roscoe Boulevard/Tuxford Street, and San Fernando Road.

As shown in Figure 2, the Project's Study Area includes a geographic area generally bounded by I-5 to the north, Vineland Avenue/Sunland Boulevard to the east, Saticoy Street to the south, and Laurel Canyon Boulevard to the west. Detailed traffic analyses were conducted at key intersections within the Study Area.

Transit bus service is provided along Lankershim Boulevard, Laurel Canyon Boulevard, Roscoe Boulevard/Tuxford Street, Saticoy Street, and Vineland Avenue/Sunland Boulevard. Additionally, the Project is located approximately 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink Antelope Valley (AV) Line that travels from Union Station in downtown Los Angeles to the City of Lancaster.

INTERSECTION ANALYSIS METHODOLOGY

The scope of analysis for this transportation impact study was developed in consultation with LADOT. The base assumptions and technical methodologies (i.e., trip generation, study locations, analysis methodology, etc.) were identified as part of the study approach and were outlined in a Memorandum of Understanding (MOU) which was reviewed and approved by LADOT. As part of the MOU, a review of the freeway impact analysis screening criteria on the California Department of Transportation (Caltrans) facilities (i.e., freeway ramps and freeway mainline segments) was prepared pursuant to the *First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures* (State of California and City of Los Angeles, December 15, 2015) ("Caltrans Agreement"). A copy of the signed MOU is provided in Appendix A.

This transportation study analyzed the potential Project-generated traffic impacts on the street system in the vicinity of the Project Site as compared to existing conditions and projected future conditions at the time the Project is expected to be completed (Year 2023). Potential intersection impacts were evaluated for typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods. A total of 12 signalized intersections in the vicinity of the Project Site were selected for detailed traffic analysis. They are listed in Table 1 and shown in Figure 2.

This transportation study evaluated the potential for impacts caused by the Project on the street system surrounding the Project Site. Consistent with *Transportation Impact Study Guidelines* (LADOT, December 2016), the following traffic conditions were developed and analyzed as part of this study:

- Existing Conditions (Year 2018) – The analysis of existing traffic conditions provides a basis for the assessment of future traffic conditions. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Study Area. Intersection turning movement counts were collected in September and October 2018. Fieldwork (lane configurations and signal phasing) for the analyzed intersections was also collected and is provided in Appendix B. The traffic count worksheets are available in Appendix C.

- Existing with Project Conditions (Year 2018) – This analysis condition projects the potential intersection operating conditions that could be expected if the Project were built under existing conditions. In this scenario, the Project-generated traffic is added to the Existing Conditions.

- Existing with Project with Mitigation Conditions (Year 2018) – This analysis condition projects the potential intersection operating conditions that could be expected if the Project were built under existing conditions, including the effect of any mitigation. In this analysis condition, the Project-generated traffic with mitigation incorporated is added to the Existing Conditions.

- Future without Project Conditions (Year 2023) – This analysis condition projects the potential intersection operating conditions that could be expected as a result of regional growth and related project traffic in the Study Area by Year 2023. This analysis provides the conditions by which the Project impacts are evaluated in the future at full buildout.

- Future with Project Conditions (Year 2023) – This analysis condition projects the potential intersection operating conditions that could be expected if the Project were built in the projected buildout year. In this analysis, the Project-generated traffic is added to Future without Project Conditions.

- Future with Project with Mitigation Conditions (Year 2023) – This analysis projects the potential intersection operating conditions that could be expected if the Project were built in the projected buildout year, including the effect of any mitigation. In this analysis condition, the Project-generated traffic with mitigation incorporated is added to the Future without Project Conditions.

Intersection Analysis Methodology

Intersection capacity has been analyzed using the "Critical Movement Analysis (CMA) – Planning" (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980) methodology required by the City. The CMA methodology was implemented using LADOT's CalcaDB Lite spreadsheet application to analyze intersection operating conditions. The methodology calculates the volume-to-capacity (V/C) ratio, which is used to determine the intersection level of service (LOS) according to the LOS definitions provided in Table 2. Intersection capacity calculation worksheets for each scenario are available in Appendix D.

The Automated Traffic Surveillance and Control (ATSAC) system represents an advanced system in computer control of traffic signals. It was first put into operation in June 1984 in the Coliseum area of the City to anticipate the expected increase in traffic due to the Summer Olympic Games and has since been expanded to other parts of the City. The advantages of ATSAC-controlled traffic signals are substantial, including real-time adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by incidents, the ability to implement special purpose short-term signal timing changes in response to incidents, and the ability to identify signal equipment malfunctions quickly. LADOT estimates that implementation of this system improves intersection capacity by an average of 7%.

In addition to ATSAC, the Adaptive Traffic Control System (ATCS) has been implemented in the City. ATCS is a computer-based traffic signal control program that provides fully responsive traffic signal control based on real-time traffic conditions. It automatically adjusts and optimizes traffic signal timing in response to current traffic demands on the entire signal network such that the number of stops and the amount of delay is minimized along with improved traffic signal coordination throughout the network. LADOT estimates that implementation of this system improves intersection capacity by an additional 3% over those operating under the ATSAC system alone.

Each of the signalized study intersections is equipped with both ATSAC and ATCS. In accordance with standard LADOT procedures, a capacity increase of 10% (0.10 V/C adjustment) was applied to each intersection to reflect the benefits of ATSAC and ATCS control.

The capacity increases are applied within the CalcaDB Lite software and, therefore, are inherent in the analysis results.

Significant Impact Criteria

The significance of the potential impacts of Project generated traffic at the signalized study intersections was determined using criteria identified in *Transportation Impact Study Guidelines*, which indicate that a project is considered to have a significant traffic impact on a signalized intersection if the increase in the V/C ratio attributable to the project exceeds a specific threshold depending on the final intersection LOS. LADOT has developed a sliding scale methodology in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the V/C ratio of the intersection increases:

Intersection Conditions with Project Traffic		Significant Impact Threshold for Project-related Increase in V/C Ratio
LOS	**V/C**	
C	0.701 – 0.800	Equal to or greater than 0.04
D	0.801 – 0.900	Equal to or greater than 0.02
E, F	> 0.900	Equal to or greater than 0.01

Source: City of Los Angeles.

The relative impact of the added traffic volumes to be generated by the Project was evaluated based on analysis of existing and future operating conditions at the study intersections, with and without the Project, as well as with the implementation of mitigations.

ADDITIONAL TRAFFIC ANALYSES

State of California Senate Bill No. 743

Senate Bill 743 (Steinberg, 2013) (SB 743), made effective in January 2014, requires the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis will shift from driver delay to vehicle miles traveled (VMT) reduction of

greenhouse gas emissions (GHG) and creation of multimodal networks and promotion of mixed-use developments. Although originally scheduled to be fully implemented in CEQA guidelines by January 1, 2016, an extension has allowed cities more time to establish an analysis methodology. LADOT is currently in the process of updating the City's transportation impact methodology and thresholds based on VMT.

To better align with the State's multimodal transportation and environmental action goals, Caltrans is pursuing VMT as a metric of Project impacts, which is outlined in *Local Development – Intergovernmental Review Program Interim Guide* (Caltrans, Approved September 2016) (Caltrans Interim Guide).

To adapt to SB 743, the Los Angeles City Planning Commission, on February 28, 2019, recommended the approval of revised Los Angeles CEQA Guidelines to include new transportation analysis screening procedures and thresholds. The revised analysis procedures and transportation thresholds require approval by the Los Angeles City Council, which is expected later in 2019. LADOT is in the process of updating *Transportation Impact Study Guidelines* to better assess how development projects affect the City's transportation system and to define the methodology of analyzing a project's transportation impacts using VMT.

Consistent with the goals of SB 743, the Project Site represents an urban/compact infill location and is located adjacent to numerous transit lines. The Project is also located along a major corridor, Lankershim Boulevard. The location efficiency of the Project Site would result in synergistic benefits that would reduce vehicle trips and VMT. The combined effects of these factors would reduce the Project's anticipated vehicle trips and VMT, and encourage walking and non-auto forms of transportation, which results in corresponding reductions in transportation-related GHG emissions.

Congestion Management Program

An analysis also was conducted according to *2010 Los Angeles County Congestion Management Program* (Los Angeles County Metropolitan Transportation Authority [Metro], 2010) (CMP) guidelines. The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the

Regional Transportation Improvement Program and State Transportation Improvement Program processes. The CMP requires that a traffic impact analysis be performed (1) for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, it requires a review of potential impacts to the regional transit system.

The required CMP analyses were performed, as detailed in Chapter 9, in accordance with the guidelines in the CMP.

Caltrans

The Caltrans Interim Guide provides the suggested approach for Caltrans to recommend improvements to help meet the goals and targets of the *Caltrans Strategic Management Plan 2015-2020* (Caltrans, March 2015) and *California Transportation Plan 2040* (Caltrans, June 2016), including pedestrian safety enhancements and pedestrian accessibility improvements. The Caltrans Interim Guide directs lead agencies to consider "multi-modal solutions from existing regional transportation plans, regional plans, transit plans, bicycle plans, and pedestrian plans."

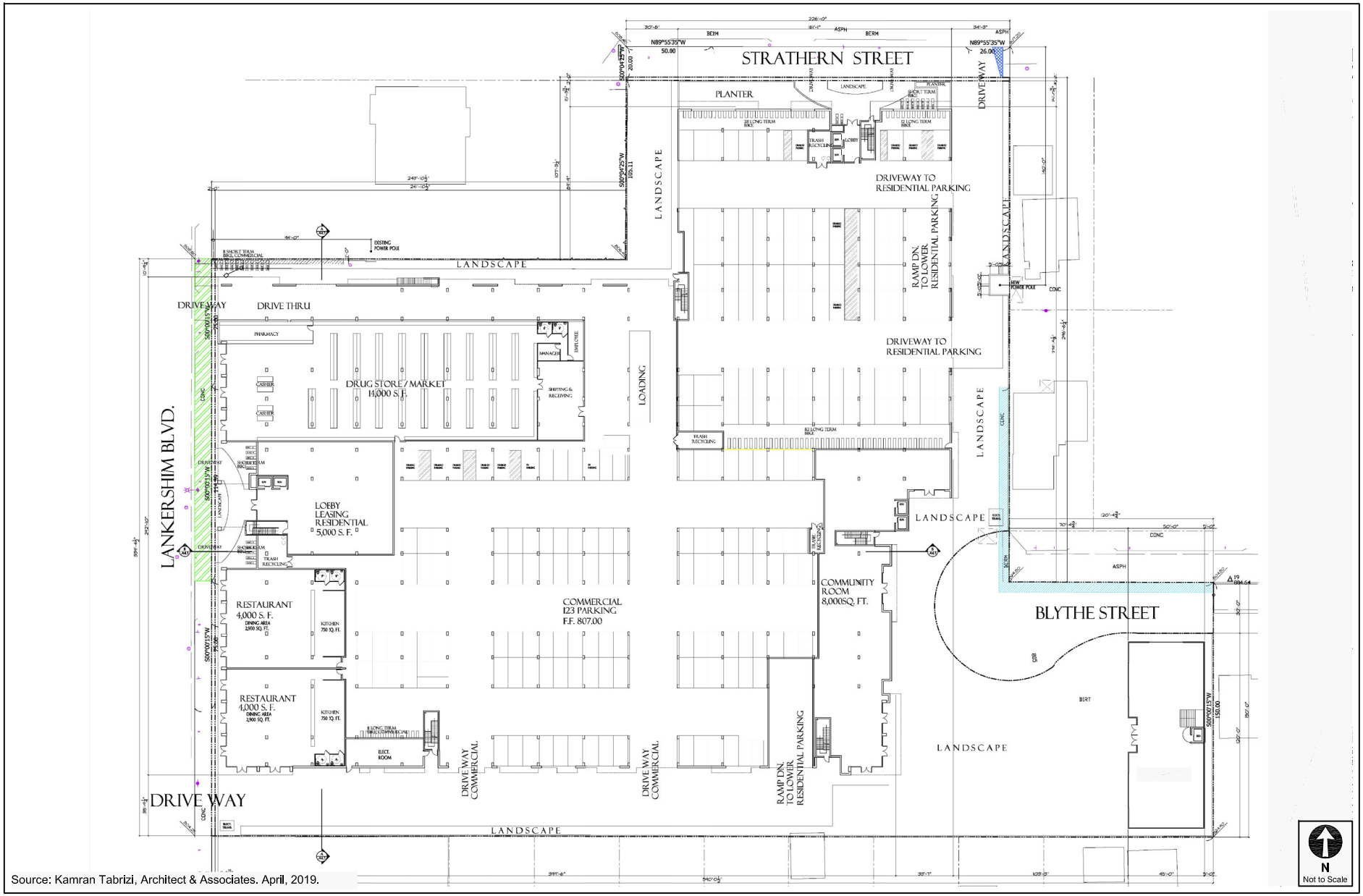
As mentioned above, Caltrans facilities were evaluated according to the requirements of the Caltrans Agreement, which identifies a series of screening criteria that, if any are met by the Project, require a more detailed analysis of Caltrans facilities. As shown in the approved MOU, the screening criteria were not met. Therefore, no further detailed analysis of Caltrans facilities was required.

Additional Review and Analysis

In addition to the analyses introduced above, this study includes a review of various other features and conditions related to the Project. This includes a review of Project access and circulation.

ORGANIZATION OF REPORT

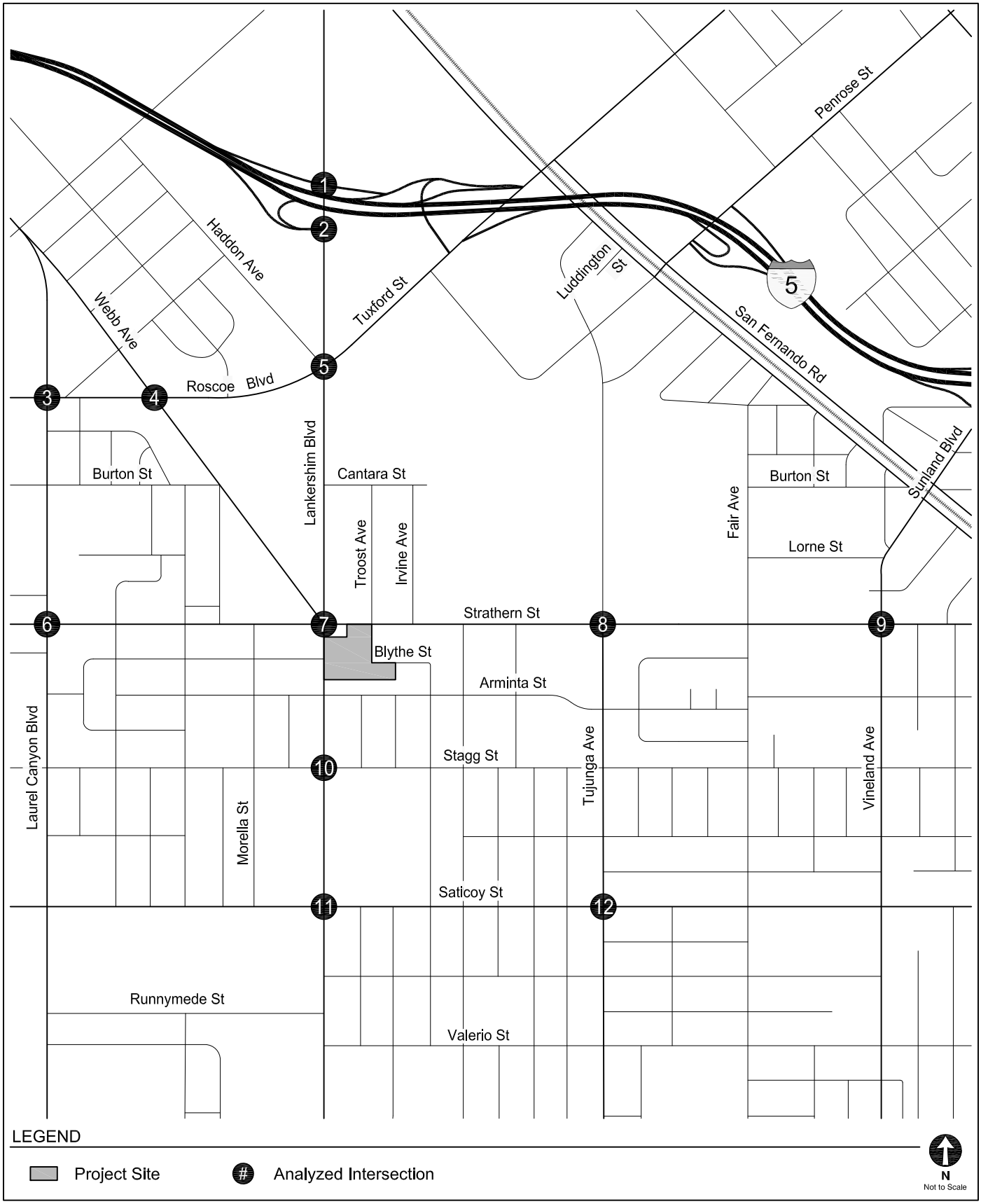
This report is divided into 13 chapters, including this introduction. Chapter 2 describes the existing circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 3 forecasts the Future without Project Conditions. Chapter 4 describes the procedure used to forecast Project traffic volumes and distribution through the Study Area. Chapter 5 presents the intersection operating conditions associated with construction of the Project on top of Existing Conditions (Year 2018). Chapter 6 presents the intersection operating conditions associated with construction of the Project on top of Future without Project Conditions (Year 2023). Chapter 7 assesses the potentially significant transportation impacts, prior to mitigation, associated with the Project compared to the existing and future conditions. Chapter 8 describes the transportation improvement and mitigation program designed to reduce the impacts of the Project to the extent possible. Chapter 9 presents the regional CMP analysis. Chapter 10 describes site access and internal circulation. Chapter 11 reviews the proposed parking and the City's parking requirement for the Project. Chapter 12 presents the impacts associated with the construction phase of the Project. Chapter 13 summarizes the analyses and study conclusions. The appendices contain supporting documentation, including the MOU that outlines the study scope and assumptions and additional details of the technical analyses.



Source: Kamran Tabrizi, Architect & Associates. April, 2019.

PROJECT SITE PLAN

FIGURE 1



STUDY AREA

FIGURE 2

TABLE 1
STUDY INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction
1.	Lankershim Boulevard	I-5 Northbound Ramps	City of Los Angeles / Caltrans
2.	Lankershim Boulevard	I-5 Southbound Ramps / Cayuga Avenue	City of Los Angeles / Caltrans
3.	Laurel Canyon Boulevard	Roscoe Boulevard	City of Los Angeles
4.	Webb Avenue	Roscoe Boulevard	City of Los Angeles
5.	Lankershim Boulevard	Roscoe Boulevard / Tuxford Street	City of Los Angeles
6.	Laurel Canyon Boulevard	Strathern Street	City of Los Angeles
7.	Lankershim Boulevard & Webb Avenue	Strathern Street	City of Los Angeles
8.	Tujunga Avenue	Strathern Street	City of Los Angeles
9.	Vineland Avenue	Strathern Street	City of Los Angeles
10.	Lankershim Boulevard	Stagg Street	City of Los Angeles
11.	Lankershim Boulevard	Saticoy Street	City of Los Angeles
12.	Tujunga Avenue	Saticoy Street	City of Los Angeles

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR INTERSECTIONS

Level of Service	Signalized V/C Ratio [a]	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Notes

[a] *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

Chapter 2
Existing Conditions

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the Project Study Area. The Existing Conditions analysis includes an assessment of the existing freeway and street systems and an analysis of traffic volumes, current operating conditions, and existing public transit service, as well as pedestrian and bicycle circulation.

STUDY AREA

The Project's Study Area, shown in Figure 2, includes a geographic area generally bounded by I-5 to the north, Vineland Avenue/Sunland Boulevard to the east, Saticoy Street to the south, and Laurel Canyon Boulevard to the west.

A transportation analysis study area generally comprises those intersections with the greatest potential to experience significant traffic impacts due to the project as defined by the City, including intersections that are:

1. Immediately adjacent or in close proximity to the project site
2. In the vicinity of the project site that are documented to have current or projected future adverse operational issues
3. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections)

This Study Area was established in consultation with LADOT, based on the above criteria, as well as peak hour Project trip generation, the anticipated distribution of Project traffic, and the existing intersections/corridor operations. It is comprised of those intersections with the greatest potential to experience significant traffic impacts due to the Project.

A total of 12 signalized intersections were identified for detailed analysis during the MOU process. Figure 2 illustrates the location of the Project Site in relation to the surrounding street system and the 12 study intersections. The existing lane configurations at the analyzed intersections are provided in Appendix B.

EXISTING STREET SYSTEM

The existing street system in the Study Area consists of a regional roadway system including Freeways, Primary and Secondary Arterials, and Collector and Local streets. These facilities provide regional, sub-regional, or local access and circulation within the Study Area. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and between 55 and 65 mph on freeways.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning, January 2016) ("Mobility Plan"). The Mobility Plan has revised street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The available facilities in the Study Area are defined by the following in the Mobility Plan:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
    - Boulevards represent the widest streets that typically provide regional access to major destinations and include two categories:
        - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph
    - Avenues pass through both residential and commercial areas and include three categories:

- Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph
- Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph
- Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph

- Collector Streets are generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph.
- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local streets include two categories:
  - Continuous local streets connect to other streets at both ends
  - Non-continuous local streets lead to a dead-end

Primary regional access to the Project Site is provided by I-5. The major arterials providing regional and sub-regional access to the Project include Lankershim Boulevard, Roscoe Boulevard/Tuxford Street, and Vineland Avenue/Sunland Boulevard. The following is a brief description of the prominent roadways in the Study Area and their designations in the Mobility Plan:

Freeways

- I-5 – I-5 generally runs in the north-south direction and is located approximately 0.80 miles north of the Project Site. Within the Study Area, I-5 provides four travel lanes, as well as a high-occupancy vehicle lane, in each direction. Primary access to and from I-5 is available via interchanges at Lankershim Boulevard and Tuxford Street.

Roadways

- Laurel Canyon Boulevard – Laurel Canyon Boulevard is a designated Avenue I that travels in the north-south direction. It is located west of the Project Site and provides four travel lanes, two lanes in each direction, with a center left-turn lane and left-turn lanes at intersections. Travel lanes are generally 11-12 feet wide and the total paved width is 70 feet. On-street unmetered parking is generally provided on both sides of the street.

- Lankershim Boulevard – Lankershim Boulevard is a designated Boulevard II that travels in the north-south direction. It is located adjacent to the western boundary of the Project Site and provides four travel lanes, two lanes in each direction, with a center left-turn lane and left-turn lanes at intersections. Travel lanes are generally 10 feet wide and the total paved width is 80 feet. On-street unmetered parking is generally provided on both sides of the street.

- Tujunga Avenue – Tujunga Avenue is a designated Avenue II that travels in the north-south direction. It is located east of the Project Site and provides two travel lanes, one lane in each direction, north of Strathern Street and three travel lanes, two northbound and one southbound, south of Strathern Street. Left-turn lanes are provided at intersections. Travel lanes are generally 10 feet wide and the total paved width is 56 feet. On-street unmetered parking is generally provided on both sides of the street.

- Vineland Avenue – Vineland Avenue is a designated Boulevard II south of Strathern Street, a designated Avenue I between Strathern Street and Lorne Street, and a designated Local Street north of Lorne Street that travels in the north-south direction. It is located east of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections, south of Lorne Street. Vineland Avenue diverges from Sunland Boulevard north of Lorne Street and provides a one-way northbound lane with angled parking on the west side of the street until Cantara Street. Two travel lanes, one in each direction, are provided between Cantara Street and San Fernando Boulevard. Travel lanes are generally 10 feet wide and the total paved width is 80 feet. On-street unmetered parking is generally provided on both sides of the street.

- Sunland Boulevard – Sunland Boulevard is a designated Avenue I that travels in the north-south direction. It is located northeast of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Sunland Boulevard connects to Vineland Avenue at Lorne Street. Travel lanes are generally 10 feet wide and the total paved width is 70 feet. On-street unmetered parking is generally provided on both sides of the street.

- Roscoe Boulevard – Roscoe Boulevard is a designated Boulevard II that travels in the east-west direction. It is located north of the Project Site and provides four travel lanes, two lanes in each direction, and left-turn lanes at intersections. Roscoe Boulevard connects with Tuxford Boulevard at Lankershim Boulevard. Travel lanes are generally 10 to 11 feet wide and the total paved width is 80 feet. On-street unmetered parking is generally provided on both sides of the street.

- Tuxford Street – Tuxford Street is a designated Boulevard II that travels in the northeast-southwest direction. It is located north of the Project Site and provides four travel lanes, two lanes in each direction, and left-turn lanes at intersections. Tuxford Street connects with Roscoe Boulevard at Lankershim Boulevard. Travel lanes are generally 10 to 11 feet wide and the total paved width is 80 feet. On-street unmetered parking is generally provided on both sides of the street.

- Haddon Avenue – Haddon Avenue is a designated Local Street between Tuxford Street and Pendleton Street and a designated Collector Street north of Pendleton Street that travels in the northwest-southeast direction north of the Project Site. It provides two travel lanes, one in each direction. Travel lanes are generally 10 feet wide and the total

paved width is 40 feet. Haddon Avenue terminates at the intersection with Lankershim Boulevard and Tuxford Street. On-street unmetered parking is generally provided on both sides of the street.

- Webb Avenue – Webb Avenue is a designated Collector Street that travels in the northwest-southeast direction. It is located northwest of the Project Site and provides four travel lanes, two lanes in each direction, with a center left-turn lane and left-turn lanes at intersections. Travel lanes are generally 10 feet wide and the total paved width is 80 feet. Webb Avenue terminates at the intersection with Lankershim Boulevard and Strathern Street. On-street unmetered parking is generally provided on the north side of the street. Parking is unavailable on the south side of the street.

- Strathern Street – Strathern Street is a designated Avenue II that travels in the east-west direction. It is located along the northern boundary of the Project Site and provides two travel lanes, one lane in each direction, with left-turn lanes at intersections. Travel lanes are generally 10 feet wide and the total paved width is 56 feet. On-street unmetered parking is generally provided on both sides of the street.

- Stagg Street – Stagg Street is a designated Collector Street that travels in the east-west direction. It is located south of the Project Site and provides two travel lanes, one lane in each direction. Travel lanes are generally 10 feet wide and the total paved width is 40 feet. On-street unmetered parking is generally provided on both sides of the street.

- Saticoy Street – Saticoy Street is a designated Avenue II that travels in the east-west direction. It is located south of the Project Site and provides four travel lanes, two lanes in each direction, with left-turn lanes at intersections. Travel lanes are generally 10 feet wide and the total paved width is 56 feet. On-street parking is generally provided on both sides of the street.

EXISTING TRANSIT SYSTEM

The Project area is served by bus lines operated by Metro. Figure 3 illustrates the existing transit service in the Study Area. The following provides a brief description of the bus lines providing service in the Project vicinity:

- Metro Local 94 – Route 94 is a local line that travels from Downtown Los Angeles to Sun Valley via San Fernando Road, with average headways of approximately 20 minutes during the weekday morning and approximately 25 minutes during the afternoon peak hours. This line provides service to Glassell Park and Burbank and travels generally along San Fernando Road in the vicinity of the Project Site.

- Metro Local 152 – Route 152 is a local line that travels from West Hills to North Hollywood via Roscoe Avenue and Vineland Avenue, with average headways of approximately 13 to 22 minutes during the weekday morning and afternoon peak hours.

This line provides service to Woodland Hills and Sun Valley and travels generally along Roscoe Boulevard and Vineland Avenue in the vicinity of the Project Site.

- Metro Local 169 – Route 169 is a local line that travels from Burbank to Woodland Hills, with average headways of approximately 48 to 60 minutes during the weekday morning and afternoon peak hours. This line provides service to Sun Valley, Van Nuys, and West Hills and travels along Saticoy Street in the vicinity of the Project Site.

- Metro Local 222 – Route 222 is a local line that travels from Sunland to Hollywood via Sunland Boulevard and Hollywood Way, with average headways of approximately 40 to 60 minutes during the weekday morning and afternoon peak hours. This line provides service to Sun Valley, Burbank, and Universal City and travels along Vineland Avenue and Strathern Street in the vicinity of the Project Site.

- Metro Local 224 – Route 224 is a local line that travels from Sylmar to Studio City via Lankershim Boulevard, with average headways of approximately 11 to 14 minutes during the weekday morning and afternoon peak hours. This line provides service to Pacoima, Sun Valley, and North Hollywood and travels along Lankershim Boulevard in the vicinity of the Project Site.

- Metro Local 230 – Route 230 is a local line that travels from Sylmar to Studio City via Laurel Canyon Boulevard, with average headways of approximately 22 to 27 minutes during the weekday morning and afternoon peak hours. This line provides service to Pacoima, Sun Valley, and North Hollywood and travels along Laurel Canyon Boulevard in the vicinity of the Project Site.

- Metro Local 353 – Route 353 is a limited stop local line that travels from Woodland Hills to North Hollywood via Roscoe Boulevard and Lankershim Boulevard, with average headways of approximately 13 to 22 minutes during the weekday morning and afternoon peak hours. This line provides service to Northridge, Panorama City and Sun Valley and travels along Roscoe Boulevard and Lankershim Boulevard in the vicinity of the Project Site.

- Metro Rapid 794 – Route 794 is a rapid line that travels from Downtown Los Angeles to Sylmar via San Fernando Road, with average headways of approximately 22 to 27 minutes during the weekday morning and afternoon peak hours. This line provides service to Glassell Park, Burbank, and Sun Valley and travels along San Fernando Road in the vicinity of the Project Site.

In addition to the bus lines that provide service within the Project Site vicinity, the Project is located approximately 0.90 miles southwest of the Metrolink Sun Valley Station, which serves the Metrolink AV Line. The Metrolink AV Line travels from Union Station in downtown Los Angeles to Lancaster.

Table 3 summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and the

frequency of service, as described above. The average frequency of transit service during the peak hour was derived from the number of peak period stops made at the stop nearest the Project Site. The average headways during the peak hour were estimated using detailed trip and ridership data from April 2017 provided by Metro.

Table 4 summarizes the total available capacity of the transit system that serve the Project Site during the morning and afternoon peak hours based on the frequency of service of each line, the standing capacity of each bus or train, and the average peak hour load in each direction. As shown in Table 4, the Metro lines within a 0.25-mile walking distance of the Project Site have available capacity for approximately 530 additional riders during the morning peak hour and 569 riders during the afternoon peak hour.

BICYCLE AND PEDESTRIAN NETWORK

Existing Bicycle System

Based on *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (Los Angeles Department of City Planning, adopted March 1, 2011) ("2010 Bicycle Plan"), the existing bicycle system consists of a limited coverage of bicycle paths (Class I), bicycle lanes (Class II) and bicycle routes and bicycle-friendly streets (Class III). Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Bicycle routes and bicycle-friendly streets are those where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes and bicycle friendly streets are preferably located on collector and lower volume arterial streets. Bicycle routes with shared lane markings, or "sharrows," remind bicyclists to ride further from parked cars to prevent collisions, make motorists aware of bicycles potentially in the travel lane, and show bicyclists the correct direction of travel. The following bicycle facilities are provided along corridors within the Study Area:

Bicycle Lane (Class II)

- Vineland Avenue/Sunland Boulevard south of Lorne Street
- Lankershim Boulevard

- Laurel Canyon Boulevard
- Roscoe Boulevard/Tuxford Street
- Strathern Street west of Laurel Canyon Boulevard

The components of the 2010 Bicycle Plan have been incorporated into the bicycle network of the Mobility Plan. The Mobility Plan consists of a Low-Stress Bikeway System and a Bicycle Lane Network. The Low-Stress Bikeway System is comprised of the Bicycle Enhanced Network, the Neighborhood Enhanced Network, and Bike Paths. The Bicycle Enhanced Network includes protected bicycle lanes, which provide bicycling infrastructure including cycle tracks, bicycle signals, and demarcated areas to facilitate turns at intersections, and neighborhood streets, which would typically provide mini-roundabouts, cross-street stop signs, crossing islands at major intersection crossings, improved street lighting, bicycle boxes, and bicycle-only left-turn pockets. The Neighborhood Enhanced Network and Bicycle Paths are relatively unchanged from the 2010 Bicycle Plan. The Bicycle Plan Network consists of protected bicycle lanes, priority bicycle lanes, and planned bicycle lanes.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by Walk Score and assigned a score out of 100 points. With the various commercial businesses and cultural facilities adjacent to residential neighborhoods, the walkability of the Study Area is approximately 76 points[1].

The sidewalks that serve as routes to the Project Site provide proper connectivity and adequate widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at study intersections. The following signalized intersection provides pedestrian facilities to limit mid-block crossings to the Project Site (intersection has marked pedestrian crossings on all approaches):

[1] Walk Score (www.walkscore.com) rates the Project Site (7940 Lankershim Boulevard) with a score of 76 of 100 possible points (scores accessed on January 16, 2019). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel, based on available walking routes to nearby amenities, population density, and road metrics (block lengths, intersections density).

- Lankershim Boulevard & Webb Avenue & Strathern Street

The signalized intersection provides pedestrian phasing, crosswalk striping, and Americans with Disabilities Act (ADA) wheelchair ramps.

Vision Zero

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. Adjacent to the Project Site, Lankershim Boulevard south of Cantara Street and Strathern Street east of Lankershim Boulevard have been identified in the High Injury Network. In addition, the following streets within the Study Area have also been identified in the High Injury Network:

- Vineland Avenue/Sunland Boulevard
- Laurel Canyon Boulevard south of Roscoe Boulevard
- San Fernando Road between Penrose Street and Tuxford Street

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection indicating V/C ratios or delay and LOS.

Existing Traffic Volumes

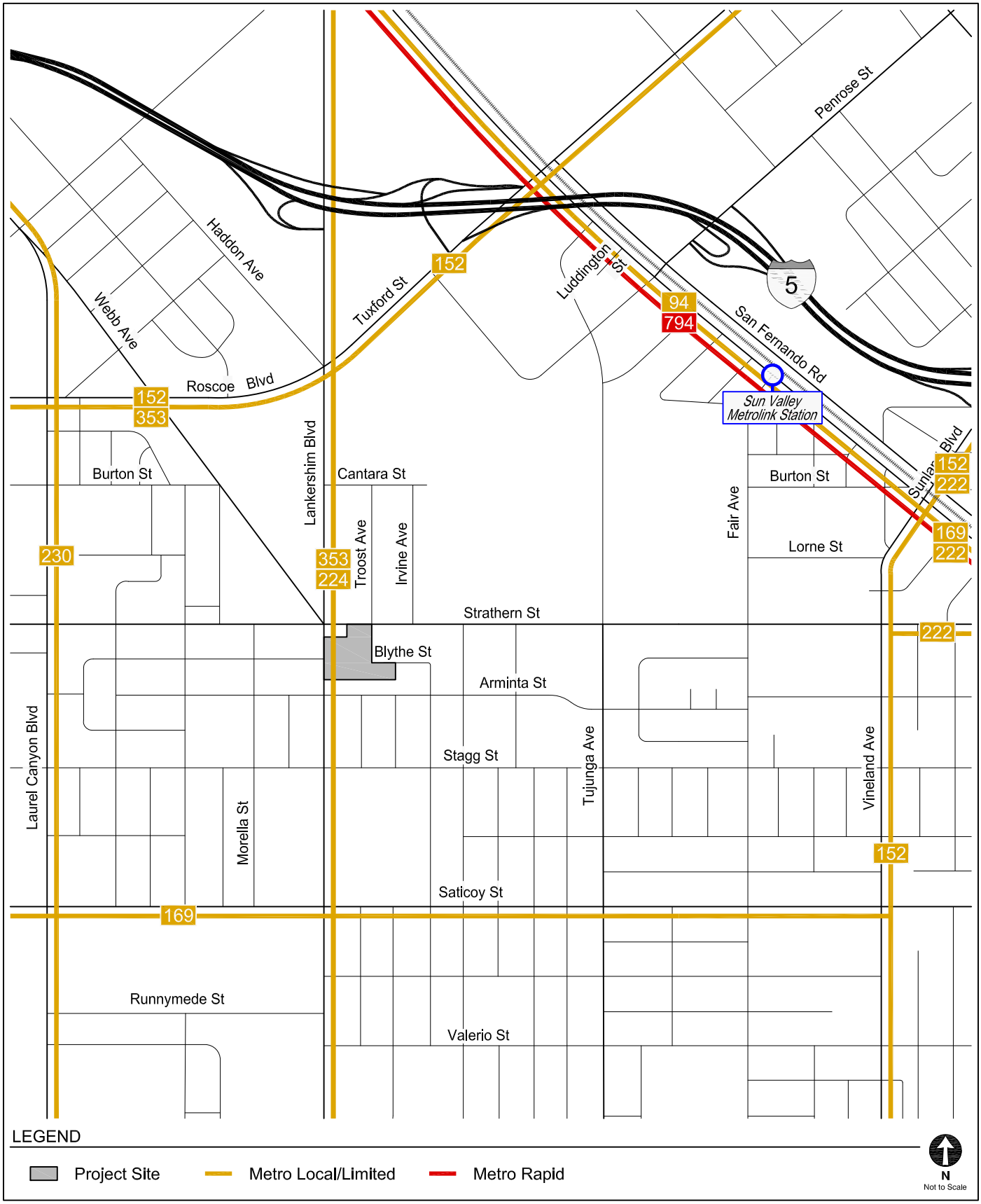
Intersection turning movement counts were conducted at the 12 study intersections during the weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods in

September and October 2018 when local schools were in session. The existing intersection peak hour traffic volumes are illustrated in Figure 4. Traffic count worksheets are provided in Appendix C.

Existing Intersection Levels of Service

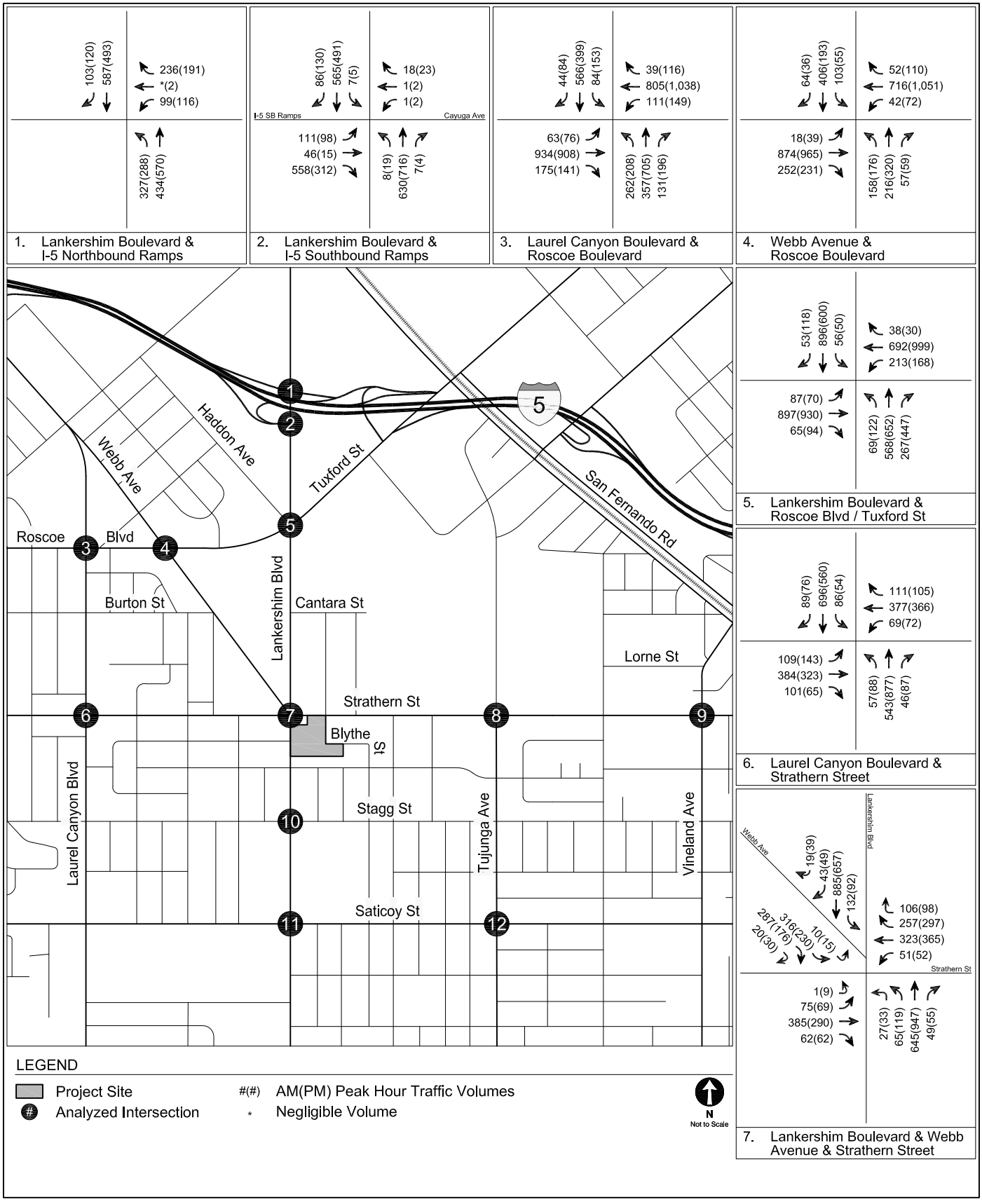
Table 5 summarizes the weekday morning and afternoon peak hour LOS results for each of the study intersections under Existing Conditions. As shown in Table 5, all 12 study intersections currently operate at LOS D or better during both the morning and afternoon peak hours.

The LOS calculation worksheets are provided in Appendix D.



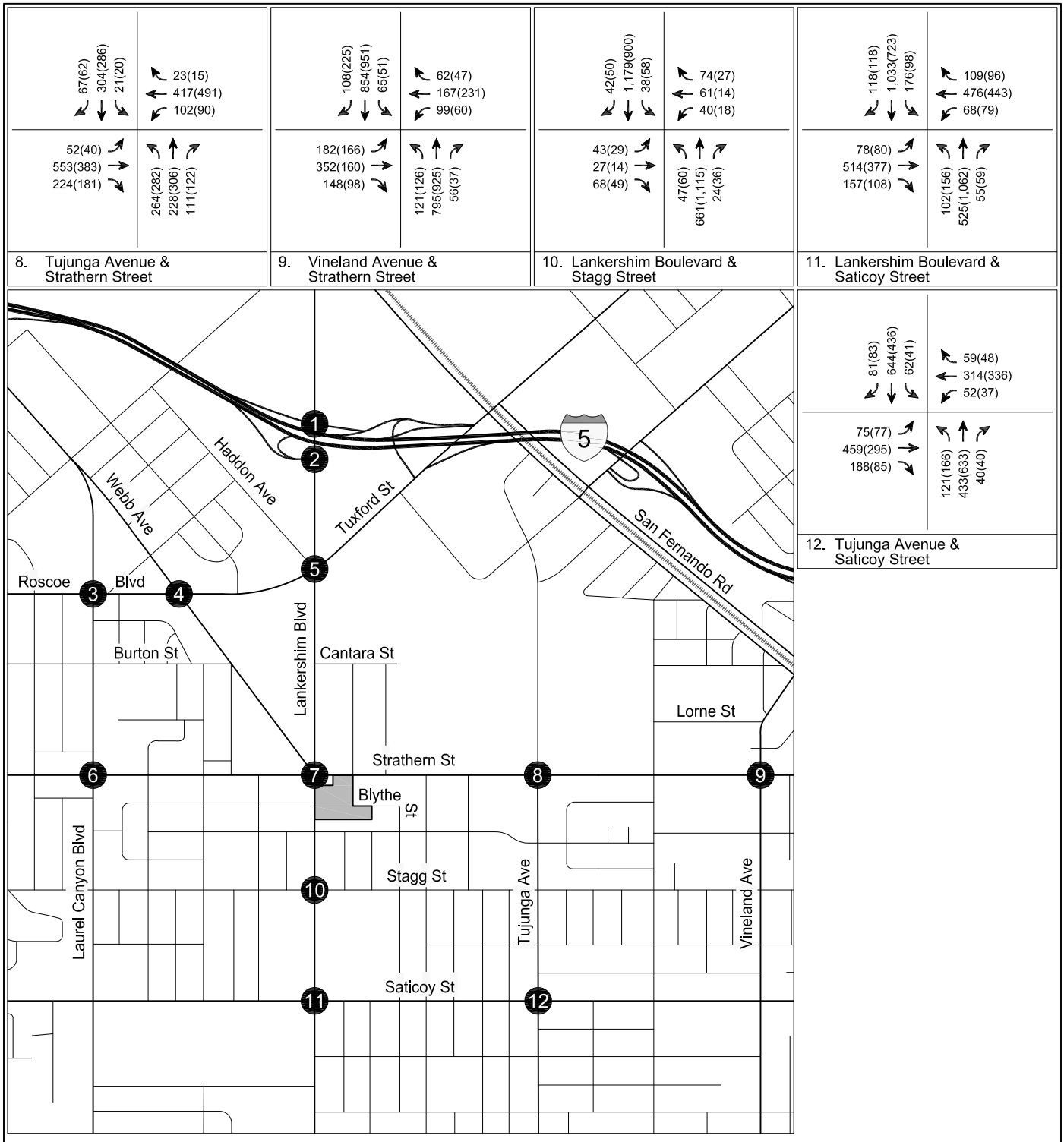
EXISTING TRANSIT SERVICE

FIGURE 3



EXISTING CONDITIONS (YEAR 2018)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 4



EXISTING CONDITIONS (YEAR 2018)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4 (CONT.)

TABLE 3
EXISTING TRANSIT SERVICE IN STUDY AREA

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Hour		PM Peak Hour	
Metro Bus Service				NB/EB	SB/WB	NB/EB	SB/WB
94	Downtown Los Angeles - Sun Valley	Local	4:30 AM - 2:00 AM	20	20	27	24
152	West Hills - Sun Valley - North Hollywood	Local	5:00 AM - 12:00 AM	20	16	13	22
169	Burbank - Woodland Hills	Local	5:30 AM - 8:30 PM	60	48	60	60
222	Sunland - Hollywood	Local	5:30 AM - 1:00 AM	40	60	60	48
224	Sylmar - Studio City	Local	7:30 AM - 6:00 PM	14	11	12	14
230	Sylmar - Studio City	Local	5:30 AM - 11:00 PM	22	22	20	27
353	West Hills - North Hollywood	Local	5:00 AM - 12:00 AM	20	16	13	22
794	Downtown Los Angeles - Burbank - Sylmar	Rapid	5:30 AM - 9:30 PM	22	24	24	27

Notes
Metro: Los Angeles County Metropolitan Transportation Authority
LADOT: Los Angeles Department of Transportation

TABLE 4
TRANSIT SYSTEM CAPACITY SERVING PROJECT SITE

Provider, Route, and Stop Location		Capacity per Trip [a]	Peak Hour Ridership				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service [b]										
224	Lankershim Boulevard at Strathern Street	50	38	26	19	14	31	36	132	189
353	Lankershim Boulevard at Strathern Street	50	23	38	18	20	32	30	96	113
Morning Peak Hour - Total Transit System Capacity									**530**	

Provider, Route, and Stop Location		Capacity per Trip [a]	Peak Hour Ridership				Average Remaining Capacity per Trip		Remaining Peak Hour Capacity	
			Peak Load		Average Load					
			NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB
Metro Bus Service [b]										
224	Lankershim Boulevard at Strathern Street	50	20	44	13	19	37	31	185	132
353	Lankershim Boulevard at Strathern Street	50	24	23	15	16	35	34	158	94
Afternoon Peak Hour - Total Transit System Capacity									**569**	

Notes
Metro: Los Angeles County Metropolitan Transportation Authority
[a] Capacity assumptions:
Metro Regular Bus - 40 seated / 50 standing.
[b] Ridership information based on data from Metro for April 2017.

TABLE 5
EXISTING CONDITIONS (YEAR 2018)
SIGNALIZED INTERSECTION LEVEL OF SERVICE

No.	Intersection	Peak Hour	Existing Conditions	
			V/C	LOS
1.	Lankershim Boulevard & I-5 NB Ramps	AM PM	0.501 0.409	A A
2.	Lankershim Boulevard & I-5 SB Ramps / Cayuga Avenue	AM PM	0.485 0.345	A A
3.	Laurel Canyon Boulevard & Roscoe Boulevard	AM PM	0.717 0.707	C C
4.	Webb Avenue & Roscoe Boulevard	AM PM	0.460 0.459	A A
5.	Lankershim Boulevard & Roscoe Boulevard / Tuxford Street	AM PM	0.757 0.667	C B
6.	Laurel Canyon Boulevard & Strathern Street	AM PM	0.494 0.568	A A
7.	Lankershim Boulevard & Webb Avenue & Strathern Street	AM PM	0.827 0.801	D D
8.	Tujunga Avenue & Strathern Street	AM PM	0.760 0.684	C B
9.	Vineland Avenue & Strathern Street	AM PM	0.566 0.566	A A
10.	Lankershim Boulevard & Stagg Street	AM PM	0.470 0.384	A A
11.	Lankershim Boulevard & Saticoy Street	AM PM	0.582 0.553	A A
12.	Tujunga Avenue & Saticoy Street	AM PM	0.661 0.481	B A

Chapter 3
Future without Project Conditions

Estimates of future traffic conditions both with and without the Project were developed to evaluate the potential impacts of the Project on the local street system. This discussion details the assumptions used to develop the Future without Project Conditions in Year 2023 to correspond to projected completion of the Project.

The existing traffic volumes were factored by an annual ambient growth rate to approximate regional growth and development. In addition to the ambient growth, for purposes of providing a conservative analysis of potential cumulative traffic impacts, the traffic generated by related projects was also added to estimate the Future without Project traffic conditions.

CEQA GUIDELINES REGARDING FUTURE TRAFFIC CONDITIONS

The forecast of Future without Project conditions was prepared in accordance with procedures outlined in Section 15130 of the *2018 California Environmental Quality Act*, *Statute & Guidelines, Chapter 3, Title 14, Article 9, Contents of Environmental Impact Reports,* (California Association of Environmental Professionals, December 28, 2018) ("*Guidelines"*). Specifically, two options are provided for developing the cumulative traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> "(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

As described in detail below, this analysis includes traffic growth both from future projects (option "A" above, the "Related Projects") and from regional growth projections (option "B" above, or ambient growth). *Guidelines* suggests that one option or the other be chosen, rather than both. Accordingly, the traffic analysis provides a highly conservative estimate of Future without Project traffic volumes.

AMBIENT TRAFFIC GROWTH

Existing traffic is expected to increase as a result of regional growth and development outside the Study Area. The CMP provides general growth factors based on regional modeling. As shown in Exhibit D-1 of the CMP, the West San Fernando Valley area is estimated to experience a total regional growth in traffic of 4.1% between the years of 2015 and 2025, which equates to an ambient growth of 0.41% per year. However, based on discussions with LADOT through the MOU process, a conservative ambient growth rate of 1% per year compounded annually was used to adjust the Existing traffic volumes to reflect the effects of regional growth and development by Year 2023. The total adjustment applied over the five-year period was 5.10%. This growth factor accounts for increases in traffic due to potential projects not yet proposed or are in the early stages of development, as well as projects outside of a 2.0-mile radius of the Project Site,.

RELATED PROJECTS

In accordance with the CEQA requirements in *Guidelines*, this transportation study also considered the effects of the Project in relation to the Related Projects. With this information, the potential impact of the Project is, therefore, evaluated within the context of the cumulative impact of all ongoing development.

The list of Related Projects is based on information provided by the Department of City Planning and LADOT, as well as recent studies of projects in the area. The Related Projects in the Study Area are detailed in Table 6 and shown in Figure 5. Related Projects within a 2.0-mile radius of the Project Site were considered in the Future Year analysis, as it is assumed that trips generated by these Related Projects would generally affect traffic patterns in the Study Area. Though the

buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this study and conservatively assumed to be completed by the Project buildout Year 2023. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, alone, provides an overestimation of the actual traffic volume growth in the area than would likely occur in the next four years prior to Project buildout. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project cumulative condition is more conservative.

Using these conservative assumptions, the potential transportation impacts of the Project were evaluated within the context of the worst-case cumulative impact of all prospective development. The development of estimated traffic volumes added to the study intersections as a result of Related Projects involves the use of a three-step process: trip generation, trip distribution, and trip assignment.

Trip Generation

Trip generation estimates for the Related Projects were provided by LADOT or were calculated using a combination of previous study findings and the trip generation rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, 2017). The Related Projects trip generation estimates summarized in Table 6 are very conservative in that they do not in every case account for either the trips generated by the existing uses to be removed or the likely use of other travel modes (transit, bicycle, walk, etc.). Further, they do not in every case account for the internal capture trips within a multi-use development, nor the interaction of trips between multiple Related Projects within the area, in which one Related Project serves as the origin for a trip destined for another Related Project.

Trip Distribution

The geographic distribution of the traffic generated by the Related Projects is dependent on several factors. These include the type and density of the proposed land uses, the geographic distribution of the population from which the employees/residents and potential patrons of the

proposed developments are drawn, and the location of these projects in relation to the surrounding street system. These factors are considered along with logical travel routes through the street system to develop a reasonable pattern of trip distribution.

Trip Assignment

The trip generation estimates for the Related Projects were assigned to the local street system using the trip distribution pattern described above. Figure 6 shows the peak hour traffic volumes associated with these Related Projects at the study intersections. These volumes were then added to the existing traffic volumes after adjustment for ambient growth through the projected buildout year of 2023. As discussed above, this is a conservative approach as many of the Related Projects may be reflected in the ambient growth rate. These volumes represent the Future without Project Conditions (i.e., existing traffic volumes added to ambient traffic growth and Related Project traffic growth) and are shown in Figure 7 for the 12 study intersections.

FUTURE IMPROVEMENTS

2010 Bicycle Plan

The 2010 Bicycle Plan identifies the City's vision for a more integrated bicycle network throughout the City, including within the Study Area. Within the Study Area, the 2010 Bicycle Plan proposes bicycle routes/bicycle friendly streets on Saticoy Street. Upon consultation with LADOT, no changes to vehicular lane configurations as a result of potential new bicycle routes were assumed in this analysis

Mobility Plan

In the Mobility Plan, the City identifies key corridors as components of various "mobility-enhanced networks." Each network is intended to focus on improving a particular aspect of urban mobility, including transit, neighborhood connectivity, bicycles, pedestrians, and vehicles. The specific improvements that may be implemented in those networks have not yet been

identified and there is no schedule for implementation; therefore, no changes to vehicular lane configurations were made as a result of the Mobility Plan. However, the following mobility-enhanced networks included corridors within the Study Area:

- Transit Enhanced Network: Lankershim Boulevard and Roscoe Boulevard/Tuxford Street west of Lankershim Boulevard were identified as a Moderate Plus Transit Enhanced Street and San Fernando Road was identified as a Moderate Transit Enhanced Street.

- Neighborhood Enhanced Network: Strathern Street, Tujunga Avenue, and Saticoy Street were identified as part of the Neighborhood Enhanced Network.

- Bicycle Enhanced Network / Bicycle Lane Network / Protected Bicycle Facilities Network: Lankershim Boulevard and Roscoe Boulevard/Tuxford Street west of Lankershim Boulevard were identified for Tier I Protected Bicycle Lanes.

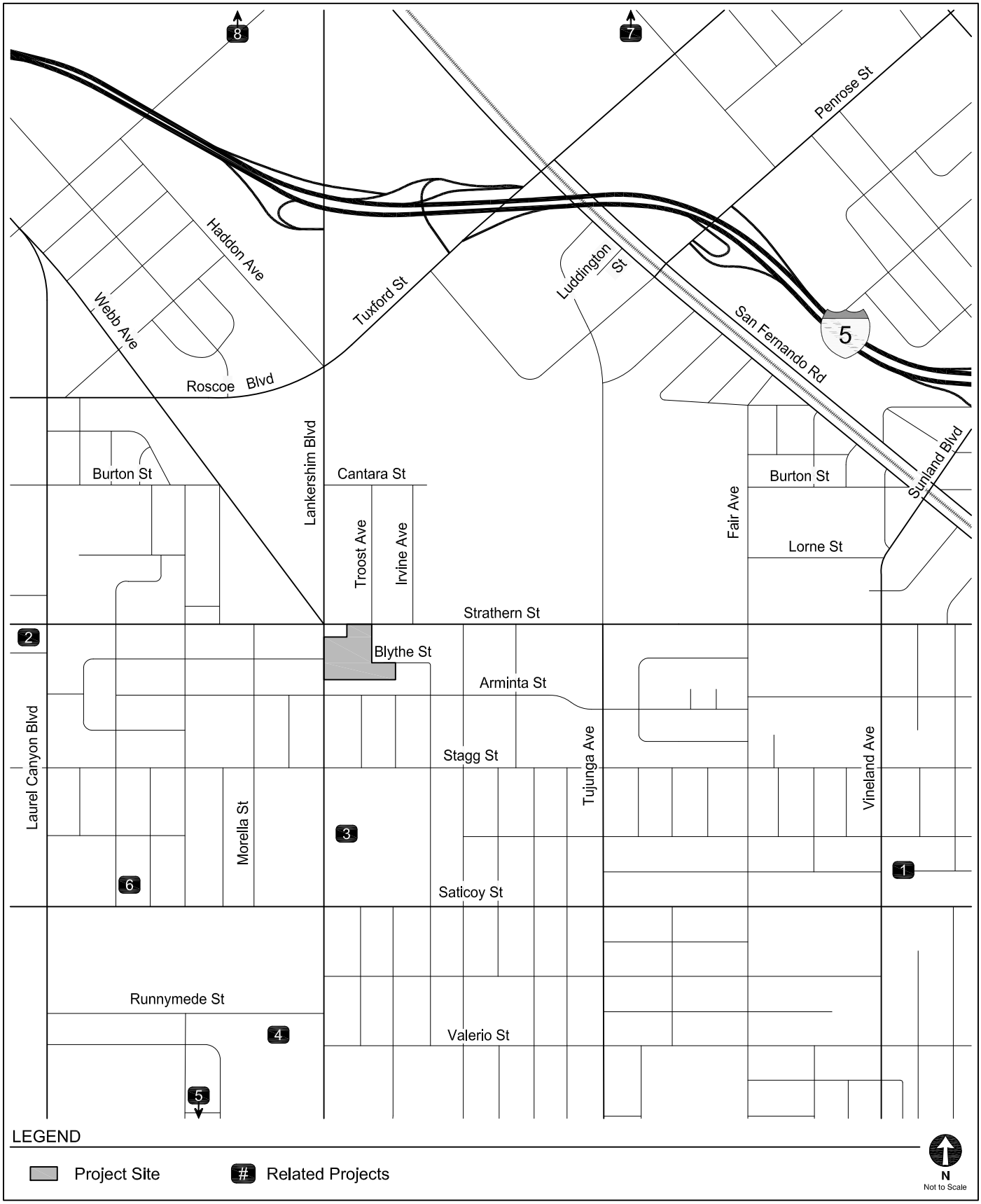
- Vehicle Enhanced Network: No streets in the Study Area were identified as part of a Vehicle Enhanced Network.

- Pedestrian Enhanced Districts: Strathern Street between Morella Avenue and Troost Avenue, Lankershim Boulevard between Stagg Street and Strathern Street, Roscoe Boulevard west of Laurel Canyon Boulevard, Laurel Canyon Boulevard north of Burton Street, and San Fernando Road between Burton Street and Luddington Street were identified as part of the Pedestrian Enhanced Districts.

FUTURE WITHOUT PROJECT INTERSECTION LEVELS OF SERVICE

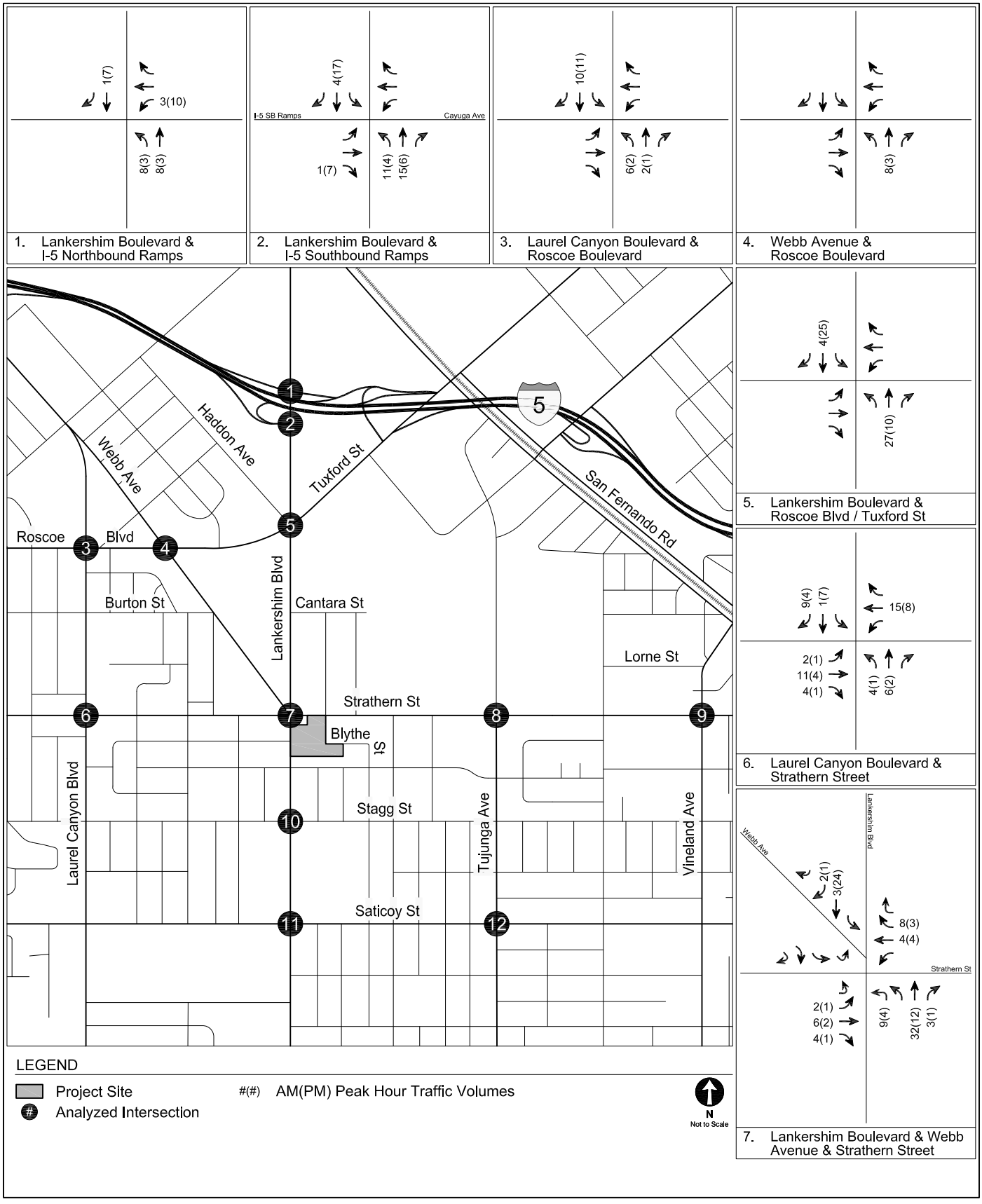
Table 7 summarizes the weekday morning and afternoon peak hour LOS results for each of the signalized study intersections under Future without Project Conditions. As shown, all 12 study intersections are projected to operate at LOS D or better during both the weekday morning and afternoon peak hours.

The LOS calculation worksheets are provided in Appendix D.



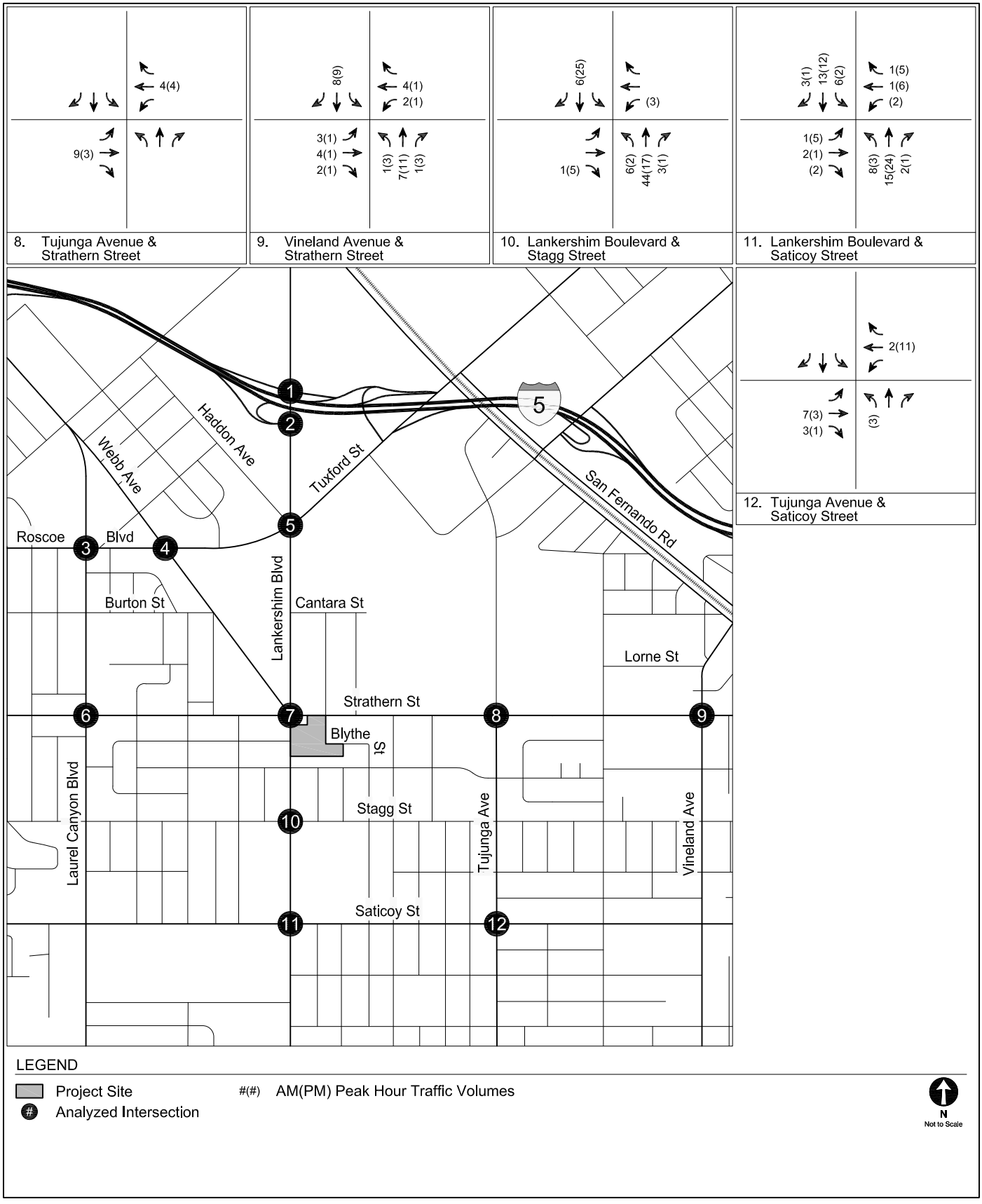
LOCATIONS OF RELATED PROJECTS

FIGURE 5



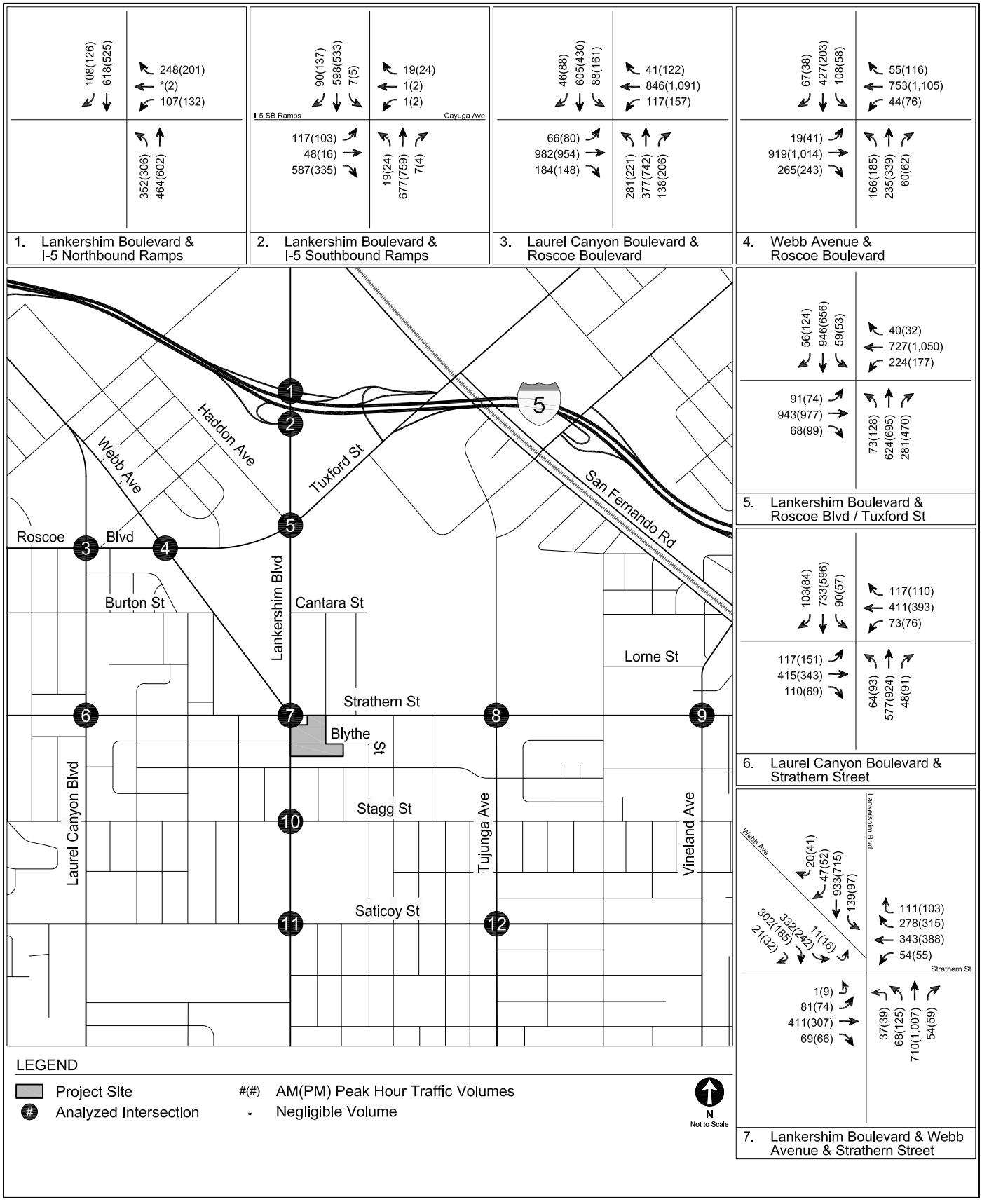
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
6



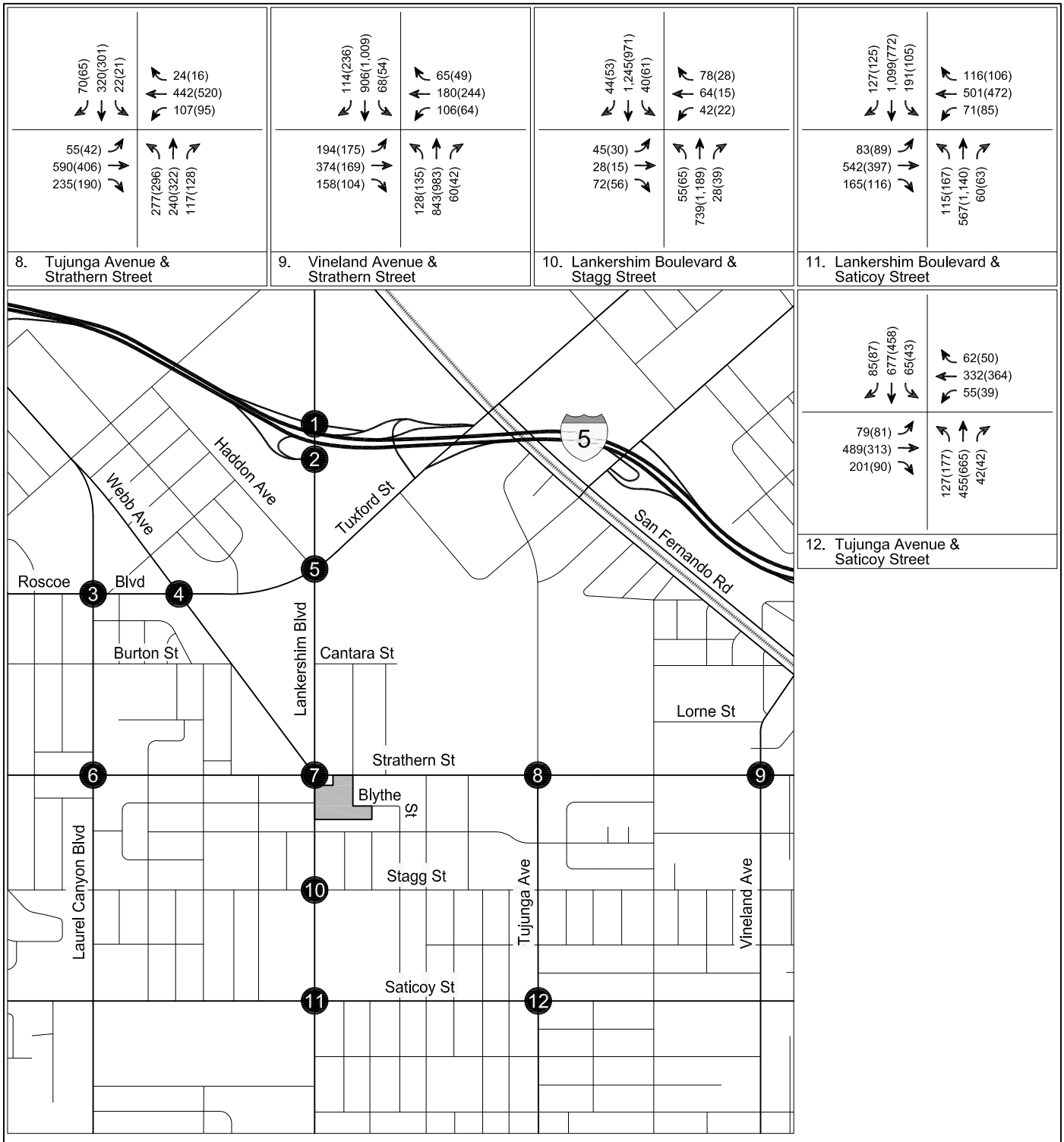
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
6 (CONT.)



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 7



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
7 (CONT.)

TABLE 6
RELATED PROJECTS

No.	Project	Address	Description	Trip Generation [a]						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	Mixed-Use	7634 Vineland Ave	10,750 sf retail, 11,950 sf office	466	20	5	25	11	25	36
2.	7-Eleven	7955 Laurel Canyon Bl	4,500 sf retail	586	35	37	72	14	12	26
3.	Residential Project	7660 Lankershim Bl	65 apartment units, 99 condominium units	856	5	56	61	54	21	75
4.	Mixed-Use	7401 N Lankershim Bl	108 apartment units, 2,370 sf retail	618	6	40	46	39	16	55
5.	CD02 Sherman Way Navigation Center	11839 W Sherman Way	Homeless Services Center	31	4	2	6	4	4	8
6.	LAUSD VRE School #7	11967 Saticoy St	800 seats K-5 school	1,430	174	143	317	41	49	90
7.	Community Recycling & Resource Recovery	9189 De Garmo Avenue	Recycling facility expansion to increase processing capacity	3,090	135	130	265	162	147	309
8.	Apartment	11957 W Allegheny Street	88 apartment units	585	9	36	45	35	19	54

Notes

[a] Related project information provided by the Los Angeles Department of Transportation in December 2018, Department of City Planning, and recent traffic studies prepared in the area.

TABLE 7
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2023)
SIGNALIZED INTERSECTION LEVEL OF SERVICE

No.	Intersection	Peak Hour	Future without Project Conditions	
			V/C	LOS
1.	Lankershim Boulevard & I-5 NB Ramps	AM PM	0.538 0.440	A A
2.	Lankershim Boulevard & I-5 SB Ramps / Cayuga Avenue	AM PM	0.517 0.373	A A
3.	Laurel Canyon Boulevard & Roscoe Boulevard	AM PM	0.767 0.748	C C
4.	Webb Avenue & Roscoe Boulevard	AM PM	0.489 0.487	A A
5.	Lankershim Boulevard & Roscoe Boulevard / Tuxford Street	AM PM	0.803 0.716	D C
6.	Laurel Canyon Boulevard & Strathern Street	AM PM	0.539 0.609	A B
7.	Lankershim Boulevard & Webb Avenue & Strathern Street	AM PM	0.889 0.854	D D
8.	Tujunga Avenue & Strathern Street	AM PM	0.809 0.727	D C
9.	Vineland Avenue & Strathern Street	AM PM	0.607 0.606	B B
10.	Lankershim Boulevard & Stagg Street	AM PM	0.505 0.419	A A
11.	Lankershim Boulevard & Saticoy Street	AM PM	0.627 0.602	B B
12.	Tujunga Avenue & Saticoy Street	AM PM	0.703 0.515	C A

Chapter 4
Project Traffic

This chapter describes the assumptions and methodology used in developing the traffic volumes associated with the proposed Project within the Study Area.

PROJECT DESCRIPTION

The Project proposes the redevelopment of the Project Site with a new seven-story mixed-use development consisting of 432 apartment units, a 14,000 sf pharmacy with a drive-through, and 8,000 sf of restaurant use. The construction yard and the vacant commercial and office buildings that are currently occupying the Project Site would be removed with development of the Project.

Parking for the Project would be provided on-site within one subterranean level and one at-grade level. Access to the Project parking facilities would be provided via driveways along Lankershim Boulevard and Strathern Street. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard.

PROJECT TRIP GENERATION

The number of trips expected to be generated by the Project were estimated using rates published in *Trip Generation,10th Edition*. These rates are based on surveys of similar land uses at sites around the country and are provided as both daily rates and morning and afternoon peak hour rates. They relate the number of vehicle trips traveling to and from the Project Site to the size of development of each land use.

Appropriate trip generation reductions to account for public transit usage and pass-by trips were made in consultation with LADOT and in accordance with *Transportation Impact Study*

Guidelines. A 10% adjustment was made to account for public transit usage/walk-ins. A pass-by reduction was also applied to the pharmacy and restaurant uses to account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

Due to the unique uses and operations of the existing construction yard, empirical trip rates were based on peak hour trip data collected at the Project Site in September 2018. Detailed traffic count worksheets are provided in Appendix C.

As shown in Table 8, after accounting for the adjustments detailed above and the removal of the existing uses currently on-site, the Project is estimated to generate 3,473 net new trips on a typical weekday, including 210 net new morning peak hour trips (76 inbound, 134 outbound) and 295 net new afternoon peak hour trips (172 inbound, 123 outbound).

PROJECT TRIP DISTRIBUTION

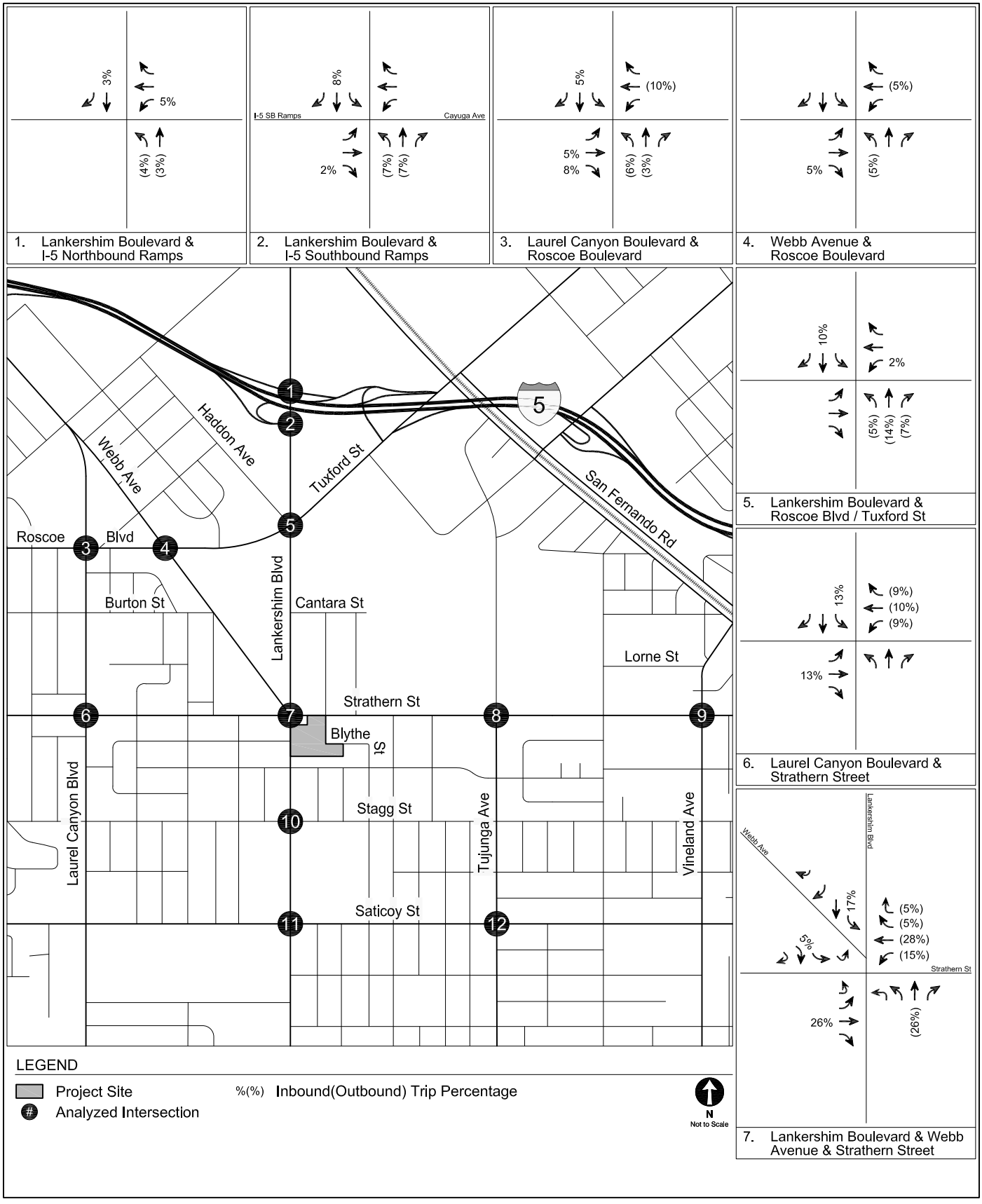
Similar to the trip distribution of traffic for the Related Projects described in Chapter 3, the geographic distribution of trips generated by the Project is dependent on the location of employment and residential centers from which patrons of the Project would be drawn, characteristics of the street system serving the Project Site, and the level of accessibility of the routes to and from the Project Site, existing intersection traffic volumes, the Project ingress/egress availability based on the proposed site access and circulation scheme, the location of the proposed driveways, as well as input from LADOT staff.

The intersection-level trip distribution patterns for the Project are shown in Figure 8. Generally, the pattern is as follows:

- 20% to/from the north
- 35% to/from the south
- 25% to/from the west
- 20% to/from the east

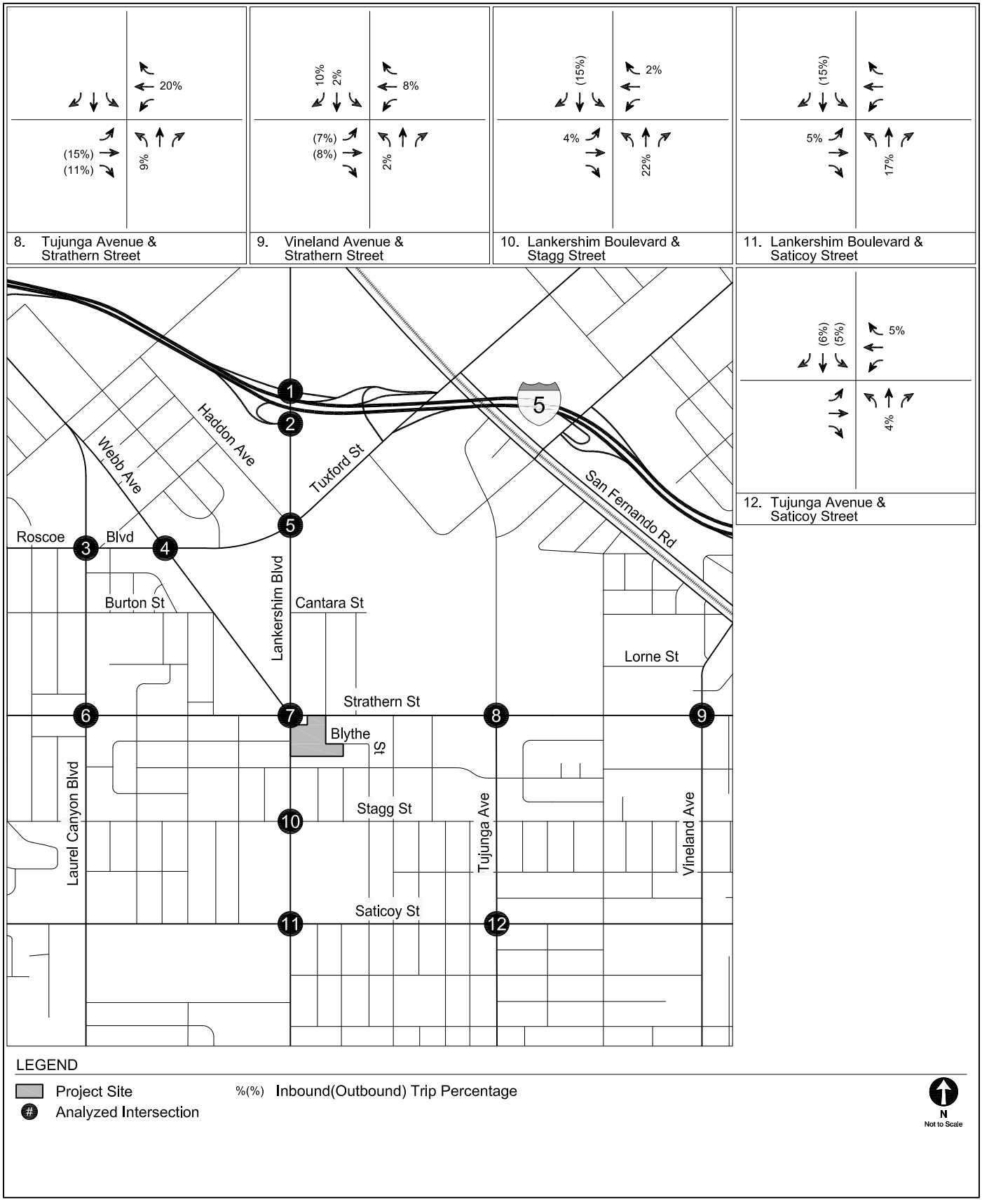
PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 8 and the trip distribution patterns shown in Figure 8 were used to assign the Project-generated traffic through the study intersections. Figure 9 illustrates the Project-only traffic volumes at the study intersections during typical weekday morning and afternoon peak hours.



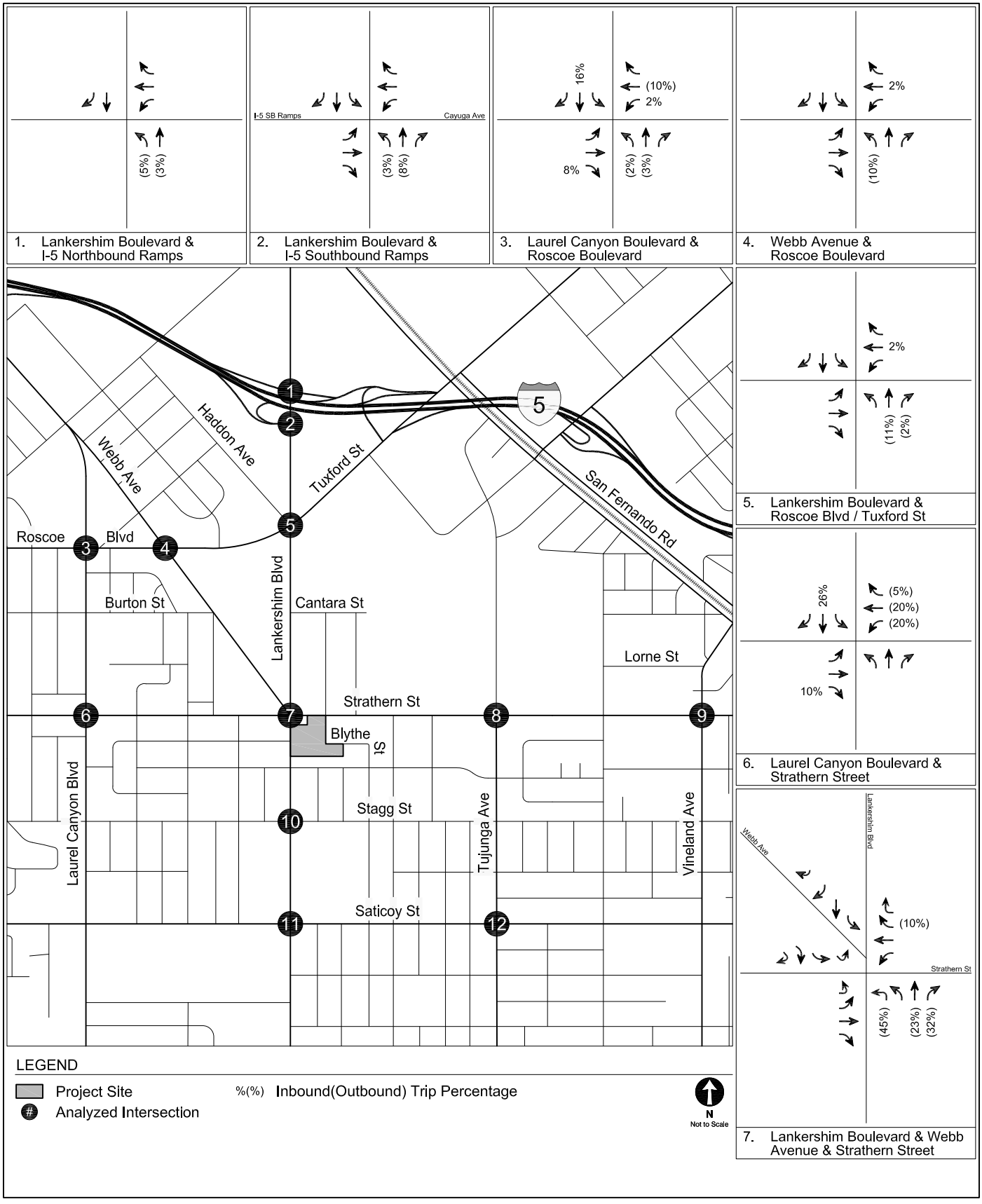
PROJECT TRIP DISTRIBUTION
RESIDENTIAL

FIGURE
8A



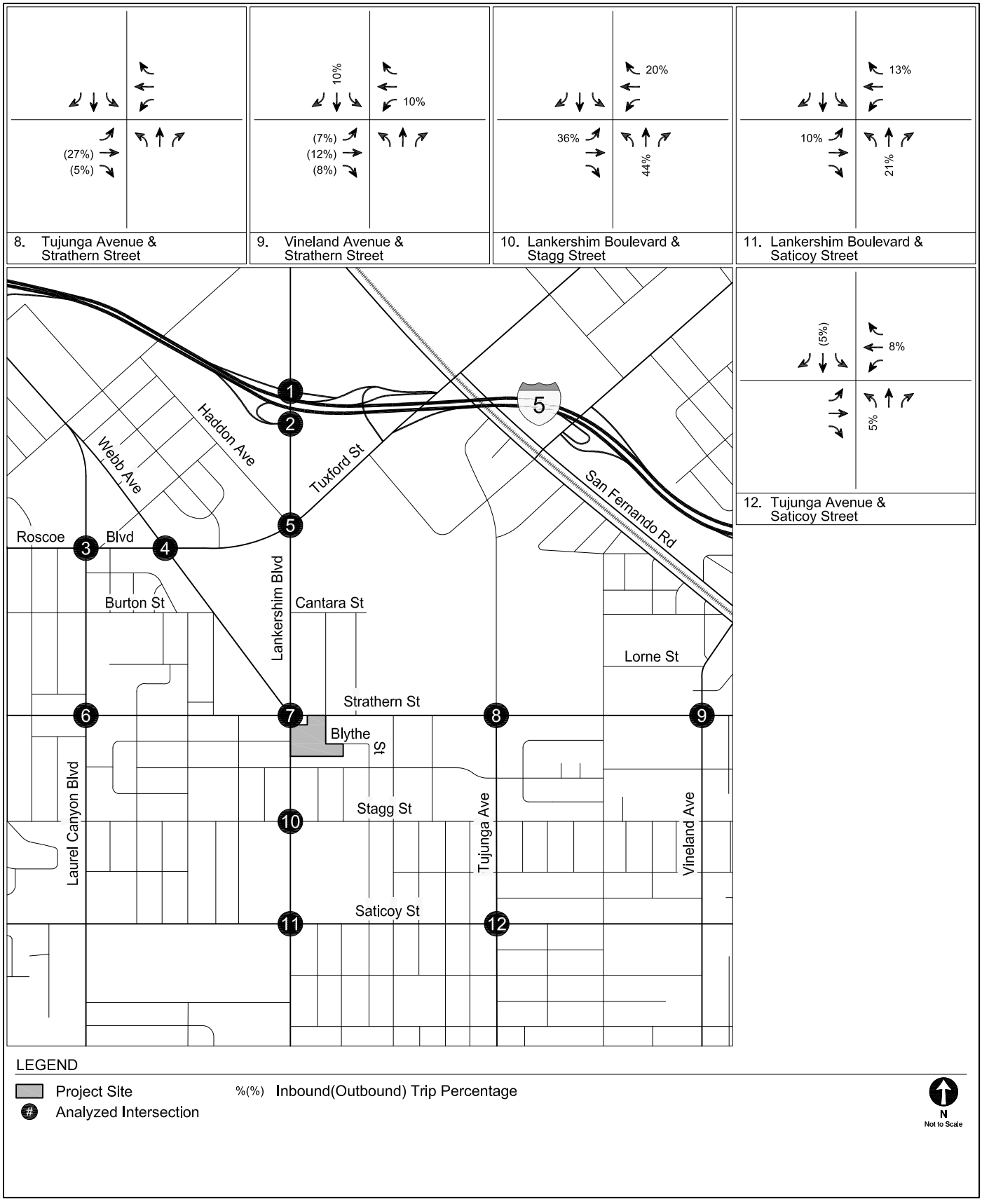
PROJECT TRIP DISTRIBUTION
RESIDENTIAL

FIGURE
8A (CONT.)



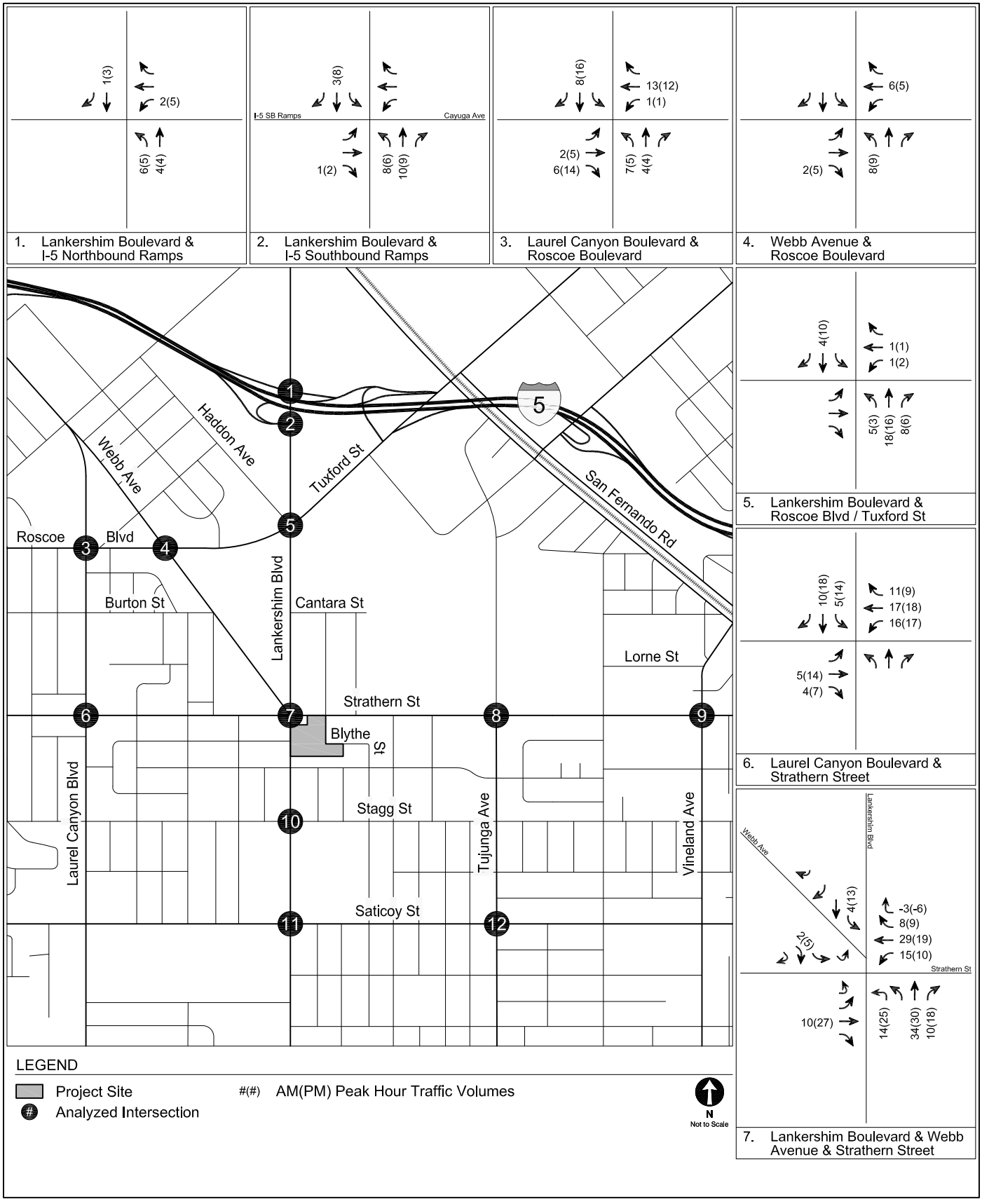
PROJECT TRIP DISTRIBUTION
COMMERCIAL

FIGURE
8B



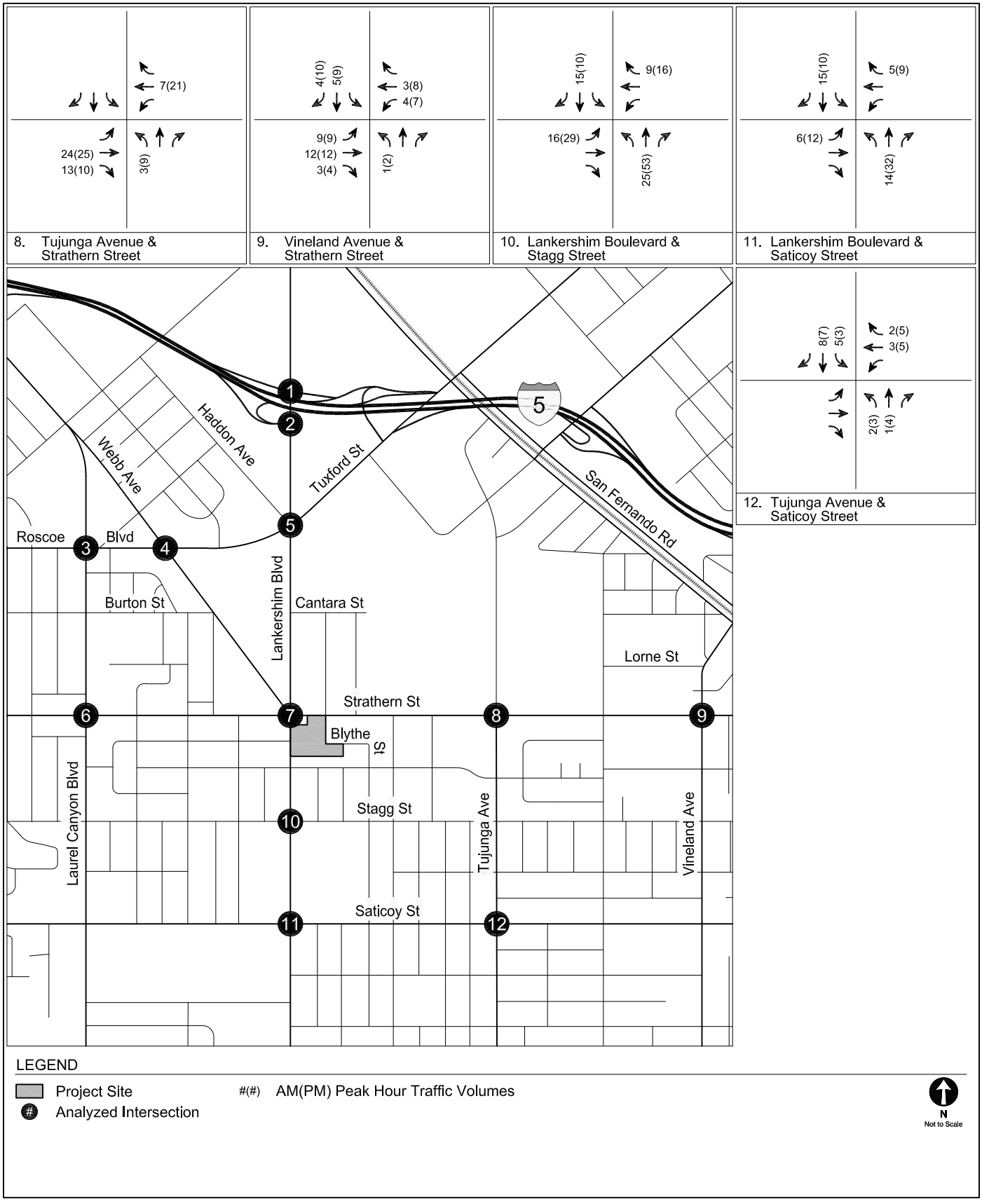
PROJECT TRIP DISTRIBUTION
COMMERCIAL

FIGURE
8B (CONT.)



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9 (CONT.)

TABLE 8
TRIP GENERATION

Land Use	ITE Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates [a]									
Multifamily Housing (Mid-Rise)	221	per du	5.44	26%	74%	0.36	61%	39%	0.44
Pharmacy/Drugstore with Drive-Through Window	881	per ksf	109.16	53%	47%	3.84	50%	50%	10.29
High-Turnover Restaurant	932	per ksf	112.18	55%	45%	9.94	62%	38%	9.77
Construction Yard	[b]	per ksf	[c]	50%	50%	0.07	50%	50%	0.02
Proposed Project									
Multifamily Housing (Mid-Rise)	221	432 du	2,350	41	115	156	116	74	190
Less Walk-In/Transit Reduction - 10% [d]			*(235)*	*(4)*	*(12)*	*(16)*	*(12)*	*(7)*	*(19)*
Subtotal - Residential			**2,115**	**37**	**103**	**140**	**104**	**67**	**171**
Pharmacy/Drugstore with Drive-Through Window	881	14 ksf	1,528	29	25	54	72	72	144
Less 5% Internal Capture [e]			*(76)*	*(1)*	*(2)*	*(3)*	*(4)*	*(3)*	*(7)*
Less Walk-In/Transit Reduction - 10% [d]			*(145)*	*(3)*	*(2)*	*(5)*	*(7)*	*(7)*	*(14)*
Pass-by Reduction - 40% [f]			*(523)*	*(10)*	*(8)*	*(18)*	*(24)*	*(25)*	*(49)*
Subtotal - Pharmacy with Drive-Through Window			**784**	**15**	**13**	**28**	**37**	**37**	**74**
High-Turnover Restaurant	932	8 ksf	897	44	36	80	48	30	78
Less 5% Internal Capture [e]			*(45)*	*(2)*	*(2)*	*(4)*	*(2)*	*(2)*	*(4)*
Less Walk-In/Transit Reduction - 10% [d]			*(85)*	*(4)*	*(4)*	*(8)*	*(5)*	*(2)*	*(7)*
Pass-by Reduction - 20% [f]			*(153)*	*(8)*	*(6)*	*(14)*	*(8)*	*(5)*	*(13)*
Subtotal - Restaurant			**614**	**30**	**24**	**54**	**33**	**21**	**54**
Total - Proposed Project			**3,513**	**82**	**140**	**222**	**174**	**125**	**299**
Existing Uses to be Removed									
Construction Yard	[b]	180 ksf	**40**	**6**	**6**	**12**	**2**	**2**	**4**
TOTAL NET NEW PROJECT TRIPS			**3,473**	**76**	**134**	**210**	**172**	**123**	**295**

Notes:
1,000 square feet = ksf.
[a] Source: *Trip Generation, 10th Edition* , Institute of Transportation Engineers, 2017.
[b] Trips associated with the existing construciton yard were based on empirical counts collected at the Project driveway on Thursday, September 27th, 2018.
[c] A 24-hour count was not collected, therefore, the PM peak hour trips are assumed to equate to 10% of the daily trips.
[d] Per LADOT's *Transportation Impact Study Guidelines,* the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals.
[e] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system (e.g., residents visiting restaurant or retail uses).
[f] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.

Chapter 5
Existing with Project Conditions

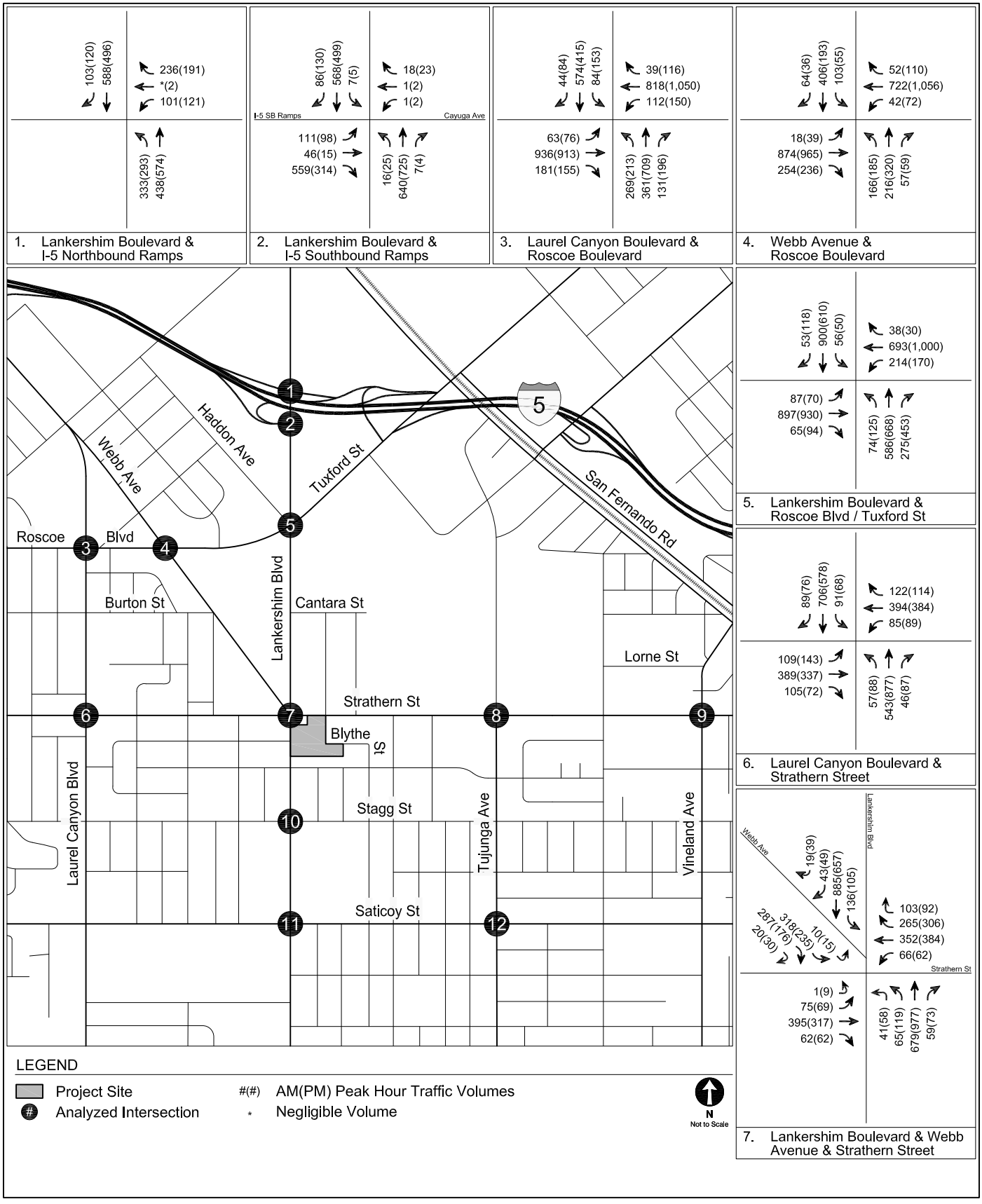
This chapter describes the results of the analysis of intersection operating conditions associated with the Project when compared to Existing Conditions. The analysis year of 2018 corresponds with the Existing Conditions data and analysis presented in Chapter 2. The Existing with Project Conditions reflect Existing Conditions with the addition of Project traffic.

EXISTING WITH PROJECT TRAFFIC VOLUMES

The Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 9 were added to the existing morning and afternoon peak hour traffic volumes shown in Figure 4. The resulting volumes are illustrated in Figure 10 and represent Existing with Project Conditions after development of the Project under Existing Conditions.

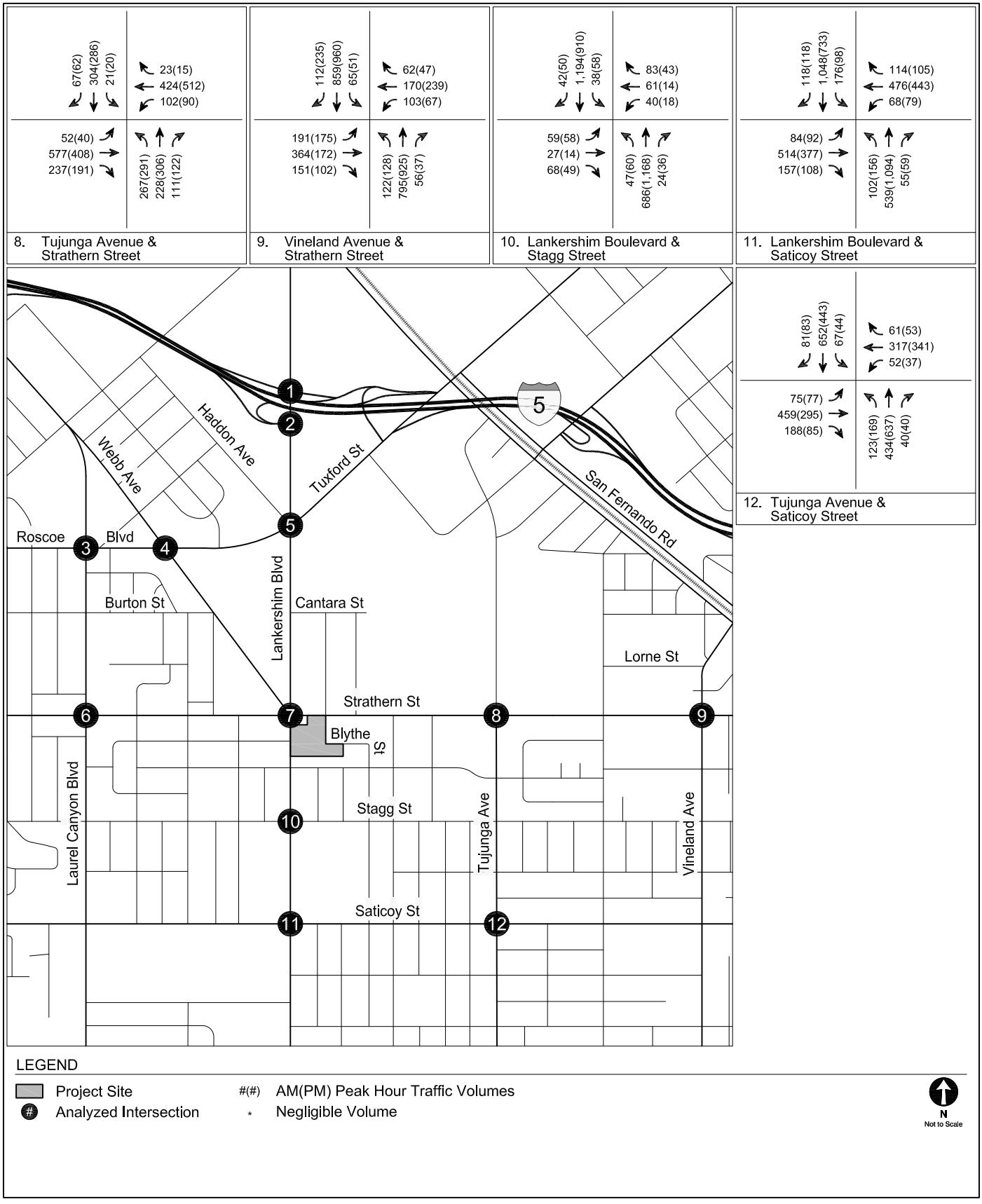
EXISTING WITH PROJECT INTERSECTION LEVELS OF SERVICE

Table 9 summarizes the results of the Existing with Project Conditions during the weekday morning and afternoon peak hours for the 12 study intersections. As shown in Table 9, all 12 of the study intersections are expected to continue to operate at LOS D or better during both the morning and afternoon peak hours under Existing with Project Conditions.



EXISTING WITH PROJECT CONDITIONS (YEAR 2018)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 10



EXISTING WITH PROJECT CONDITIONS (YEAR 2018)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
10 (CONT.)

TABLE 9
EXISTING WITH PROJECT CONDITIONS (YEAR 2018)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
1.	Lankershim Boulevard &	AM	0.501	A	0.506	A	0.005	NO
	I-5 NB Ramps	PM	0.409	A	0.414	A	0.005	NO
2.	Lankershim Boulevard &	AM	0.485	A	0.486	A	0.001	NO
	I-5 SB Ramps / Cayuga Avenue	PM	0.345	A	0.348	A	0.003	NO
3.	Laurel Canyon Boulevard &	AM	0.717	C	0.726	C	0.009	NO
	Roscoe Boulevard	PM	0.707	C	0.711	C	0.004	NO
4.	Webb Avenue &	AM	0.460	A	0.465	A	0.005	NO
	Roscoe Boulevard	PM	0.459	A	0.466	A	0.007	NO
5.	Lankershim Boulevard &	AM	0.757	C	0.763	C	0.006	NO
	Roscoe Boulevard / Tuxford Street	PM	0.667	B	0.675	B	0.008	NO
6.	Laurel Canyon Boulevard &	AM	0.494	A	0.509	A	0.015	NO
	Strathern Street	PM	0.568	A	0.589	A	0.021	NO
7.	Lankershim Boulevard & Webb Avenue &	AM	0.827	D	0.854	D	0.027	**YES**
	Strathern Street	PM	0.801	D	0.826	D	0.025	**YES**
8.	Tujunga Avenue &	AM	0.760	C	0.778	C	0.018	NO
	Strathern Street	PM	0.684	B	0.704	C	0.020	NO
9.	Vineland Avenue &	AM	0.566	A	0.579	A	0.013	NO
	Strathern Street	PM	0.566	A	0.581	A	0.015	NO
10.	Lankershim Boulevard &	AM	0.470	A	0.491	A	0.021	NO
	Stagg Street	PM	0.384	A	0.421	A	0.037	NO
11.	Lankershim Boulevard &	AM	0.582	A	0.587	A	0.005	NO
	Saticoy Street	PM	0.553	A	0.574	A	0.021	NO
12.	Tujunga Avenue &	AM	0.661	B	0.667	B	0.006	NO
	Saticoy Street	PM	0.481	A	0.491	A	0.010	NO

Chapter 6
Future with Project Conditions

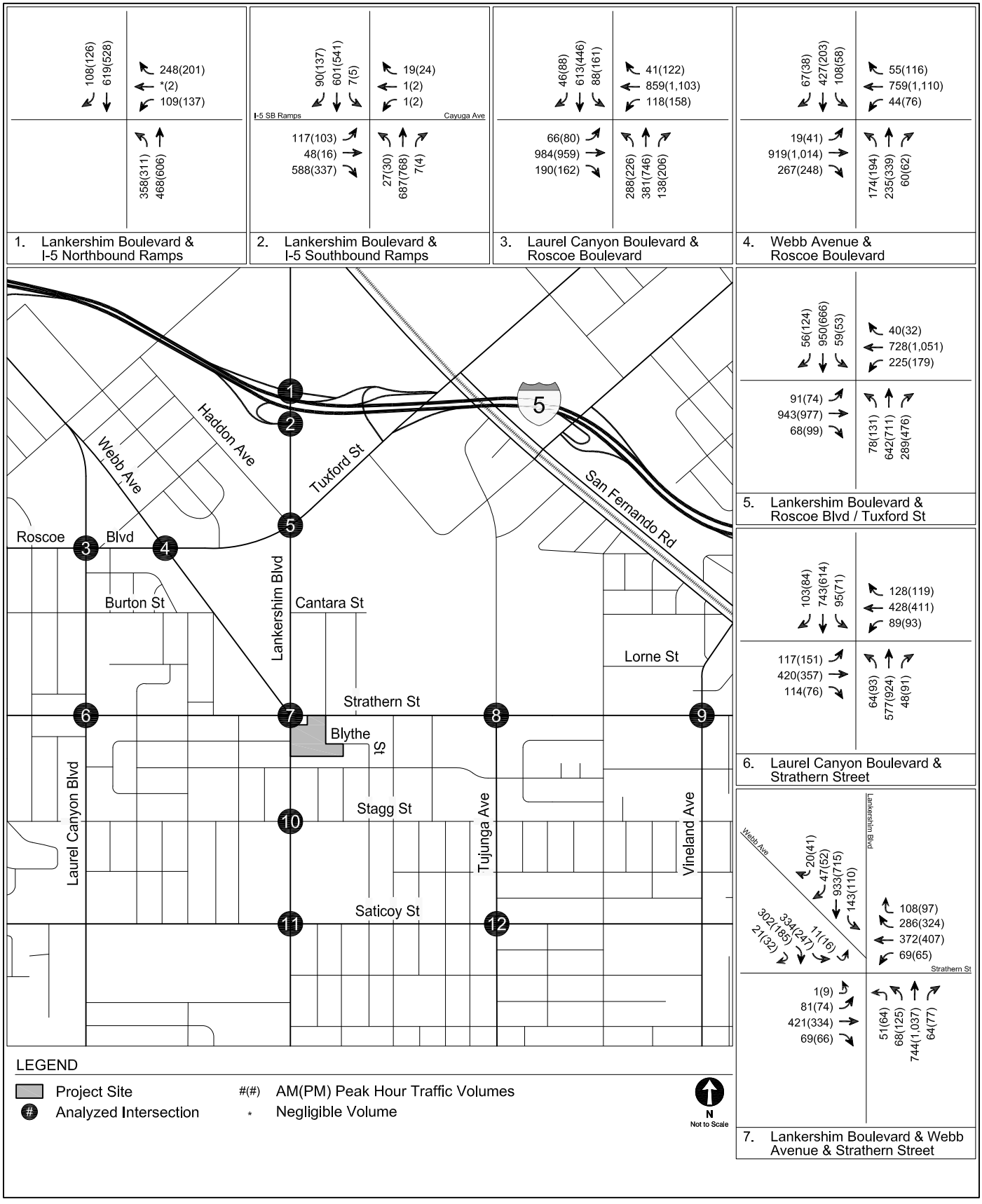
This chapter describes the results of the analysis of intersection operating conditions associated with the Project when compared to Future without Project (cumulative) Conditions. The analysis year of 2023 corresponds to the Future without Project data and analysis developed in Chapter 3.

FUTURE WITH PROJECT TRAFFIC VOLUMES

The Project-only morning and afternoon peak hour traffic volumes described in Chapter 4 and shown in Figure 9 were added to the Future without Project morning and afternoon peak hour traffic volumes shown in Figure 7. The resulting volumes are illustrated in Figure 11 and represent Future with Project Conditions after development of the Project in Year 2023.

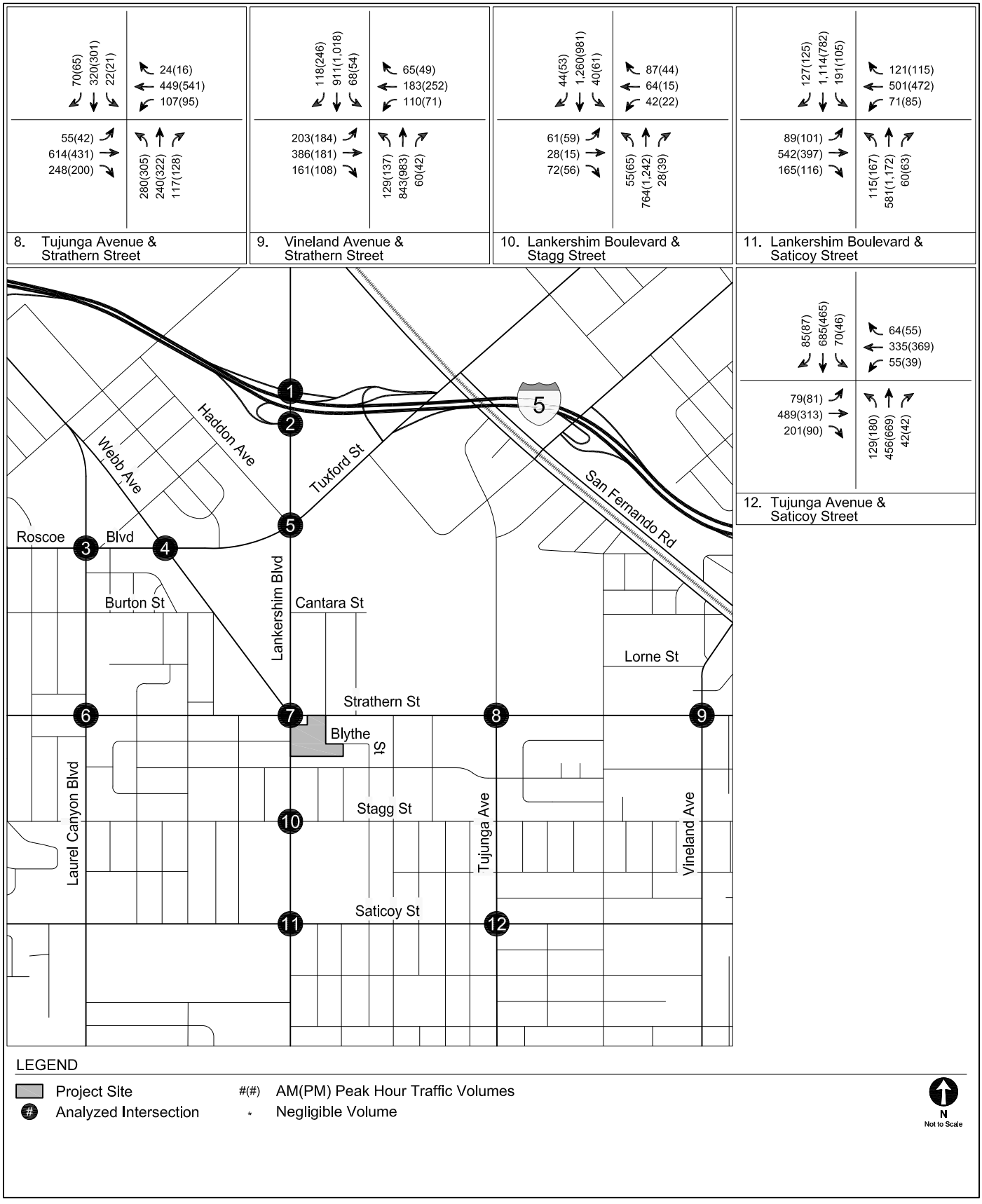
FUTURE WITH PROJECT INTERSECTION LEVELS OF SERVICE

Table 10 summarizes the results of the Future with Project Conditions during the weekday morning and afternoon peak hours for the 12 study intersections. As shown in Table 10, 11 of the 12 study intersections continue to operate at LOS D or better during both the morning and afternoon peak hours under Future with Project Conditions. The remaining intersection of Lankershim Boulevard & Webb Avenue & Strathern Street (Intersection #7) operates at LOS E during the morning peak hour and at LOS D in the afternoon peak hour.



FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 11



FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
11 (CONT.)

TABLE 10
FUTURE WITH PROJECT CONDITIONS (YEAR 2023)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions			
			V/C	LOS	V/C	LOS	Change in V/C	Impact
1.	Lankershim Boulevard &	AM	0.538	A	0.543	A	0.005	NO
	I-5 NB Ramps	PM	0.440	A	0.445	A	0.005	NO
2.	Lankershim Boulevard &	AM	0.517	A	0.518	A	0.001	NO
	I-5 SB Ramps / Cayuga Avenue	PM	0.373	A	0.375	A	0.002	NO
3.	Laurel Canyon Boulevard &	AM	0.767	C	0.776	C	0.009	NO
	Roscoe Boulevard	PM	0.748	C	0.752	C	0.004	NO
4.	Webb Avenue &	AM	0.489	A	0.495	A	0.006	NO
	Roscoe Boulevard	PM	0.487	A	0.495	A	0.008	NO
5.	Lankershim Boulevard &	AM	0.803	D	0.809	D	0.006	NO
	Roscoe Boulevard / Tuxford Street	PM	0.716	C	0.723	C	0.007	NO
6.	Laurel Canyon Boulevard &	AM	0.539	A	0.554	A	0.015	NO
	Strathern Street	PM	0.609	B	0.630	B	0.021	NO
7.	Lankershim Boulevard & Webb Avenue &	AM	0.889	D	0.913	E	0.024	**YES**
	Strathern Street	PM	0.854	D	0.880	D	0.026	**YES**
8.	Tujunga Avenue &	AM	0.809	D	0.827	D	0.018	NO
	Strathern Street	PM	0.727	C	0.747	C	0.020	NO
9.	Vineland Avenue &	AM	0.607	B	0.621	B	0.014	NO
	Strathern Street	PM	0.606	B	0.621	B	0.015	NO
10.	Lankershim Boulevard &	AM	0.505	A	0.526	A	0.021	NO
	Stagg Street	PM	0.419	A	0.456	A	0.037	NO
11.	Lankershim Boulevard &	AM	0.627	B	0.631	B	0.004	NO
	Saticoy Street	PM	0.602	B	0.624	B	0.022	NO
12.	Tujunga Avenue &	AM	0.703	C	0.709	C	0.006	NO
	Saticoy Street	PM	0.515	A	0.525	A	0.010	NO

Chapter 7
Traffic Impact Analysis Before Mitigation

The relative impact of the added Project traffic volumes during the peak hours was evaluated based on analysis of both existing and future operating conditions at the study intersections without and with the Project. The previously discussed significance criteria and thresholds[2] summarized in Chapter 1 were then used to determine the significance of a traffic impact caused by the Project on the study intersection, prior to any Project mitigation or trip reduction measures.

EXISTING WITH PROJECT CONDITIONS

The Existing with Project Conditions during the weekday morning and afternoon peak hours are shown in Table 9. Of the 12 signalized study intersections, the Project is expected to result in a significant impact at the intersection of Lankershim Boulevard & Webb Avenue & Strathern Street (Intersection #7) during both the morning and afternoon peak hours in Year 2018 prior to Project mitigation. The incremental increases in V/C ratios at the remaining 11 intersections would create a less than significant impact under Existing with Project Conditions.

FUTURE WITH PROJECT CONDITIONS

The Future with Project Conditions during the weekday morning and afternoon peak hours are shown in Table 10. Of the 12 study intersections, the Project is anticipated to result in a significant impact at the intersection of Lankershim Boulevard & Webb Avenue & Strathern

[2] Based on LADOT's *Transportation Impact Study Guidelines,* a Project is considered to have a significant traffic impact on a signalized intersection if the increase in V/C ratio attributable to the project exceeds the following thresholds depending on final intersection LOS:

- LOS C – $\Delta V/C \geq 0.04$
- LOS D – $\Delta V/C \geq 0.02$
- LOS E or F – $\Delta V/C \geq 0.01$

Street (Intersection #7) under Future with Project Conditions during both the morning and afternoon peak hours, prior to Project mitigation. The incremental increase in the V/C ratios at the remaining 11 intersections would create a less than significant impact during the peak hours by Project traffic under Future with Project Conditions.

Chapter 8
Traffic Mitigation Program

This chapter describes the traffic mitigation measures considered in order to mitigate the significant traffic impacts at study intersections associated with construction of the Project and to improve traffic operations in the Project vicinity. The applicable guidelines, methods, and assumptions mandated by LADOT in *Transportation Impact Study Guidelines* were used in the preparation of this analysis.

The various mitigation measures described in this chapter relate to the significant traffic impacts previously described with respect to both the Existing with Project (Year 2018) and the Future with Project (Year 2023) analyses presented in Chapter 7. As described in that chapter, under the Existing and Future with Project Conditions, before mitigation, the Project is expected to result in significant traffic impacts at the intersection of Lankershim Boulevard & Webb Avenue & Strathern Street (Intersection #7) during both the morning and afternoon peak hours.

MITIGATION MEASURES

The mitigations investigated for the Project include the following major components:

1. Implementation of a TDM program for the Project Site to promote peak period trip reductions
2. Implementation of mobility improvements throughout the Study Area to enhance the transportation environment for transit, pedestrians, bicyclists, and schools
3. Transportation Systems Management (TSM) improvements at key intersections within the Study Area.

These mitigation measures are consistent with City policies and procedures that support improvements that reduce greenhouse gas emissions by reducing the use of single-occupant

vehicle trips, encourage developers to construction transit and pedestrian-friendly projects with safe and walkable sidewalks, and promote other modes of travel

TDM PROGRAM

The TDM program outlined below details a set of strategies proposed for the Project designed to reduce peak hour vehicular traffic to and from the Project Site. It is a comprehensive program of design features, transportation services, education programs, and incentive programs intended to reduce the impact of traffic from residents of the Project Site during the most congested time periods of the day. The Project shall develop and implement a TDM program to promote non-auto travel, reduce the use of single-occupant vehicle trips, etc. The TDM program would be subject to review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

- Educational Programs/On-Site TDM Coordinator
- Transportation Information Center/kiosks
- Bicycle amenities
- Contribution to the City Bicycle Plan Trust Fund for implementation of bicycle improvements in the Project area under the 2010 Bicycle Plan and Mobility Plan

TDM Program Strategies

The following provides further information and description of the TDM program strategies.

Educational Programs/On-Site Coordinator. A key component of a successful TDM program is to make residents at the Project Site aware of the various programs offered. To this end, a TDM coordinator on the building management staff would reach out to residents directly to promote the benefits of TDM.

Transportation Information Center/Kiosk. A Transportation Information Center is a centrally-located commuter information center where project residents can obtain information regarding

commute programs, and individuals can obtain real-time information for planning travel without using an automobile. A Transportation Information Center will provide information about transit schedules, commute planning, rideshare, telecommuting, and bicycle and pedestrian plans.

Project Design Features to Promote Bicycling and Walking. A significant and growing number of people in the City prefer to ride bicycles or walk to their employment given sufficient facilities to make the commute feel safe and convenient. The Project would incorporate features for bicyclists and pedestrians, such as exclusive access points, secured bicycle parking facilities. Additionally, the Project Site would be designed to be a friendly and convenient environment for pedestrians.

Bikeway Improvements. The Project would contribute funding toward the implementation of bicycle improvements within the Study Area under the 2010 Bicycle Plan and Mobility Plan.

Project Trip Reduction from the TDM Program

Trip Generation Handbook, 3rd Edition (Institute of Transportation Engineers, 2017) provides a summary of research of TDM programs. The combined effect of the various strategies implemented as part of the TDM program would result in a reduction in peak hour trip generation by offering services, actions, specific facilities, etc., aimed at encouraging use of alternative transportation modes (e.g., transit, bus, walking, bicycling, carpool, etc.) A TDM trip reduction credit of 5% was applied to the residential component of the Project.

Table 11 summarizes the estimated trip reduction during the peak hours. As shown, the TDM program is expected to result in a reduction of 106 daily trips, including seven morning peak hour trips and eight afternoon peak hour trips. The Project, when fully built and occupied and with implementation of the TDM program, would generate a total of 3,367 daily trips, including 203 morning peak hour trips (74 inbound, 129 outbound) and 287 afternoon peak hour trips (167 inbound, 120 outbound).

The trip generation estimates with peak hour trip reductions from the TDM program were assigned through the study intersections using the trip distribution patterns illustrated in Figures

8A and 8B. The Project-only morning and afternoon peak hour traffic volumes after implementation of the TDM program as part of the Project's mitigation are shown in Figure 13.

MOBILITY IMPROVEMENT PROGRAM

The Project could contribute to the implementation of a mobility improvement program that includes a variety of pedestrian and transit infrastructure solutions to promote non-auto travel. Mobility improvements make it more attractive and convenient for Project residents, employees, and patrons to choose non-auto travel to and from the Project Site.

By upgrading and enhancing the pedestrian and transit infrastructure around the Project and throughout the Study Area, the mobility improvement program effectively facilitates the use of alternative modes and reduces the total number of vehicle trips associated with the Project. The mobility improvement plan for the Project may include the following improvements:

- Installation of continental (high visibility) crosswalks
- Installation of bus stop shelters
- Installation of bus stop benches
- Installation and maintenance of sidewalks

If implemented, the mobility improvement program could reduce traffic and improve V/C throughout the Study Area.

Installation of Continental (High Visibility) Crosswalks

The following four study intersections have been identified as locations where continental (high visibility) crosswalks could be installed:

4. Webb Avenue & Roscoe Boulevard
6. Laurel Canyon Boulevard & Strathern Street
9. Vineland Avenue & Strathern Street
12. Tujunga Avenue & Saticoy Street

Continental (high visibility) crosswalk markings include white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection. Additionally, continental (high visibility) crosswalks include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk.

Installation and Maintenance of Sidewalks

One key corridor has been identified within the Study Area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. As previously detailed, both Strathern Street and Lankershim Boulevard are identified as part of the Vision Zero High Injury Network, which spotlights streets with a high concentration of severe injuries and deaths, with an emphasis on those involving people walking and bicycling. Improvements to this segment of Strathern Street could include widening, paving, and clearly marking sidewalk and curb space.

Installation of Bus Stop Shelters

The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, could be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage. Bus stop shelters provide shade and protection from inclement weather conditions, as well as an enhanced sense of safety and security. Additionally, bus stop shelters may improve visibility of approaching vehicles for riders and/or visibility of riders waiting at the stop for bus drivers. The side panels of bus stop shelters may also contain valuable schedule/route information and/or advertisements to support the financing of the shelters.

Installation of Bus Stop Benches

The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, could be improved with the

installation of a bus stop bench. The bus stop currently only provides transit signage. Bus stop benches provide seating for riders waiting for their buses to arrive. This public amenity is especially critical for elderly and disabled riders who may be deterred from using transit that requires standing for extended periods of time.

TSM IMPROVEMENTS

As part of the mitigation program, the Project would fund TSM improvements within the Study Area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with LADOT, the following TSM improvements would be implemented:

- Upgrade existing traffic signal controller cabinets to Type 351/2/6/7 cabinets
    5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
    7. Lankershim Boulevard & Webb Avenue & Strathern Street
    10. Lankershim Boulevard & Stagg Street
    11. Lankershim Boulevard & Saticoy Street

- Replacement of existing video fibers with a 24-strand signal mode fiber cable
    7. Lankershim Boulevard & Webb Avenue & Strathern Street

- Upgrade existing pedestrian push buttons to accessible pedestrian signals
    5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
    7. Lankershim Boulevard & Webb Avenue & Strathern Street
    10. Lankershim Boulevard & Stagg Street
    11. Lankershim Boulevard & Saticoy Street

Implementation of the combined TSM improvements could improve the V/C throughout the Study Area.

MITIGATION EFFECTIVENESS

The components of the Project's mitigation program described above would result in peak hour trip reductions from the implementation of the TDM program, as well as operational improvements as a result of the mobility improvement program and TSM improvements. The combined implementation of the mobility improvement program and TSM improvements could improve V/C by approximately 1.5% throughout the Study Area. The effectiveness of the proposed transportation mitigation program was analyzed by applying the appropriate trip reductions and operational improvements that comprise the mitigation measures. This results in the Existing with Project with Mitigation and Future with Project with Mitigation Conditions. The intersections were analyzed using the methodology described in Chapter 1.

The Project-only with Mitigation traffic volumes illustrated in Figure 12 were added to the Existing morning and afternoon peak hour traffic volumes shown in Figure 4, resulting in the Existing with Project with Mitigation Conditions traffic volumes, illustrated in Figure 13. The Project-only with Mitigation traffic volumes illustrated in Figure 12 were also added to the Future without Project morning and afternoon peak hour traffic volumes shown in Figure 7, resulting in the Future with Project with Mitigation Conditions traffic volumes, illustrated in Figure 14.

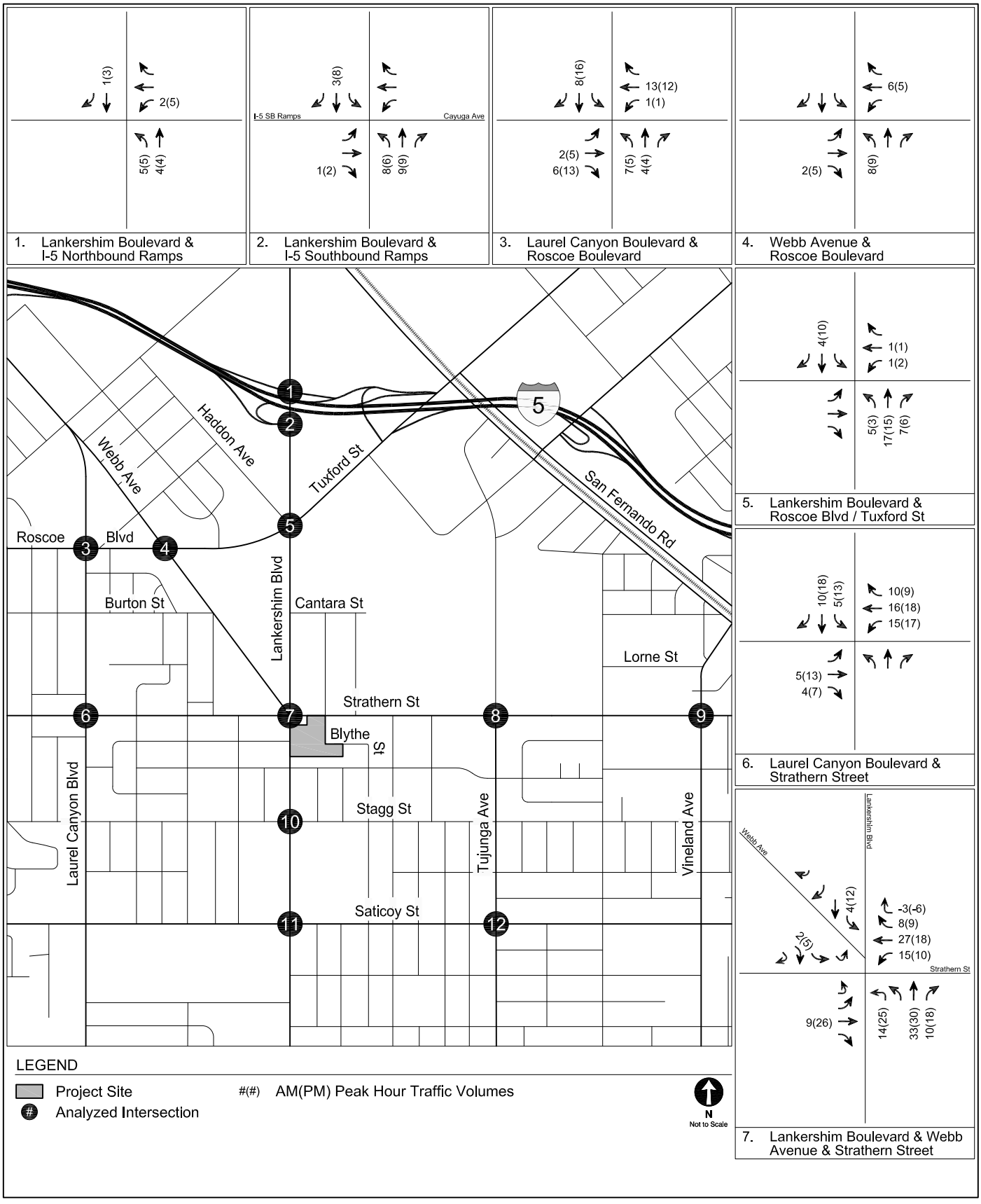
EXISTING WITH PROJECT WITH MITIGATION CONDITIONS

Table 12 summarizes the results of the Existing with Project with Mitigation Conditions during the weekday morning and afternoon peak hours for the 12 study intersections. As shown, implementation of the Project's mitigation program would reduce the incremental impact at the intersection of Lankershim Boulevard & Webb Avenue & Strathern Street (Intersection #7) to less than significant levels.

FUTURE WITH PROJECT WITH MITIGATION CONDITIONS

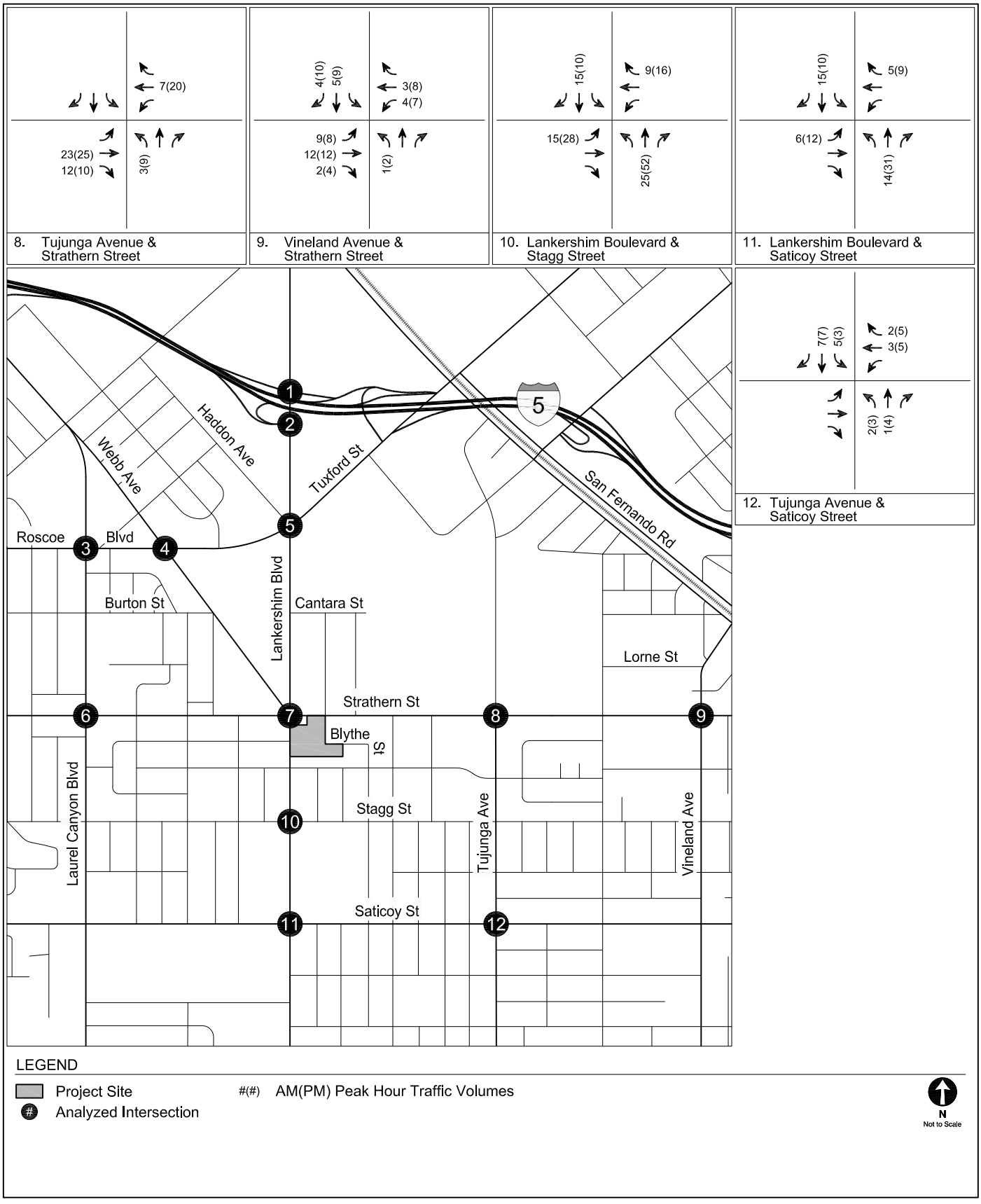
Table 13 summarizes the results of the Future with Project with Mitigation Conditions (Year 2023) during the weekday morning and afternoon peak hours for the 12 study intersections. As shown, implementation of the Project's mitigation program would reduce the incremental impact

at the intersection of Lankershim Boulevard & Webb Avenue & Strathern Street (Intersection #7) to less than significant levels.



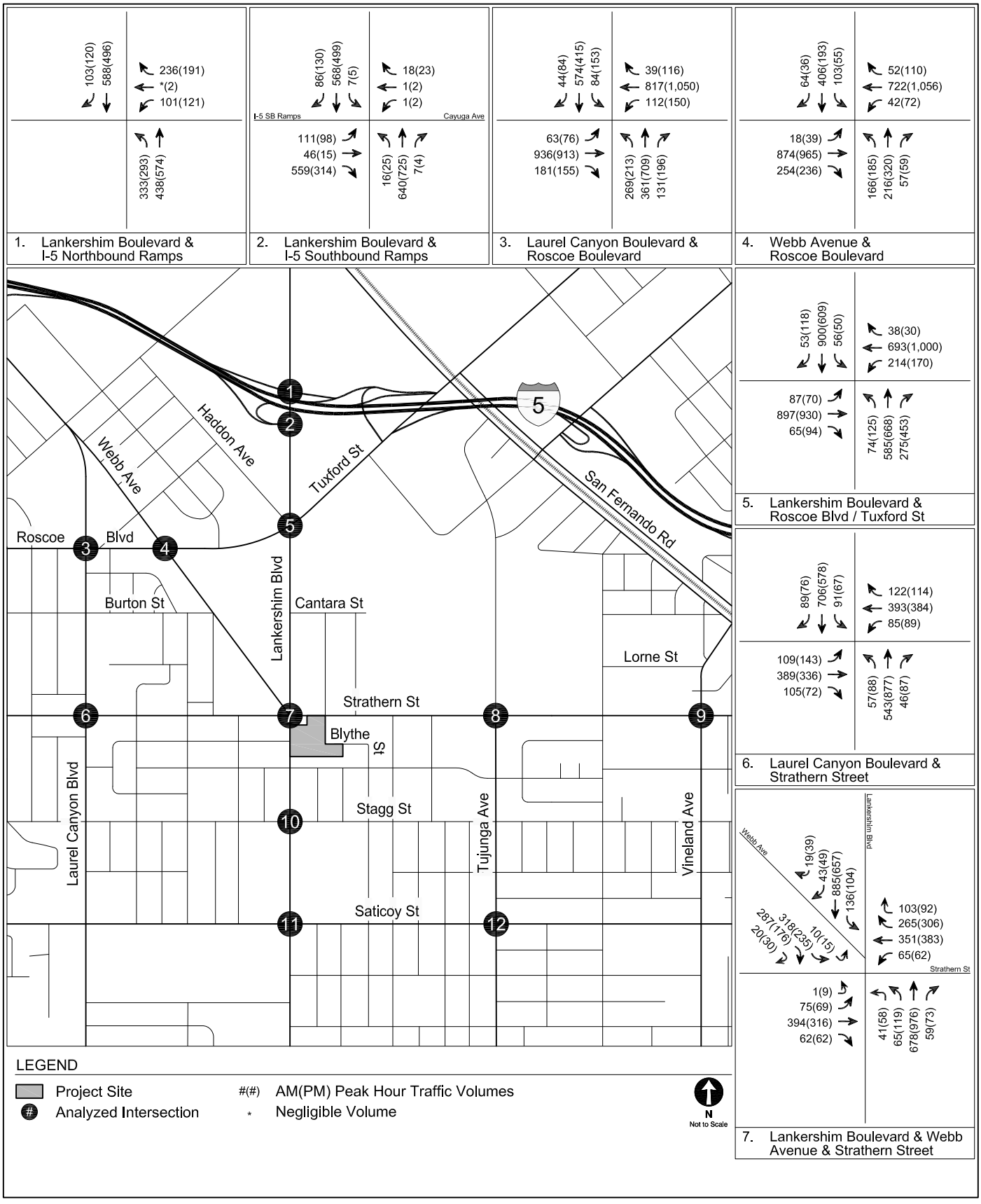
PROJECT-ONLY WITH MITIGATION CONDITIONS
PEAK HOUR TRAFFIC VOLUMES

FIGURE 12



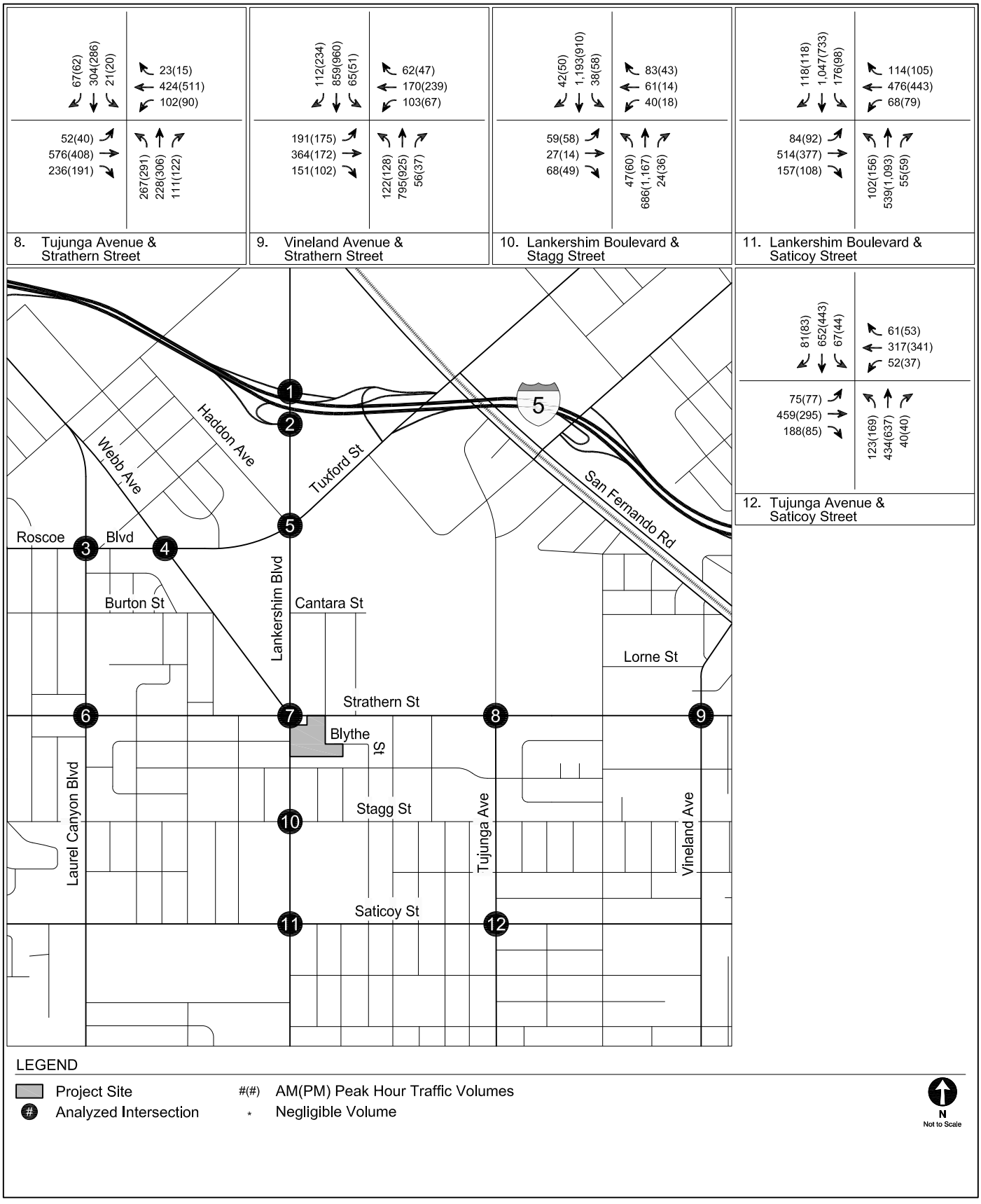
PROJECT-ONLY WITH MITIGATION CONDITIONS
PEAK HOUR TRAFFIC VOLUMES

FIGURE
12 (CONT.)



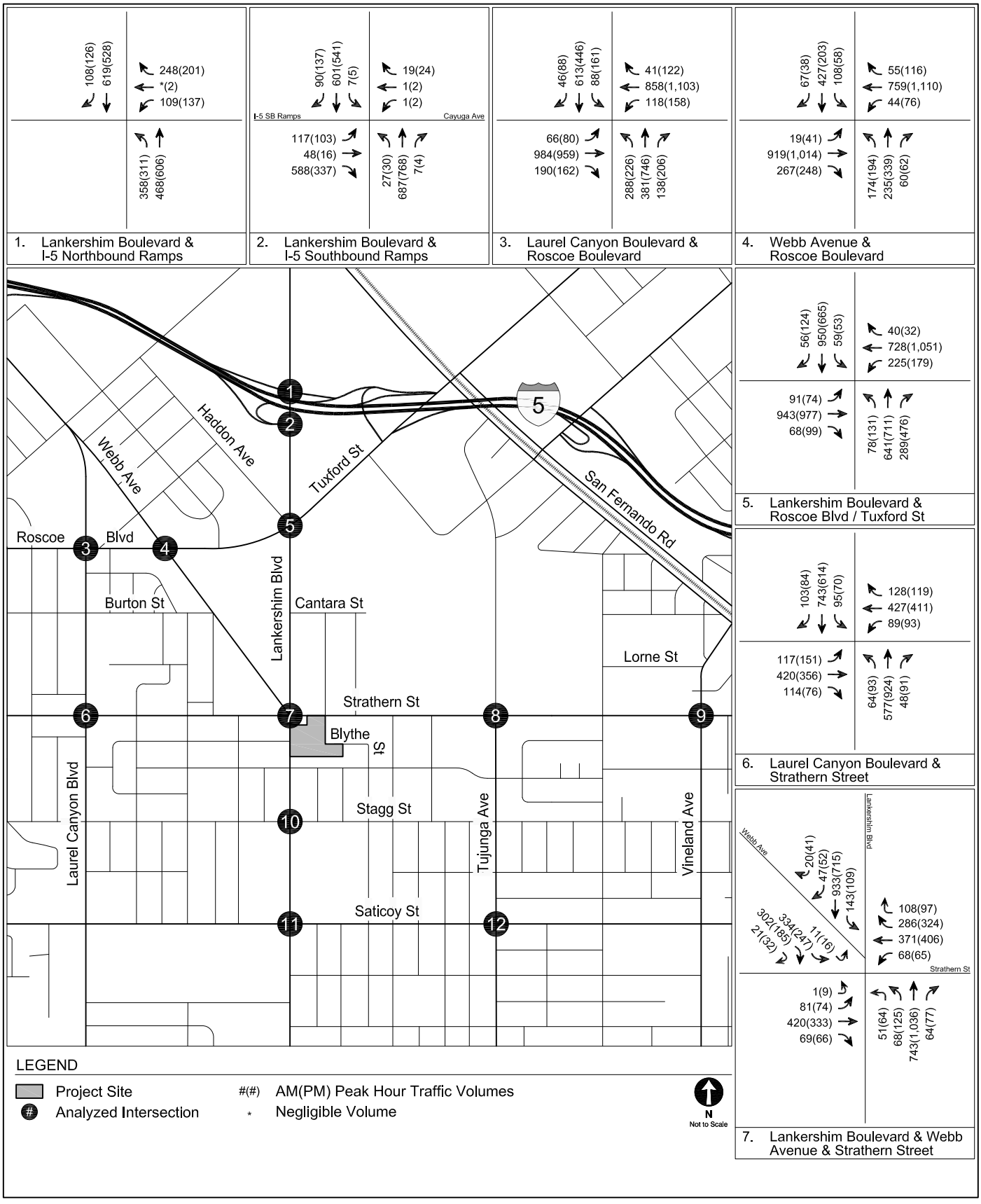
EXISTING WITH PROJECT WITH MITIGATION CONDITIONS (YEAR 2018)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 13



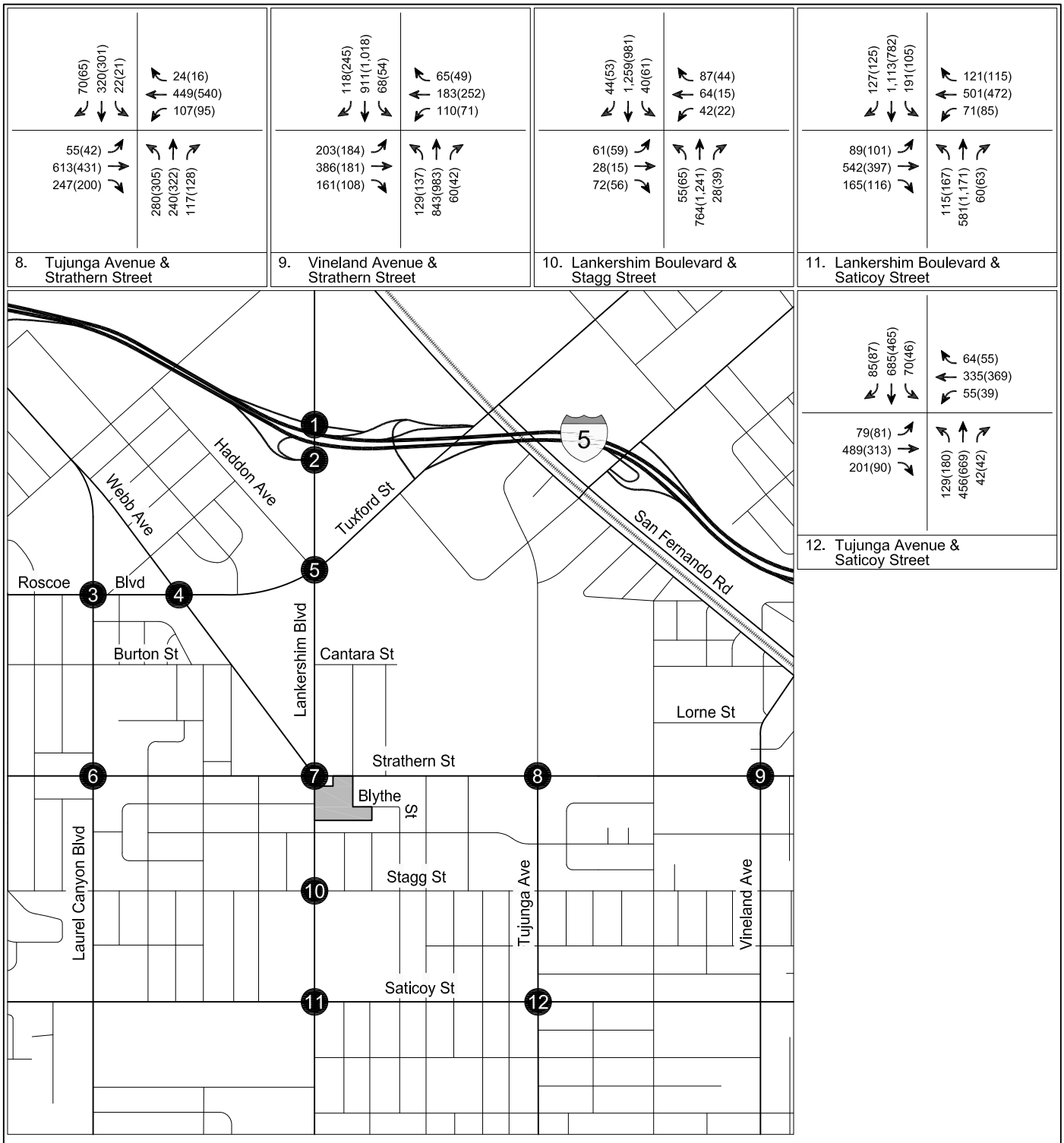
EXISTING WITH PROJECT WITH MITIGATION CONDITIONS (YEAR 2018)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
13 (CONT.)



FUTURE WITH PROJECT WITH MITIGATION CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 14



FUTURE WITH PROJECT WITH MITIGATION CONDITIONS (YEAR 2023)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
14 (CONT.)

TABLE 11
TRIP GENERATION WITH TDM PROGRAM

Land Use	ITE Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Existing Uses to be Removed [a]									
Construction Yard	[b]	180 ksf	40	6	6	12	2	2	4
Proposed Project [a]									
Residential	221	432 du	2,115	37	103	140	104	67	171
Pharmacy with Drive-Through Window	881	14 ksf	784	15	13	28	37	37	74
Restaurant	932	8 ksf	614	30	24	54	33	21	54
Total - Proposed Project			**3,513**	**82**	**140**	**222**	**174**	**125**	**299**
NET NEW PROJECT TRIPS, PRIOR TO TDM PROGRAM			**3,473**	**76**	**134**	**210**	**172**	**123**	**295**
TDM Program Reduction									
Residential	221	5%	(106)	(2)	(5)	(7)	(5)	(3)	(8)
Total - TDM Program Reduction			**(106)**	**(2)**	**(5)**	**(7)**	**(5)**	**(3)**	**(8)**
NET NEW PROJECT TRIPS WITH TDM PROGRAM			**3,367**	**74**	**129**	**203**	**167**	**120**	**287**

Notes:
1,000 square feet = ksf.
[a] See Table 8.
[b] Trips associated with the existing construciton yard were based on empirical counts collected at the Project driveway on Thursday, September 27th, 2018.

TABLE 12
EXISTING WITH PROJECT WITH MITIGATION CONDITIONS (YEAR 2018)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour	Existing Conditions		Existing with Project Conditions				Existing with Project Mitigation Conditions [a]			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact	V/C	LOS	Change in V/C	Significant Impact
1.	Lankershim Boulevard &	AM	0.501	A	0.506	A	0.005	NO	0.491	A	-0.010	NO
	I-5 NB Ramps	PM	0.409	A	0.414	A	0.005	NO	0.399	A	-0.010	NO
2.	Lankershim Boulevard &	AM	0.485	A	0.486	A	0.001	NO	0.471	A	-0.014	NO
	I-5 SB Ramps / Cayuga Avenue	PM	0.345	A	0.348	A	0.003	NO	0.333	A	-0.012	NO
3.	Laurel Canyon Boulevard &	AM	0.717	C	0.726	C	0.009	NO	0.711	C	-0.006	NO
	Roscoe Boulevard	PM	0.707	C	0.711	C	0.004	NO	0.696	B	-0.011	NO
4.	Webb Avenue &	AM	0.460	A	0.465	A	0.005	NO	0.450	A	-0.010	NO
	Roscoe Boulevard	PM	0.459	A	0.466	A	0.007	NO	0.451	A	-0.008	NO
5.	Lankershim Boulevard &	AM	0.757	C	0.763	C	0.006	NO	0.748	C	-0.009	NO
	Roscoe Boulevard / Tuxford Street	PM	0.667	B	0.675	B	0.008	NO	0.660	B	-0.007	NO
6.	Laurel Canyon Boulevard &	AM	0.494	A	0.509	A	0.015	NO	0.493	A	-0.001	NO
	Strathern Street	PM	0.568	A	0.589	A	0.021	NO	0.574	A	0.006	NO
7.	Lankershim Boulevard & Webb Avenue &	AM	0.827	D	0.854	D	0.027	**YES**	0.837	D	0.010	NO
	Strathern Street	PM	0.801	D	0.826	D	0.025	**YES**	0.810	D	0.009	NO
8.	Tujunga Avenue &	AM	0.760	C	0.778	C	0.018	NO	0.762	C	0.002	NO
	Strathern Street	PM	0.684	B	0.704	C	0.020	NO	0.688	B	0.004	NO
9.	Vineland Avenue &	AM	0.566	A	0.579	A	0.013	NO	0.564	A	-0.002	NO
	Strathern Street	PM	0.566	A	0.581	A	0.015	NO	0.566	A	0.000	NO
10.	Lankershim Boulevard &	AM	0.470	A	0.491	A	0.021	NO	0.476	A	0.006	NO
	Stagg Street	PM	0.384	A	0.421	A	0.037	NO	0.406	A	0.022	NO
11.	Lankershim Boulevard &	AM	0.582	A	0.587	A	0.005	NO	0.572	A	-0.010	NO
	Saticoy Street	PM	0.553	A	0.574	A	0.021	NO	0.559	A	0.006	NO
12.	Tujunga Avenue &	AM	0.661	B	0.667	B	0.006	NO	0.652	B	-0.009	NO
	Saticoy Street	PM	0.481	A	0.491	A	0.010	NO	0.476	A	-0.005	NO

Notes

[a] Project mitigation includes a 5% peak hour trip reduction to the residential uses with implementation of a TDM Program and a 1.5% v/c ratio improvement with implentation of mobility improvements throughout the Study Area and TSM improvements along the Lankershim Boulevard corridor.

TABLE 13
FUTURE WITH PROJECT WITH MITIGATION CONDITIONS (YEAR 2023)
SIGNIFICANT IMPACT ANALYSIS

No.	Intersection	Peak Hour	Future without Project Conditions		Future with Project Conditions				Future with Project Mitigation Conditions [a]			
			V/C	LOS	V/C	LOS	Change in V/C	Significant Impact	V/C	LOS	Change in V/C	Significant Impact
1.	Lankershim Boulevard &	AM	0.538	A	0.543	A	0.005	NO	0.527	A	-0.011	NO
	I-5 NB Ramps	PM	0.440	A	0.445	A	0.005	NO	0.429	A	-0.011	NO
2.	Lankershim Boulevard &	AM	0.517	A	0.518	A	0.001	NO	0.502	A	-0.015	NO
	I-5 SB Ramps / Cayuga Avenue	PM	0.373	A	0.375	A	0.002	NO	0.361	A	-0.012	NO
3.	Laurel Canyon Boulevard &	AM	0.767	C	0.776	C	0.009	NO	0.760	C	-0.007	NO
	Roscoe Boulevard	PM	0.748	C	0.752	C	0.004	NO	0.737	C	-0.011	NO
4.	Webb Avenue &	AM	0.489	A	0.495	A	0.006	NO	0.479	A	-0.010	NO
	Roscoe Boulevard	PM	0.487	A	0.495	A	0.008	NO	0.479	A	-0.008	NO
5.	Lankershim Boulevard &	AM	0.803	D	0.809	D	0.006	NO	0.793	C	-0.010	NO
	Roscoe Boulevard / Tuxford Street	PM	0.716	C	0.723	C	0.007	NO	0.708	C	-0.008	NO
6.	Laurel Canyon Boulevard &	AM	0.539	A	0.554	A	0.015	NO	0.537	A	-0.002	NO
	Strathern Street	PM	0.609	B	0.630	B	0.021	NO	0.613	B	0.004	NO
7.	Lankershim Boulevard & Webb Avenue &	AM	0.889	D	0.913	E	0.024	**YES**	0.897	D	0.008	NO
	Strathern Street	PM	0.854	D	0.880	D	0.026	**YES**	0.863	D	0.009	NO
8.	Tujunga Avenue &	AM	0.809	D	0.827	D	0.018	NO	0.811	D	0.002	NO
	Strathern Street	PM	0.727	C	0.747	C	0.020	NO	0.730	C	0.003	NO
9.	Vineland Avenue &	AM	0.607	B	0.621	B	0.014	NO	0.604	B	-0.003	NO
	Strathern Street	PM	0.606	B	0.621	B	0.015	NO	0.605	B	-0.001	NO
10.	Lankershim Boulevard &	AM	0.505	A	0.526	A	0.021	NO	0.508	A	0.003	NO
	Stagg Street	PM	0.419	A	0.456	A	0.037	NO	0.438	A	0.019	NO
11.	Lankershim Boulevard &	AM	0.627	B	0.631	B	0.004	NO	0.616	B	-0.011	NO
	Saticoy Street	PM	0.602	B	0.624	B	0.022	NO	0.607	B	0.005	NO
12.	Tujunga Avenue &	AM	0.703	C	0.709	C	0.006	NO	0.694	B	-0.009	NO
	Saticoy Street	PM	0.515	A	0.525	A	0.010	NO	0.509	A	-0.006	NO

Notes

[a] Project mitigation includes a 5% peak hour trip reduction to the residential uses with implementation of a TDM Program and a 1.5% v/c ratio improvement with implentation of mobility improvements throughout the Study Area and TSM improvements along the Lankershim Boulevard corridor.

Chapter 9
Congestion Management Program Analysis

This chapter presents an analysis of the regional transportation facilities in the vicinity of the Project Site, in accordance with the procedures outlined in the CMP.

TRAFFIC IMPACT ANALYSIS (TIA) GUIDELINES

The CMP requires that, when environmental review documents are prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities. Specifically, the CMP requires that TIAs be performed on three types of facilities:

- Arterial Intersections
- Mainline Freeway Segments
- The Public Transit System

The CMP identifies specific arterial and freeway mainline locations for analysis.

Arterial Monitoring Intersection TIA Guidelines

The CMP requires that a TIA be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring intersection. The CMP analysis uses the same CMA methodology as described and applied in the preceding chapters for intersections in the City to determine intersection V/C ratio and LOS. A significant impact requiring mitigation occurs if project traffic causes an incremental increase in arterial intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F (V/C > 1.00) after the addition of project traffic.

Mainline Freeway Monitoring Location TIA Guidelines

The CMP requires that a TIA be performed for all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday morning or afternoon peak hours. A detailed analysis is not required if the project adds fewer than 150 trips to a mainline freeway monitoring location (in either direction) during either the weekday morning or afternoon peak hour. The CMP analysis uses a demand-to-capacity (D/C) ratio to determine facility LOS based on capacity identified in Appendix A of the CMP. Similar to arterial monitoring intersections, a significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection D/C ratio of 0.02 or greater to a facility projected to operate at LOS F (D/C > 1.00) after the addition of project traffic.

Public Transit Impact Review Guidelines

The CMP requires that a public transit system analysis be performed to determine whether a project would increase transit ridership beyond the current capacity of the transit system.

ARTERIAL MONITORING STATION ANALYSIS

The CMP identifies one arterial monitoring intersection at Victory Boulevard & Woodman Avenue approximately 3.25 miles southwest of the Study Area. Based on the distribution of Project trips illustrated in Figure 9, the Project is projected to add a total of eight peak hour trips during the morning peak hour and eight peak hour trips during the afternoon peak hour at this location. The Project would not add more than 50 peak hour trips to the arterial monitoring intersection. Therefore, no further analysis is required, and impacts are considered to be less than significant.

FREEWAY SEGMENT ANALYSIS

The CMP identifies one mainline freeway monitoring location within the vicinity of the Project Site: SR 170 at Sherman Way, approximately 1.30 miles southwest of the Project Site. No

freeway monitoring locations were identified along I-5 in the vicinity of the Study Area. Based on the distribution of Project trips illustrated in Figure 9, the Project is projected to add a total of one northbound trip and three southbound peak hour trips during the morning peak hour and two northbound trips and two southbound trips during the afternoon peak hour at this location. Since the Project would not add 150 trips in either direction during either peak hour, no additional freeway analysis is required under the CMP criteria for existing or future conditions and impacts are considered to be less than significant.

REGIONAL PUBLIC TRANSIT IMPACT ANALYSIS

Section D.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an average vehicle occupancy (AVO) factor of 1.4 in order to estimate the number of person trips to and from the Project and to provide guidance regarding the percentage of Project person trips that may use public transit to travel to and from the Project Site depending on the mix of uses and proximity to transit. Based on the assumption in the trip generation estimates shown in Table 8, a 10% transit/walk-in adjustment was applied to account for the use of non-auto travel modes (e.g., bus, bicycle, walk, etc.). For the purposes of the analysis, all transit/walk-in trip estimates from Table 8 were conservatively assumed to travel via public transit.

As shown in Table 8, transit usage accounts for approximately 29 morning peak hour trips and 40 afternoon peak hour trips. Assuming an AVO of 1.4, the Project would generate approximately 41 net new transit trips during the morning peak hour and 56 net new transit trips during the afternoon peak hour.

As detailed in Chapter 2, the Study Area is served by numerous established transit routes. The residual capacity of the analyzed transit lines within the Study Area during the morning and afternoon peak hours is approximately 530 and 569 trips, respectively. The Project's morning and afternoon peak hour person trips by transit are projected at 41 and 56 trips, respectively, or approximately 10% of the available capacity during morning and afternoon peak hours. Although the Project (and other related projects) will cumulatively add transit ridership, the total transit capacity of the numerous transit lines can accommodate the Project's transit trips.

Therefore, the Project would not exceed regional transit capacity and transit impacts would be less than significant. Furthermore, it is assumed that public transit providers would add additional service when required in order to accommodate cumulative demand in the region. Therefore, cumulative impacts on public transit would be less than significant.

Furthermore, Los Angeles County voters approved Measure R, a half-cent sales tax increase for transportation, which has allowed Metro to develop projects to improve the existing transportation system. *2009 Long Range Transportation Plan* (Metro, Adopted 2009) (2009 LRTP), which outlined a range of transit and highway projects throughout Los Angeles County that were aimed to improve mobility and address future growth, is currently in the process of an update to address transportation issues and projects identified by local jurisdictions, Councils of Governments, and transportation agencies. *2014 Short Range Transportation Plan* (Metro, Adopted 2014) identifies projects and programs that will be implemented in accordance with the Project priorities and funding schedules of the 2009 LRTP. It is recognized that with these plans in place, Metro will continue to maintain and expand regional transit service in order to accommodate cumulative demand in the region. Although the Project (and other related projects) will cumulatively add transit ridership, Metro will continue to maintain and expand regional transit service to accommodate cumulative demand in the region; therefore, cumulative impacts on public transit are considered to be less than significant.

Chapter 10
Project Site Access and Internal Circulation

This chapter summarizes site access and internal circulation of the Project Site.

VEHICULAR ACCESS AND CIRCULATION

Access to the Project Site subterranean parking garage would be provided via one full-access driveway on Strathern Street and one limited access driveway accommodating right-turn ingress and right-turn egress only on Lankershim Boulevard. The driveway on Strathern Street would provide access to the residential uses, while the driveway on Lankershim Boulevard would provide access to both the residential and commercial uses on site. In addition, the pharmacy drive-through would be accessed via a separate driveway along Lankershim Boulevard. The driveways would be designed to LADOT standards under the review of City staff. The Project driveways would be designed to minimize queuing on the adjacent street system that would block through traffic. In addition, the Project driveways would be located along arterial streets (Lankershim Boulevard is a designated Boulevard II and Strathern Avenue is a designated Avenue II). Adjacent residential local streets would not be utilized by Project traffic to access the Project Site. Therefore, the Project is not anticipated to result in any residential street segment impacts.

PEDESTRIAN ACCESS AND CIRCULATION

Pedestrian access would be provided on Strathern Street along the northern boundary of the Project Site and on Lankershim Boulevard along the western boundary of the Project Site. It would be completely separated from any vehicular access point and, therefore, no pedestrian impacts would occur.

BICYCLE ACCESS AND CIRCULATION

Residents and visitors arriving by bicycle would have the same access opportunities as pedestrian visitors. In order to facilitate bicycle use, bicycle parking spaces would be provided on-site, consistent with the Bicycle Parking Ordinance, Los Angeles Municipal Code (LAMC) Section 12.21.A16(a)(2). Dedicated bicycle lanes currently exist on Lankershim Boulevard and dedicated bicycle lanes are proposed on Strathern Street under the Mobility Plan 2035.

Chapter 11
Parking

This chapter provides an analysis of the vehicular and bicycle parking requirements for the Project set forth in the LAMC in relation to the Project's proposed parking supply.

PARKING SUPPLY

The Project proposes to provide a total of 541 vehicular parking spaces on-site, including 432 spaces for residents, and 109 spaces for commercial uses, within one subterranean and one at-grade parking level. Additionally, the Project would provide 224 bicycle parking spaces, including 194 long-term and 30 short-term spaces.

VEHICULAR PARKING CODE REQUIREMENTS

The Project qualifies for a density bonus; therefore, per Section 65915(k) of *California Government Code* (California Office of Legislative Counsel for the Legislature, effective January 2017), the residential parking requirement was calculated based on a reduction to the vehicular parking rate that would otherwise be required. The commercial parking requirements for the Project are based on rates provided in LAMC Section 12.21.A4(x)(3) for Projects within an Enterprise Zone. The parking rates utilized are summarized in Table 14. Additionally, per LAMC Section 12.21.A4, up to 10% of required residential parking and 20% of required non-residential parking may be replaced with bicycle parking at a ratio of one vehicular parking space for every four required or non-required bicycle parking spaces provided.

As shown in Table 14, the Project is required to provide a total of 476 vehicular parking spaces, including 432 residential parking spaces, 28 pharmacy parking spaces, and 16 restaurant parking spaces. With application of the maximum allowable bicycle reductions, the Project vehicular

parking requirement would be 424 spaces, which would be satisfied on-site by the 541 spaces proposed by the Project.

BICYCLE PARKING CODE REQUIREMENTS

Table 15 summarizes the bicycle parking requirements for the Project based on rates provided in LAMC Section 12.21.A16. There are distinct requirements for the number of long-term spaces and short-term spaces. Long-term spaces include secure and enclosed bicycle storage, while short-term spaces include easily accessible bicycle racks that support the bicycle at two points. As detailed in Table 15, the Project is required to provide a total of 224 bicycle parking spaces (194 long-term and 30 short-term spaces), including 202 residential parking spaces (183 long-term, 19 short-term), 14 pharmacy parking spaces (seven long-term, seven short-term), and eight restaurant parking spaces (four long-term, four short-term). These bicycle parking requirements would be satisfied within the proposed on-site bicycle parking supply.

TABLE 14
CODE VEHICLE PARKING REQUIREMENT

Land Use	Size	Code Requirement	Parking Required
Residential [a]	432 units	1.0 spaces / 1 unit	432 spaces
Pharmacy [b]	14,000 sf	2.0 spaces / 1,000 sf	28 spaces
Restaurant [b]	8,000 sf	2.0 spaces / 1,000 sf	16 spaces
		Total Code Required Parking	**476 spaces**
Bicycle Parking Reduction			
Bicycle Parking Reduction (Residential) [c]		10%	*(43)*
Bicycle Parking Reduction (Non-Residential) [d]		20%	*(9)*
		Net Code Parking Requirement	**424 spaces**

Notes
sf: square feet
[a] The Project qualifies for a density bonus, therefore, per Section 65915(K) of the California Government Code, the residential parking requirement is based on a reduction in the ratio of parking parking spaces that would otherwise be required.
[b] The commercial parking requirements are based on rates provided in Section 12.21.A(X)(3) of the LAMC for Projects within an Enterprise Zone.
[c] Per Section 12.21.A4 of the LAMC, residential buildings may replace up to 10 percent of the required automobile parking with bicycle parking.
[d] Per Section 12.21.A4 of the LAMC, non-residential buildings may replace up to 20 percent of the required automobile parking with bicycle parking.

TABLE 15
CODE BICYCLE PARKING REQUIREMENT

Type of Room or Land Use	Units or Size	Long-Term Spaces	Short-Term Spaces
Los Angeles Municipal Code Requirement [a]			
Residential (Units 1-25)		1 space per unit	1 space per 10 units
Residential (Units 26-100)		1 space per 1.5 units	1 space per 15 units
Residential (Units 101-200)		1 space per 2 units	1 space per 20 units
Residential (Units 200+)		1 space per 4 units	1 space per 40 units
Retail		1 space per 2,000 sf	1 space per 2,000 sf
Restaurant		1 space per 2,000 sf	1 space per 2,000 sf
Project Parking Requirement			
Residential	432 units	183	19
Retail	14,000 sf	7	7
Restaurant	8,000 sf	4	4
TOTAL CODE REQUIREMENT		**194**	**30**

Notes:
sf = square feet
[a] Bicycle parking requirements per LAMC Section 12.21.A16.

Chapter 12
Construction Impact Analysis

This chapter summarizes the construction schedule and construction impact analysis for the Project. The construction impact analysis relates to the temporary impacts that may result from the construction activities of the Project, which may include safety, operational, or capacity impacts, and was performed in accordance with *L.A. CEQA Thresholds Guide: Your Resource for Preparing CEQA Analyses in Los Angeles* (City of Los Angeles, 2006).

TYPES OF CONSTRUCTION IMPACTS

L.A. CEQA Thresholds Guide identifies four types of in-street construction impacts. Each of the four types of impacts refers to a particular population that could be inconvenienced by construction activities. The four types of potential impacts and related populations are:

1. Temporary traffic impacts – potential impacts on vehicular travelers on roadways
2. Temporary loss of access – potential impacts on visitors entering and leaving sites
3. Temporary loss of bus stops or rerouting of bus lines – potential impacts on bus travelers
4. Temporary loss of on-street parking – potential impacts on persons parking

The factors used to determine the significance of a project's impacts involve the likelihood and extent to which an impact might occur, the potential inconvenience caused to a population, and consideration for public safety. Traffic impacts from construction activities could occur as a result of the following types of activities:

- Increases in truck traffic associated with export or import of fill materials and delivery of construction materials via trucks
- Increases in automobile traffic associated with construction workers traveling to and from the Project Site

- Reductions in existing street capacity or on-street parking from temporary lane closures necessary for the construction of roadway improvements, utility relocation, and drainage facilities
- Blocking existing vehicle or pedestrian access to other parcels fronting streets

The impact of construction traffic (including haul trucks) would be a lessening of the capacities of access streets and haul routes due to slower movements and larger turning radii of trucks.

PROPOSED CONSTRUCTION SCHEDULE

The Project is anticipated to be constructed over a period of approximately 36 months, with completion anticipated in Year 2023. Peak haul truck activity occurs during excavation and grading, and peak worker activity occurs during building construction. These two phases of construction were studied in greater detail. Typical construction activity would occur between 7:00 AM and 3:00 PM.

EXCAVATION AND GRADING PHASE

The peak period of truck activity during construction would occur during excavation and grading of the Project Site.

Haul trucks would travel on approved truck routes designated within the City. Given the Project Site's proximity to SR 170 and I-5, haul truck traffic would take the most direct route to the appropriate freeway ramps. The haul route will be reviewed and approved by the City.

Based on projections compiled for the Project, approximately 89,000 cubic yards (CY) of material would be excavated and removed from the Project Site over a 40-workday period. Based on estimates from the Applicant, this period would require up to 139 haul trucks per day. It is also anticipated that up to 55 vendor trucks would arrive to the Project Site per day during the excavation and grading phase. Thus, up to 388 daily truck trips (194 inbound, 194 outbound) are forecast to occur during the excavation and grading period, or approximately 66 trips per hour (33 inbound, 33 outbound) if occurring uniformly over a typical six-hour haul

period within the typical construction activity hours of 7:00 AM and 3:00 PM. *Transportation Research Circular No. 212* defines passenger car equivalency (PCE) for a vehicle as the number of through moving passenger cars to which it is equivalent based on the vehicle's headway and delay-creating effects. Table 8 of *Transportation Research Circular No. 212* and Exhibit 12-25 of *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016) suggest a PCE of 2.0 for trucks. Assuming a PCE factor of 2.0, the 388 truck trips would be equivalent to 776 daily PCE trips. The 66 hourly truck trips would be equivalent to 132 PCE trips (66 inbound, 66 outbound) per hour.

Assuming minimal carpooling among those workers, it is also anticipated that approximately 14 construction workers vehicles would be on-site per day during the excavation and grading phase. Therefore, the 14 construction workers vehicles would result in a total of 28 construction worker vehicle trips that would arrive and depart from the Project Site each day.

With the implementation of the Construction Management Plan, which is described in more detail later in this chapter, it is anticipated that haul truck activity to and from the Project Site would occur outside of the morning and afternoon peak hours where feasible. In addition, as discussed in more detail in the following section, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the excavation and grading phase of construction.

BUILDING CONSTRUCTION PHASE

The traffic impacts associated with construction workers depends on the number of construction workers employed during various phases of construction, as well as the travel mode and travel time of the workers. In general, the hours of construction typically require workers to be on-site before the weekday morning commuter peak period and allow them to leave before the afternoon commuter peak period (i.e., arrive at the site prior to 7:00 AM and depart before 3:00 PM). Therefore, most, if not all, construction worker trips would occur outside of the typical weekday commuter peak periods.

According to construction projections prepared for the Project, approximately 85 construction worker vehicles would be on-site per day during the building construction phase. Therefore, the

estimated number of daily trips associated with the construction workers is approximately 170 (85 inbound and 85 outbound trips), but nearly all of those trips would occur outside of the peak hours, as described above.

As such, the building construction phase is not expected to result in a significant traffic impact at any of the study intersections.

During construction, adequate parking for construction workers would be secured on-site. Workers will be restricted from parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site as part of the Construction Management Plan.

POTENTIAL IMPACTS ON ACCESS, TRANSIT, AND PARKING

Construction activities are expected to be primarily contained within the Project Site boundaries. Encroachments into the public right-of-way (e.g., sidewalk) adjacent to the Project Site along Strathern Avenue are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained in each direction on Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded.

No bus stops are located adjacent to the Project Site. Therefore, no bus stop relocation or bus rerouting is required, and no temporary impacts to transit are expected. Project construction activities are not anticipated to result in any on-street parking removals along Lankershim Boulevard or Strathern Street.

Project construction is not expected to create hazards for drivers, bicyclists, or pedestrians as long as commonly practiced safety procedures for construction are followed. Such procedures and other measures (e.g., to address temporary traffic control, lane closures, sidewalk closures, etc.) have been incorporated into the Construction Management Plan. The construction-related impacts associated with access, transit, and parking are anticipated to be less than significant, and the implementation of the Construction Management Plan described below would further reduce those impacts.

CONSTRUCTION MANAGEMENT PLAN

A detailed Construction Management Plan would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

The Construction Management Plan shall be based on the nature and timing of the specific construction activities and other projects in the vicinity of the Project Site, and may include, but not be limited to, the following elements, as appropriate:

- Prohibition on construction-related vehicles/equipment parking on surrounding public streets.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
- Installation of appropriate traffic signs around the Project Site to ensure pedestrian, bicycle, and vehicle safety.
- No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route.
- Spacing of trucks so as to discourage a convoy effect.
- Installation of truck crossing signs within 300 feet of the exit of the Project Site in each direction.
- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind.
- Securing of loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Cleaning of trucks and loads at the export site to prevent blowing dirt and spilling of loose earth.
- Maintenance of a log documenting the dates of hauling and the number of trips (i.e., trucks) per day available on the job site at all times.

- Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

Chapter 13
Summary and Conclusions

This transportation study was undertaken to analyze the potential traffic impacts of the 7940 Lankershim Boulevard Mixed-Use Project on the local street system. The following summarizes the results of this analysis:

- The study conducted detailed traffic impact analyses at a total of 12 study intersections. All 12 study intersections operate at LOS D or better during both the morning and afternoon peak hours under the Existing Conditions.

- All 12 study intersections are projected to operate at LOS D or better during both the morning and afternoon peak hours under the Future without Project Conditions.

- After application of appropriate trip reduction credits, the Project is estimated to generate a total 3,473 daily weekday trips, including 210 morning peak hour trips and 295afternoon peak hour trips.

- Existing with Project conditions in the Study Area were analyzed for the existing year of 2018. Based on LADOT significance criteria, the Project is anticipated to result in a significant impact at one of the 12 study intersections under Existing with Project Conditions. Therefore, further mitigation measures are required.

- Future traffic conditions in the Study Area were forecast for the Project buildout year of 2023. Based on LADOT significance criteria, the Project is anticipated to result in a significant impact at one of the 12 study intersections under Future with Project Conditions. Therefore, further mitigation measures are required.

- The mitigation program includes the implementation of a TDM program, mobility improvement program, and TSM improvements. With implementation of the mitigation program, the impact at Lankershim Boulevard & Webb Avenue & Strathern Street (Intersection #7) would be reduced to less than significant levels under Existing with Project and Future with Project Conditions.

- Analysis of potential impacts on the regional transportation system conducted in accordance with CMP guidelines determined that the Project would not have a significant impact on the regional freeway or arterial system or the regional transit system.

- The Project would provide adequate access and internal circulation to accommodate vehicular traffic without impeding through traffic movements on City streets.

- The Project will incorporate pedestrian and bicycle-friendly designs, such as bicycle parking.

- The Project is anticipated to satisfy LAMC requirements for both vehicular and bicycle parking.

- All construction activities would occur outside of the commuter morning and afternoon peak hours and will not result in significant traffic impacts. A Construction Management Plan would be prepared to ensure that construction impacts would be less than significant.

References

2009 Long Range Transportation Plan, Metro, Adopted 2009.

2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element, Los Angeles Department of City Planning, adopted March 1, 2011.

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California Transportation Plan 2040, California Department of Transportation, Adopted June 2016.

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Los Angeles Municipal Code, City of Los Angeles.

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State of California Senate Bill 743, Steinberg, 2013.

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Transportation Impact Study Guidelines, Los Angeles Department of Transportation, December 2016.

Transportation Research Circular No. 212, Interim Materials on Highway Capacity, Transportation Research Board, 1980.

Trip Generation, 10th Edition, Institute of Transportation Engineers, 2017.

Trip Generation Handbook, 3nd Edition, Institute of Transportation Engineers, 2017.

Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025, City of Los Angeles, August 2015.

Appendix A

Memorandum of Understanding

LADOT

Transportation Impact Study Memorandum of Understanding (MOU)

This MOU acknowledges that the Transportation Impact Study for the following Project will be prepared in accordance with the latest version of LADOT's Transportation Impact Study Guidelines:

I. PROJECT INFORMATION

Project Name: 7940 Lankershim Boulevard Mixed-Use Project

Project Address: 7940 Lankershim Boulevard, Los Angeles, CA 91605

Project Description: The Project is a seven-story mixed-use development consisting of 432 apartment units, a 14 ksf pharmacy/drugstore with drive-through, and 8 ksf of restaurant use. The Project would replace the existing construction yard currently occupying the site. See Figure 1.

LADOT Project Case Number: SFV-2018-47832 Project Site Plan attached? *(Required)* ■ Yes ☐ No

II. TRIP GENERATION

Geographic Distribution: N 20.00 % S 35.00 % E 20.00 % W 25.00 %

Illustration of Project trip distribution percentages at Study intersections attached? *(Required)* ■ Yes ☐ No

Trip Generation Adjustments *(Exact amount of credit subject to approval by LADOT)*

	Yes	No
Transit Usage	■	☐
Transportation Demand Management	☐	■
Existing Active Land Use	■	☐
Previous Land Use	☐	■
Internal Trip	■	☐
Pass-By Trip	■	☐

Source of Trip Generation Rate(s)? ☐ ITE 9th Edition ■ Other: ITE 10th Edition

Trip generation table including a description of the proposed land uses, ITE rates, estimated morning and afternoon peak hour volumes (ins/outs/totals), proposed trip credits, etc. attached? *(Required)* ■ Yes ☐ No

	IN	OUT	TOTAL
AM Trips	76	134	210
PM Trips	172	123	295

III. STUDY AREA AND ASSUMPTIONS

Project Buildout Year: 2023 Ambient or CMP Growth Rate: 1 % Per Yr.

Related Projects List, researched by the consultant and approved by LADOT, attached? *(Required)* ■ Yes ☐ No

Subject to Freeway Impact Analysis, in addition to CMP Analysis? *(Freeway analysis screening filter must be included in this MOU; selecting "yes" implies that at least one criteria was satisfied)* ☐ Yes ■ No

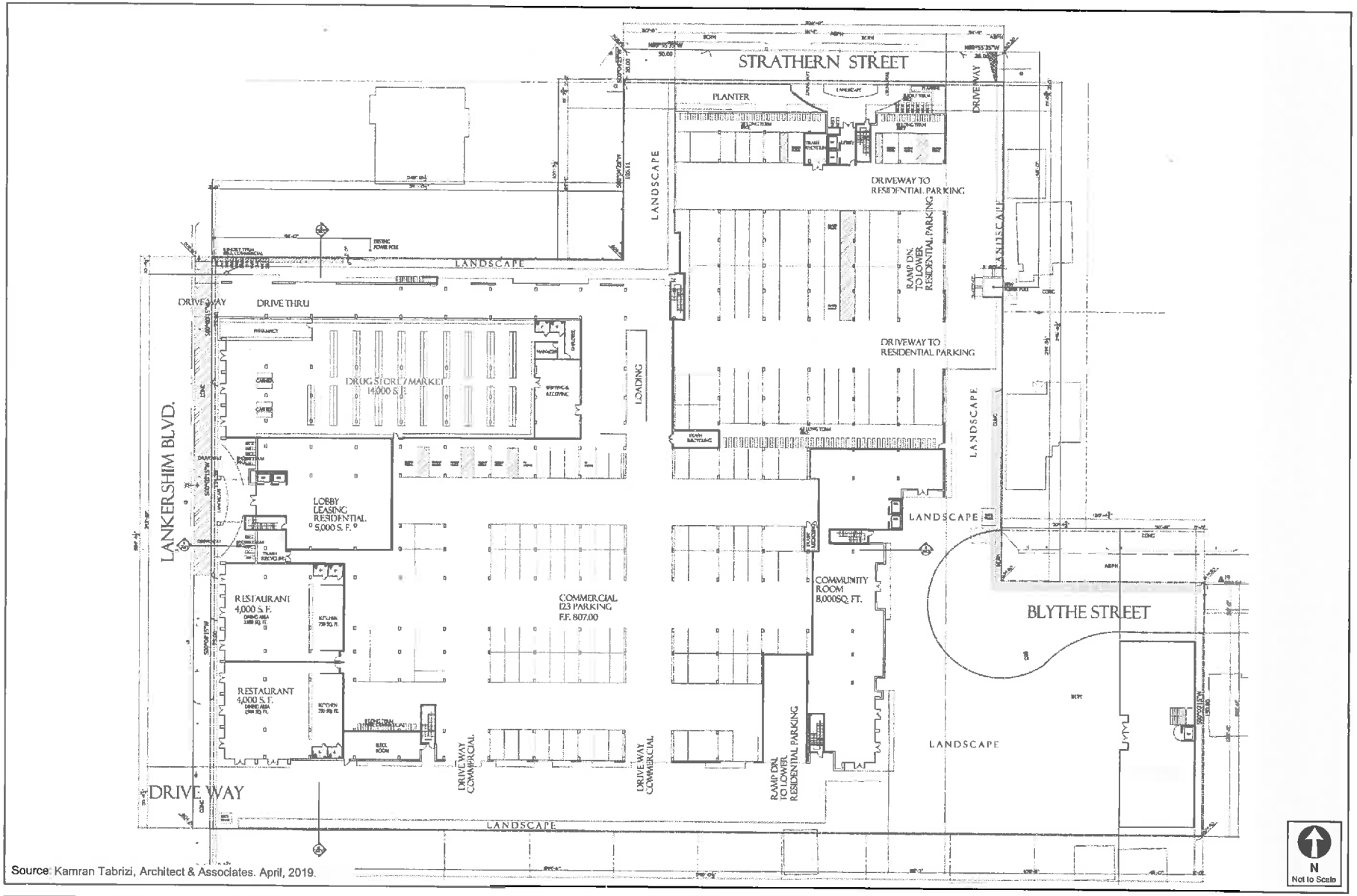
Map of Study Intersections attached? *(May be subject to LADOT revision after initial impact analysis)* ■ Yes ☐ No

Is this Project located on a street within the High Injury Network? ■ Yes ☐ No

IV. CONTACT INFORMATION

	CONSULTANT	DEVELOPER
Name:	Gibson Transportation Consulting, Inc.	DLA Piper LLP
Address:	555 W. 5th Street, Suite 3375, Los Angeles, CA 90013	550 S. Hope Street, Suite 2400, Los Angeles, CA 90071
Phone Number:	(213) 683-0088	(213) 694-3108
E-Mail:	ewong@gibsontrans.com	andrew.brady@dlapiper.com

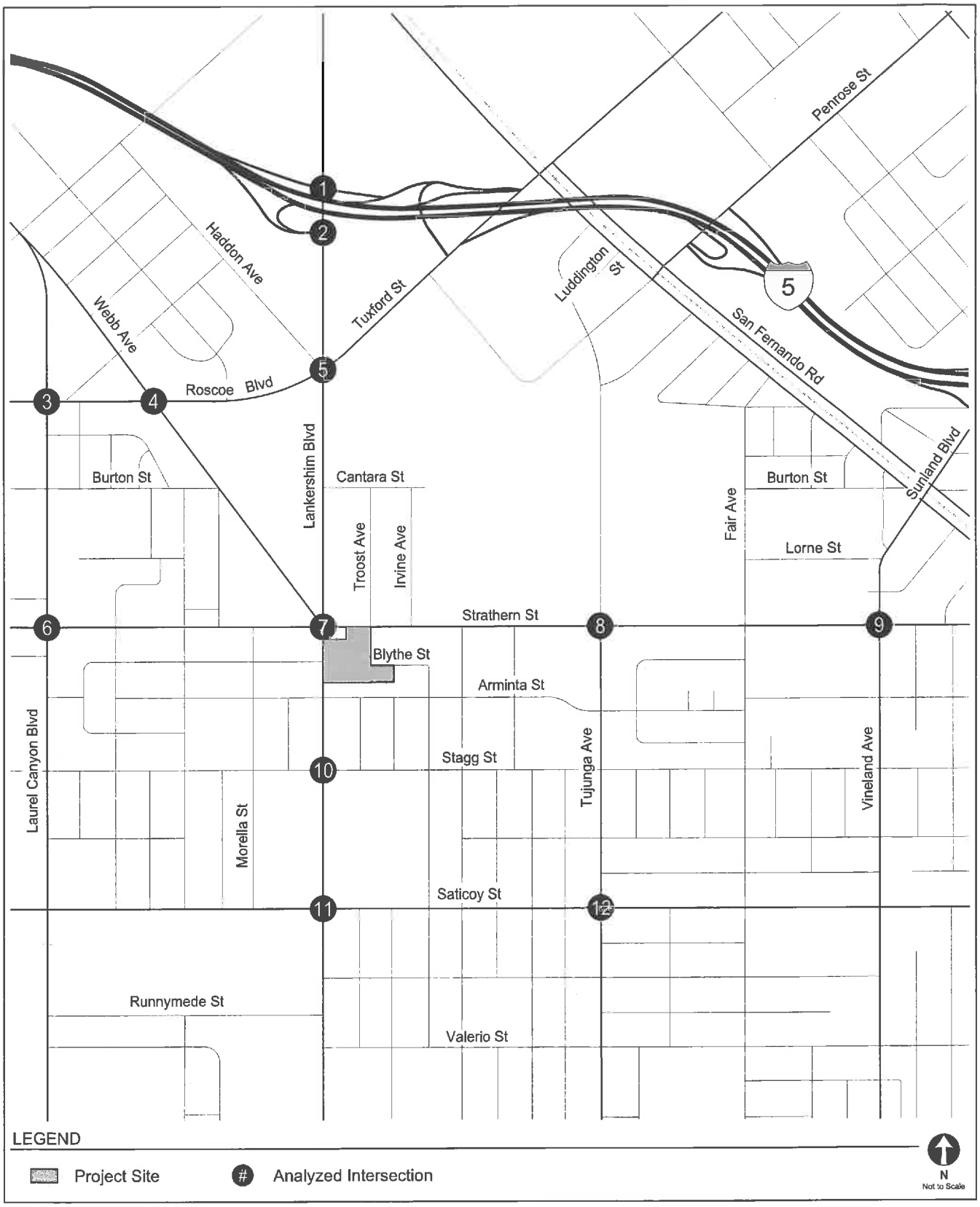
Approved by:	x _____	4-3-19	x _____	4-20-19
	Consultant's Representative	Date	LADOT Representative	Date



Source: Kamran Tabrizi, Architect & Associates. April, 2019.

PROJECT SITE PLAN

FIGURE 1



STUDY AREA

FIGURE 2

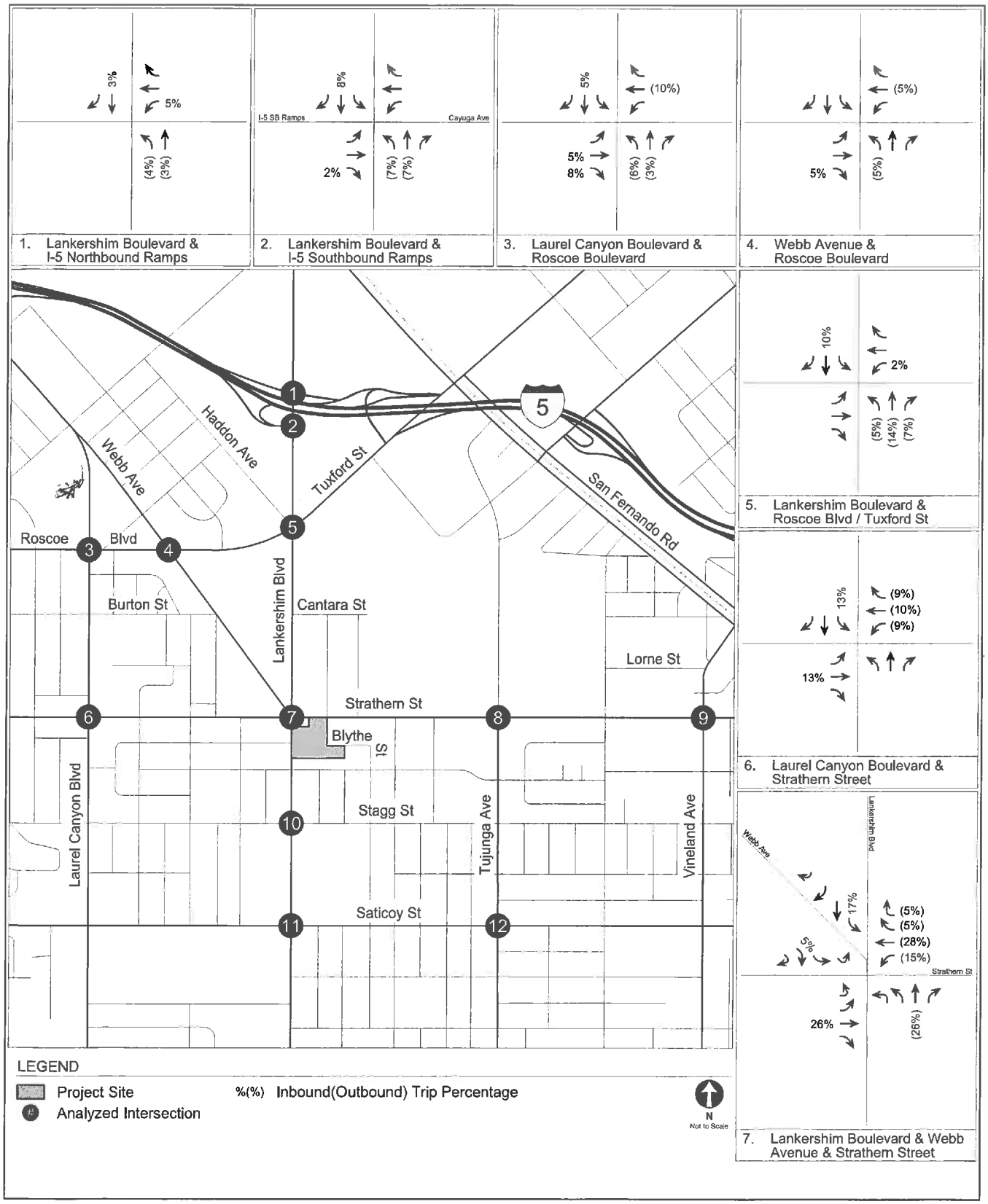
TABLE 1
STUDY INTERSECTIONS

No.	North/South Street	East/West Street	Jurisdiction
1.	Lankershim Boulevard	I-5 Northbound Ramps	City of Los Angeles / Caltrans
2.	Lankershim Boulevard	I-5 Southbound Ramps / Cayuga Avenue	City of Los Angeles / Caltrans
3.	Laurel Canyon Boulevard	Roscoe Boulevard	City of Los Angeles
4.	Webb Avenue	Roscoe Boulevard	City of Los Angeles
5.	Lankershim Boulevard	Roscoe Boulevard / Tuxford Street	City of Los Angeles
6.	Laurel Canyon Boulevard	Strathern Street	City of Los Angeles
7.	Lankershim Boulevard / Webb Avenue	Strathern Street	City of Los Angeles
8.	Tujunga Avenue	Strathern Street	City of Los Angeles
9.	Vineland Avenue	Strathern Street	City of Los Angeles
10.	Lankershim Boulevard	Stagg Street	City of Los Angeles
11.	Lankershim Boulevard	Saticoy Street	City of Los Angeles
12.	Tujunga Avenue	Saticoy Street	City of Los Angeles

TABLE 2
TRIP GENERATION

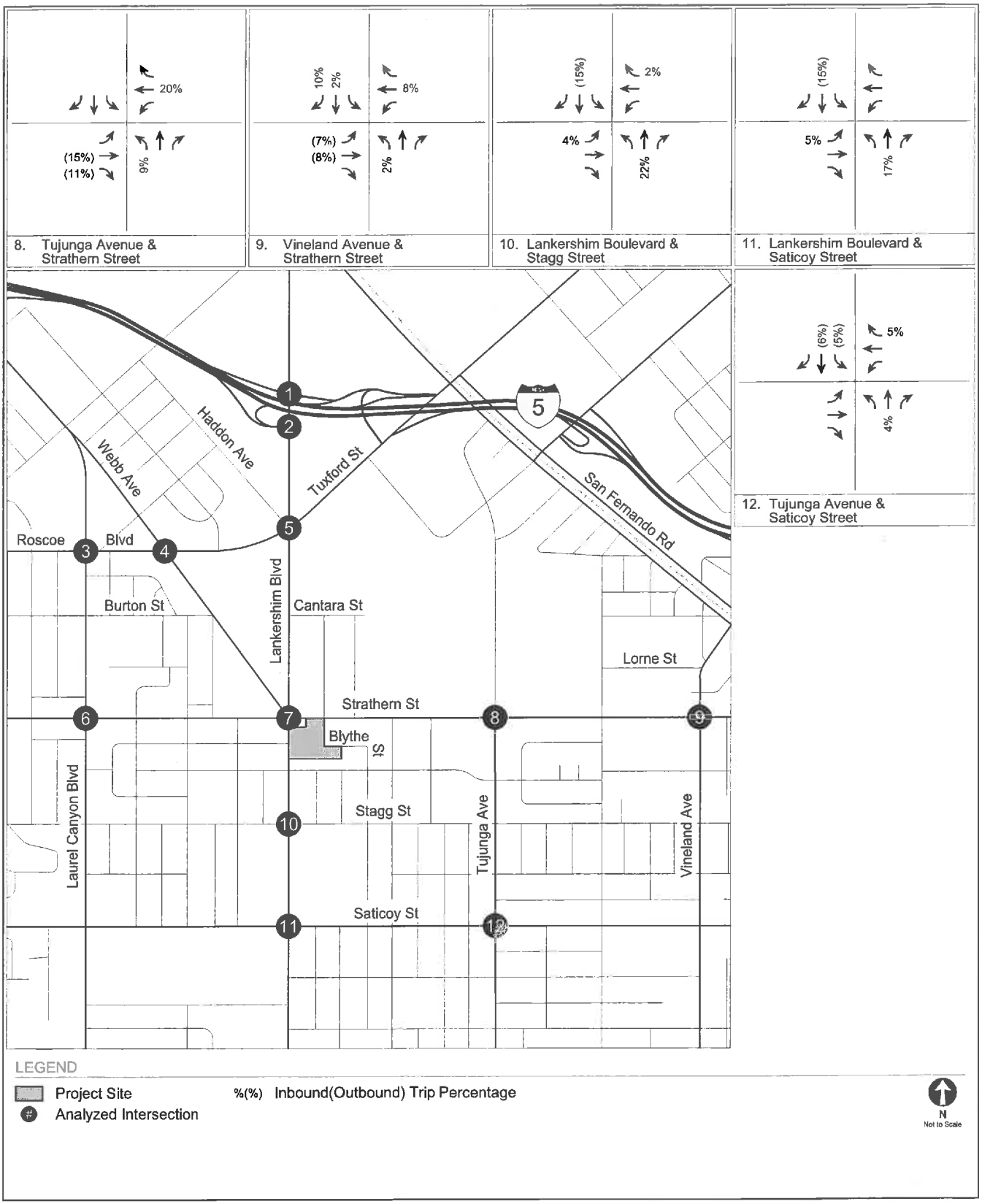
Land Use	ITE Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Generation Rates [a]									
Multifamily Housing (Mid-Rise)	221	per du	5.44	26%	74%	0.36	61%	39%	0.44
Pharmacy/Drugstore with Drive-Through Window	881	per ksf	109.16	53%	47%	3.84	50%	50%	10.29
High-Turnover Restaurant	932	per ksf	112.18	55%	45%	9.94	62%	38%	9.77
Construction Yard	[b]	per ksf	[c]	50%	50%	0.07	50%	50%	0.02
Proposed Project									
Multifamily Housing (Mid-Rise)	221	432 du	2,350	41	115	156	116	74	190
Less Walk-In/Transit Reduction - 10% [d]			*(235)*	*(4)*	*(12)*	*(16)*	*(12)*	*(7)*	*(19)*
Subtotal - Residential			**2,115**	**37**	**103**	**140**	**104**	**67**	**171**
Pharmacy/Drugstore with Drive-Through Window	881	14 ksf	1,528	29	25	54	72	72	144
Less 5% Internal Capture [e]			*(76)*	*(1)*	*(2)*	*(3)*	*(4)*	*(3)*	*(7)*
Less Walk-In/Transit Reduction - 10% [d]			*(145)*	*(3)*	*(2)*	*(5)*	*(7)*	*(7)*	*(14)*
Pass-by Reduction - 40% [f]			*(523)*	*(10)*	*(8)*	*(18)*	*(24)*	*(25)*	*(49)*
Subtotal - Pharmacy with Drive-Through Window			**784**	**15**	**13**	**28**	**37**	**37**	**74**
High-Turnover Restaurant	932	8 ksf	897	44	36	80	48	30	78
Less 5% Internal Capture [e]			*(45)*	*(2)*	*(2)*	*(4)*	*(2)*	*(2)*	*(4)*
Less Walk-In/Transit Reduction - 10% [d]			*(85)*	*(4)*	*(4)*	*(8)*	*(5)*	*(2)*	*(7)*
Pass-by Reduction - 20% [f]			*(153)*	*(8)*	*(6)*	*(14)*	*(8)*	*(5)*	*(13)*
Subtotal - Restaurant			**614**	**30**	**24**	**54**	**33**	**21**	**54**
Total - Proposed Project			**3,513**	**82**	**140**	**222**	**174**	**125**	**299**
Existing Uses to be Removed									
Construction Yard	[b]	180 ksf	**40**	**6**	**6**	**12**	**2**	**2**	**4**
TOTAL NET NEW PROJECT TRIPS			**3,473**	**76**	**134**	**210**	**172**	**123**	**295**

Notes:
1,000 square feet = ksf.
[a] Source: *Trip Generation, 10th Edition*, Institute of Transportation Engineers, 2017.
[b] Trips associated with the existing construciton yard were based on empirical counts collected at the Project driveway on Thursday, September 27th, 2018.
[c] A 24-hour count was not collected, therefore, the PM peak hour trips are assumed to equate to 10% of the daily trips.
[d] Per LADOT's *Transportation Impact Study Guidelines,* the Project Site is located within a 1/4 mile walking distance from a local bus stop, therefore a transit reduction is applied to account for transit usage and walking visitor arrivals.
[e] Internal capture adjustments account for person trips made between distinct land uses within a mixed-use development without using an off-site road system (e.g., residents visiting restaurant or retail uses).
[f] Pass-by adjustments account for Project trips made as an intermediate stop on the way from an origin to a primary trip destination without route diversion.



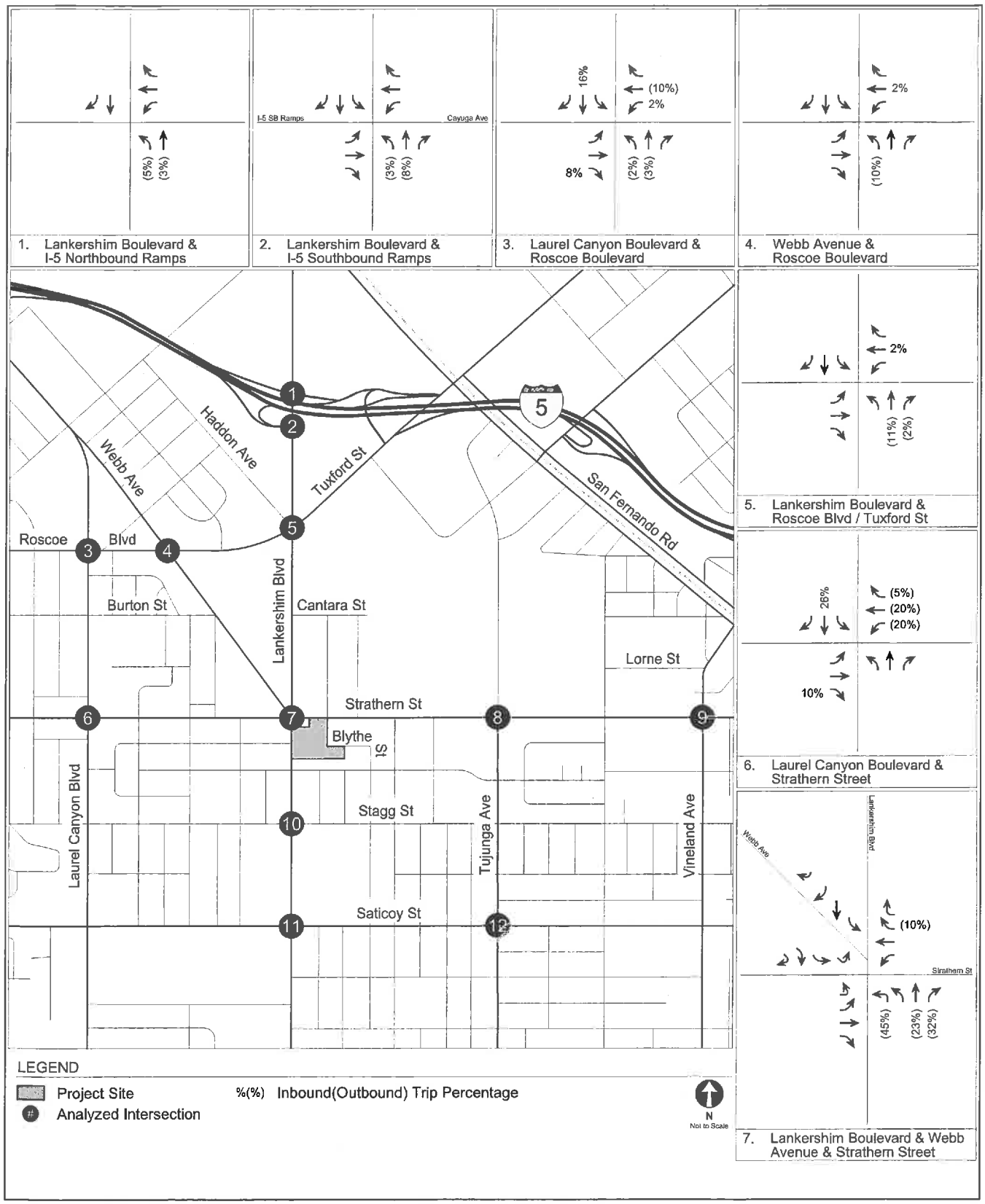
PROJECT TRIP DISTRIBUTION
RESIDENTIAL

FIGURE
3A



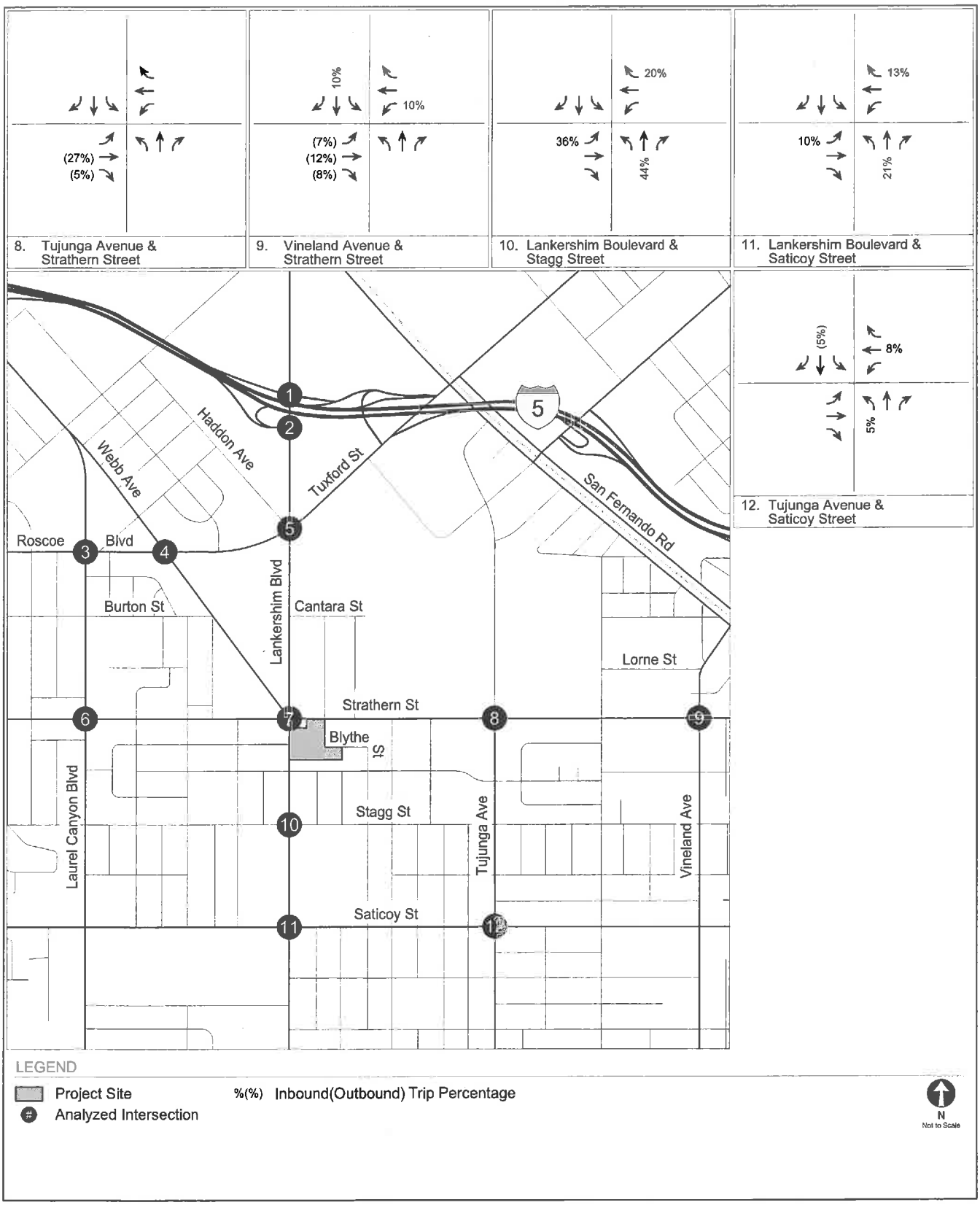
PROJECT TRIP DISTRIBUTION
RESIDENTIAL

FIGURE
3A (CONT.)



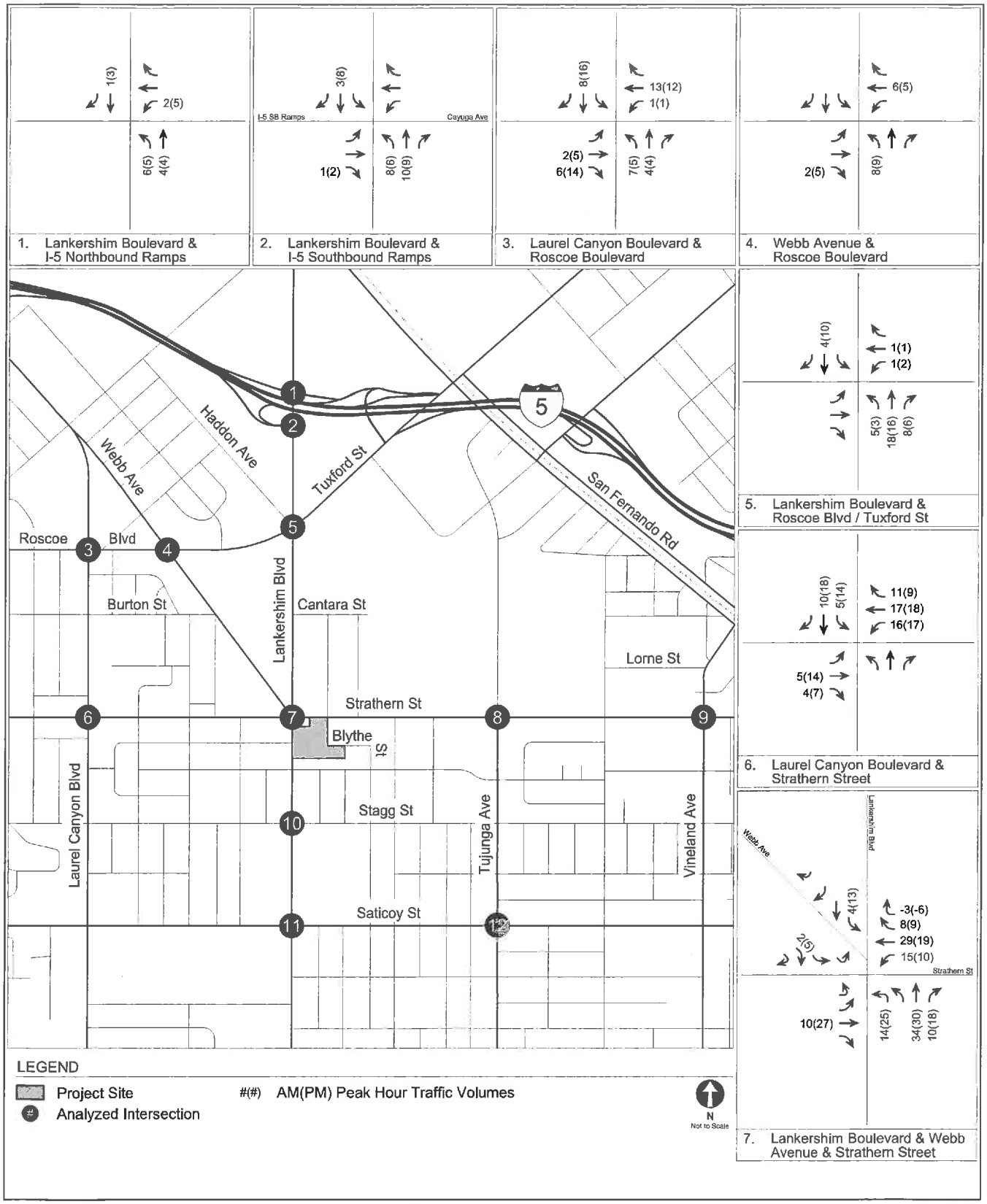
PROJECT TRIP DISTRIBUTION
COMMERCIAL

FIGURE
3B



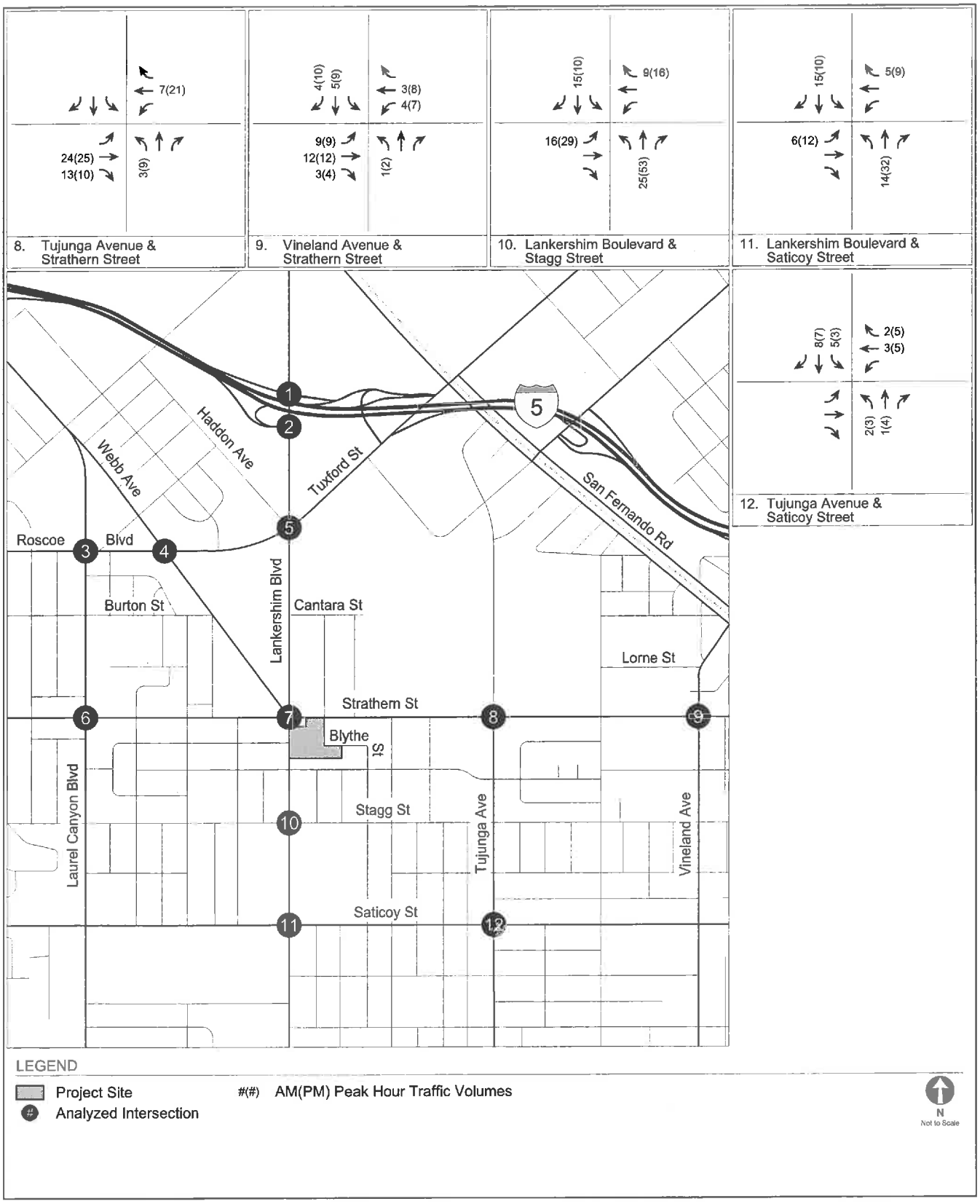
PROJECT TRIP DISTRIBUTION
COMMERCIAL

FIGURE
3B (CONT.)



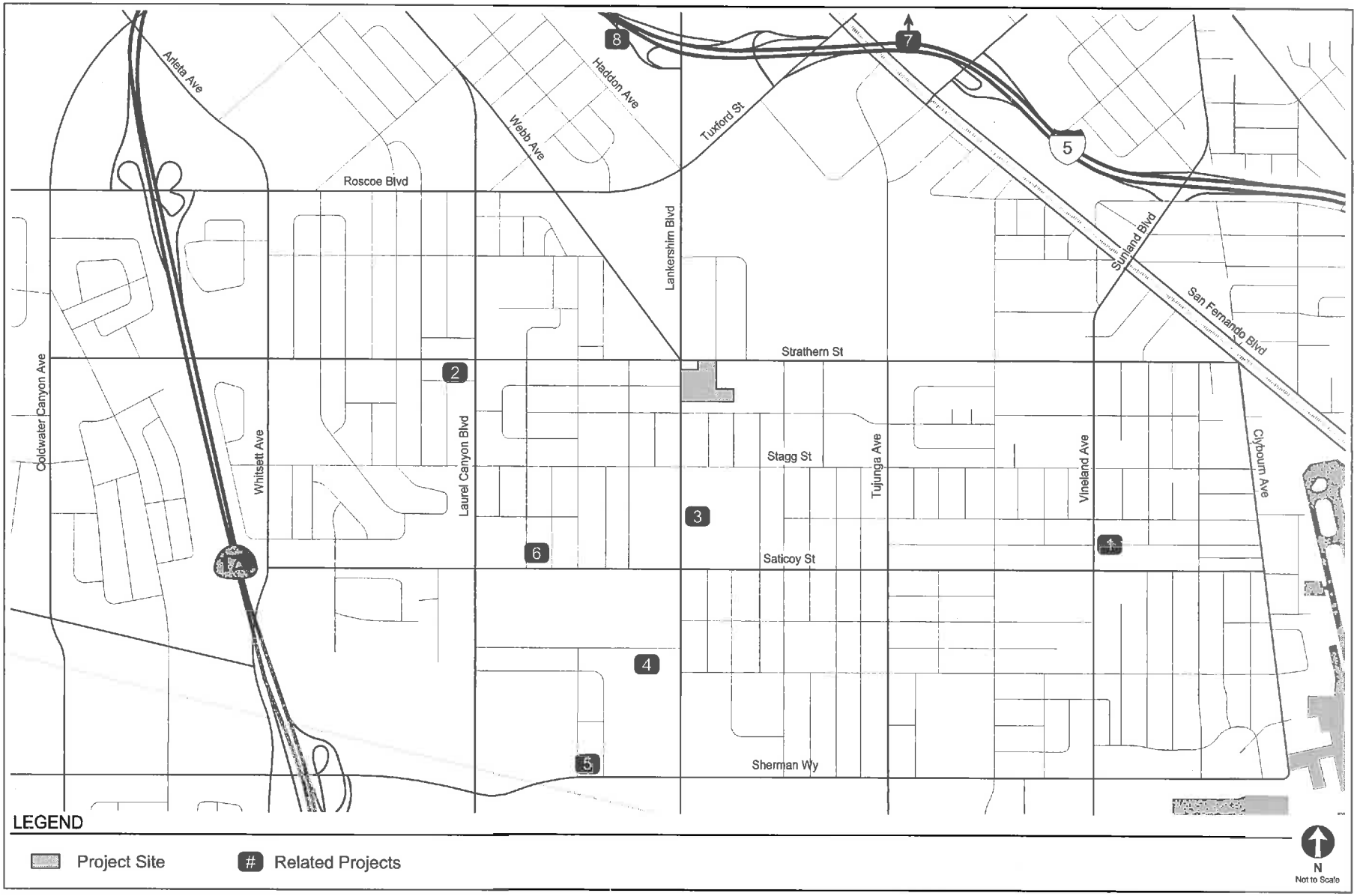
PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4 (CONT.)



LOCATIONS OF RELATED PROJECTS

FIGURE 5

TABLE 3
RELATED PROJECTS

No.	Project	Address	Description	Trip Generation [a]						
				Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	Mixed-Use	7634 Vineland Ave	10,750 sf retail, 11,950 sf office	466	20	5	25	11	25	36
2.	7-Eleven	7955 Laurel Canyon Bl	4,500 sf retail	586	35	37	72	14	12	26
3.	Residential Project	7660 Lankershim Bl	65 apartment units, 99 condominium units	856	5	56	61	54	21	75
4.	Mixed-Use	7401 N Lankershim Bl	108 apartment units, 2,370 sf retail	618	6	40	46	39	16	55
5.	CD02 Sherman Way Navigation Center	11839 W Sherman Way	Homeless Services Center	31	4	2	6	4	4	8
6.	LAUSD VRE School #7	11967 Saticoy St	800 seats K-5 school	1,430	174	143	317	41	49	90
7.	Community Recycling & Resource Recovery	9189 De Garmo Avenue	Recycling facility expansion to increase processing capacity	3,090	135	130	265	162	147	309
8.	Apartment	11957 W Allegheny Street	88 apartment units	585	9	36	45	35	19	54

Notes

[a] Related project information provided by the Los Angeles Department of Transportation in December 2018, Department of City Planning, and recent traffic studies prepared in the area.

TABLE 4
FREEWAY SEGMENT SCREENING PROCESS
EXISTING OPERATING CONDITIONS (YEAR 2018)

Freeway Segment	Direction	Number of Lanes [a]	Capacity [b]	Volume [c]	V/C Ratio	Project Traffic	Percent of Capacity	Meets Screening Criteria?
AM Peak Hour								
I-5 between Sunland Boulevard and Penrose Street	NB SB	5 5	10,000 10,000	8,910 5,470	0.89 0.55	2 13	0.0% 0.1%	NO NO
I-5 between Penrose Street and Tuxford Street	NB SB	5 5	10,000 10,000	9,773 5,790	0.98 0.58	2 13	0.0% 0.1%	NO NO
I-5 between Tuxford Street and Lankershim Boulevard	NB SB	5 5	10,000 10,000	7,955 5,619	0.80 0.56	2 8	0.0% 0.1%	NO NO
I-5 between Lankershim Boulevard & and Shledon Street	NB SB	5 5	10,000 10,000	9,760 6,062	0.98 0.61	6 1	0.1% 0.0%	NO NO
CA-170 between Victory Boulevard and Sherman Way	NB SB	4 4	8,000 8,000	4,465 5,427	0.56 0.68	4 7	0.1% 0.1%	NO NO
CA-170 between Sherman Way and Roscoe Boulevard	NB SB	4 4	8,000 8,000	3,269 4,886	0.41 0.61	1 3	0.0% 0.0%	NO NO
CA-170 between Roscoe Boulevard and Sheldon Street	NB SB	3 3	6,000 6,000	4,483 5,551	0.75 0.93	8 2	0.1% 0.0%	NO NO
PM Peak Hour								
I-5 between Sunland Boulevard and Penrose Street	NB SB	5 5	10,000 10,000	9,651 4,602	0.97 0.46	5 10	0.1% 0.1%	NO NO
I-5 between Penrose Street and Tuxford Street	NB SB	5 5	10,000 10,000	10,147 4,862	1.01 0.49	5 10	0.1% 0.1%	NO NO
I-5 between Tuxford Street and Lankershim Boulevard	NB SB	5 5	10,000 10,000	9,224 4,496	0.92 0.45	5 6	0.1% 0.1%	NO NO
I-5 between Lankershim Boulevard & and Shledon Street	NB SB	5 5	10,000 10,000	9,847 4,820	0.98 0.48	5 2	0.1% 0.0%	NO NO
CA-170 between Victory Boulevard and Sherman Way	NB SB	4 4	8,000 8,000	5,515 4,262	0.69 0.53	9 6	0.1% 0.1%	NO NO
CA-170 between Sherman Way and Roscoe Boulevard	NB SB	4 4	8,000 8,000	4,098 3,317	0.51 0.41	2 2	0.0% 0.0%	NO NO
CA-170 between Roscoe Boulevard and Sheldon Street	NB SB	3 3	6,000 6,000	4,156 4,426	0.69 0.74	6 7	0.1% 0.1%	NO NO

Notes
[a] Auxiliary lanes and high-occupancy vehicle (carpool) lanes are not counted toward number of lanes.
[b] Lane capacity is 2,000 vehicles per hour per lane based on specifications in the screening criteria.
[c] Traffic volume data was collected for a typical weekday in May 2018 from Caltrans' *Performance Measurement System (PeMS)*.
[d] Based on the *First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures* (Caltrans & LADOT, December 2015), further analysis of Caltrans facilities would be required if the freeway segment operates at LOS D and the project's peak hour trips would result in a 2% or more increase to the freeway mainline capacity, or if the freeway segment operates at LOS E or F and the project's peak hour trips would result in a 1% or more increase to the freeway mainline capacity. The Project would not result in a 1% or more increase to the freeway mainline capacity, thus, the screening criteria would not be met regardless of the freeway mainline LOS.

TABLE 5
FREEWAY OFF-RAMP SCREENING PROCESS
EXISTING OPERATING CONDITIONS (YEAR 2018)

Freeway Off-ramp	Peak Hour	Number of Lanes	Capacity [a]	Volume [b]	V/C Ratio	Project Traffic	Percent of Capacity	Meets Screening Criteria?
I-5 Northbound Off-ramp to Penrose Street	AM	1	850	224	0.26	2	0.2%	NO
	PM	1	850	233	0.27	3	0.4%	NO
I-5 Northbound Off-ramp to Tuxford Street / Lankershim Boulevard	AM	2	1,700	436	0.26	2	0.1%	NO
	PM	2	1,700	455	0.27	5	0.3%	NO
I-5 Southbound Off-ramp to Lankershim Boulevard	AM	1	850	383	0.45	1	0.1%	NO
	PM	1	850	400	0.47	2	0.2%	NO
I-5 Southbound Off-ramp to Sheldon Street / Laurel Canyon Boulevard	AM	1	850	254	0.30	8	0.9%	NO
	PM	1	850	266	0.31	16	1.9%	NO
CA-170 Northbound Off-ramp to Westbound Sherman Way	AM	1.5	1,275	863	0.68	0	0.0%	NO
	PM	1.5	1,275	1,008	0.79	0	0.0%	NO
CA-170 Northbound Off-ramp to Eastbound Sherman Way	AM	1	850	477	0.56	3	0.4%	NO
	PM	1	850	556	0.65	7	0.8%	NO
CA-170 Southbound Off-ramp to Sherman Way	AM	1	850	529	0.62	0	0.0%	NO
	PM	1	850	618	0.73	0	0.0%	NO
CA-170 Northbound Off-ramp to Roscoe Boulevard	AM	1.5	1,275	986	0.77	1	0.1%	NO
	PM	1.5	1,275	1,152	0.90	2	0.2%	NO
CA-170 Southbound Off-ramp to Roscoe Boulevard	AM	1	850	348	0.41	0	0.0%	NO
	PM	1	850	407	0.48	0	0.0%	NO

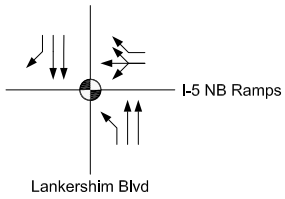
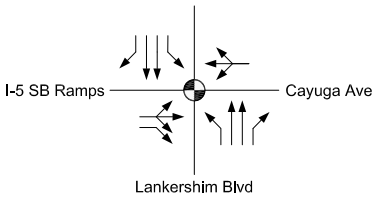
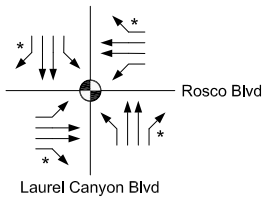
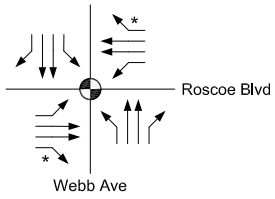
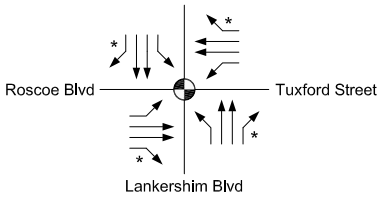
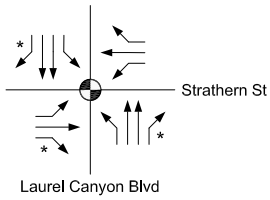
Notes
[a] Off-ramp lane capacity is 850 vehicles per hour per lane based on specifications in the screening criteria.
[b] Volume reflects counts that were taken at each ramp in November 2018.
[c] Based on the *First Amendment to the Agreement between LADOT and Caltrans District 7 on Freeway Impact Analysis Procedures* (Caltrans & LADOT, December 2015), further analysis of Caltrans facilities would be required if the freeway off-ramp operates at LOS D and the project's peak hour trips would result in a 2% or more increase to the freeway off-ramp capacity, or if the freeway off-ramp operates at LOS E or F and the project's peak hour trips would result in a 1% or more increase to the freeway off-ramp capacity. The Project would not result in a 1% or more increase to the freeway off-ramp capacity, thus, the screening criteria would not be met regardless of the freeway off-ramp LOS.

Appendix B

Intersection Lane Configurations

LEGEND

- Traffic Signal
- * Functional Right-Turn

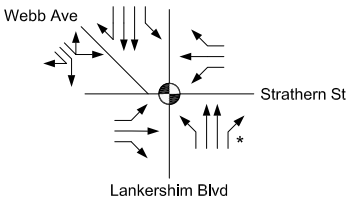
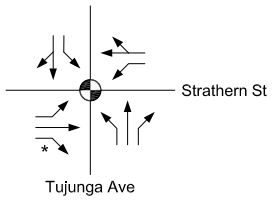
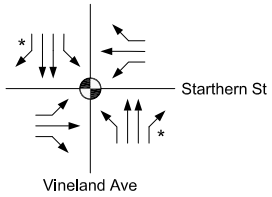
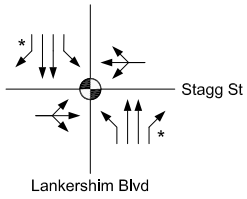
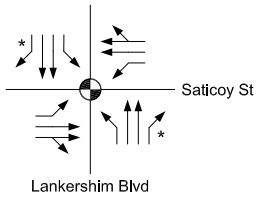
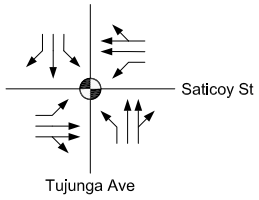
	EXISTING CONDITIONS (YEAR 2018)	FUTURE CONDITIONS (YEAR 2023)
1. Lankershim Boulevard & I-5 Northbound Ramps		Same as Existing Conditions
2. Lankershim Boulevard & I-5 Southbound Ramps / Cayuga Avenue		Same as Existing Conditions
3. Laurel Canyon Boulevard & Roscoe Boulevard		Same as Existing Conditions
4. Webb Avenue & Roscoe Boulevard		Same as Existing Conditions
5. Lankershim Boulevard & Roscoe Boulevard / Tuxford Street		Same as Existing Conditions
6. Laurel Canyon Boulevard & Strathern Street		Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

APPENDIX B

LEGEND

- Traffic Signal
- * Functional Right-Turn

	EXISTING CONDITIONS (YEAR 2018)	FUTURE CONDITIONS (YEAR 2023)
7. Lankershim Boulevard & Webb Aveue & Strathern Street		Same as Existing Conditions
8. Tujunga Avenue & Strathern Street		Same as Existing Conditions
9. Vineland Avenue & Strathern Street		Same as Existing Conditions
10. Lankershim Boulevard & Stagg Street		Same as Existing Conditions
11. Lankershim Boulevard & Saticoy Street		Same as Existing Conditions
12. Tujunga Avenue & Saticoy Street		Same as Existing Conditions

Appendix C

Traffic Counts

Turning Movement Count Report AM

Location ID: A
North/South: Lankershim Boulevard
East/West: Driveway / Blythe Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	0	0	1	0	0	0	2	138	0	0	0	0	141
7:15	0	0	0	1	0	0	1	186	0	0	0	0	188
7:30	0	0	0	1	0	1	0	241	0	0	0	0	243
7:45	0	0	1	0	0	2	1	205	0	0	0	0	209
8:00	0	0	1	0	0	1	2	177	0	0	0	0	181
8:15	0	0	0	1	0	0	0	124	0	0	0	0	125
8:30	0	0	1	0	0	0	0	142	0	0	0	0	143
8:45	0	0	0	0	0	1	2	124	0	0	0	0	127
9:00	0	0	1	0	0	2	1	149	0	0	0	0	153
9:15	0	0	2	1	0	0	0	135	0	0	0	0	138
9:30	0	0	1	0	0	1	0	156	0	0	0	0	158
9:45	0	0	2	0	0	0	2	122	0	0	0	0	126

Total Volume:	0	0	10	4	0	8	11	1899	0	0	0	0	1932
Approach %	0%	0%	100%	33%	0%	67%	1%	99%	0%	0%	0%	0%	

Peak Hr Begin:	7:15												
PHV	0	0	2	2	0	4	4	809	0	0	0	0	821
PHF	0.500			0.750			0.843			0.000			0.845

Turning Movement Count Report PM

Location ID: 0
North/South: Lankershim Boulevard
East/West: Driveway / Blythe Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	0	0	1	0	0	2	2	251	0	0	0	0	256
15:15	0	0	1	1	0	2	2	187	0	0	0	0	193
15:30	0	0	1	1	0	1	2	252	0	0	0	0	257
15:45	0	0	0	1	0	1	1	284	0	0	0	0	287
16:00	0	0	0	0	0	1	1	307	0	0	0	0	309
16:15	0	0	0	1	0	1	1	248	0	0	0	0	251
16:30	0	0	0	0	0	1	0	298	0	0	0	0	299
16:45	0	0	0	0	0	0	0	283	0	0	0	0	283
17:00	0	0	1	1	0	0	1	303	0	0	0	0	306
17:15	0	0	0	0	0	0	0	306	0	0	0	0	306
17:30	0	0	0	0	0	0	1	279	0	0	0	0	280
17:45	0	0	0	1	0	0	0	294	0	0	0	0	295

Total Volume:	0	0	4	6	0	9	11	3292	0	0	0	0	3322
Approach %	0%	0%	100%	40%	0%	60%	0%	100%	0%	0%	0%	0%	

Peak Hr Begin:	16:30												
PHV	0	0	1	1	0	1	1	1190	0	0	0	0	1194
PHF	0.250			0.500			0.973			0.000			0.975

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	3	2	0	0	0	0
7:15	0	0	0	0	1	0	0	0
7:30	0	0	2	0	1	0	0	0
7:45	0	0	1	1	0	0	0	0
8:00	0	0	1	0	0	0	0	0
8:15	0	0	2	0	1	0	0	0
8:30	0	0	2	0	0	1	0	0
8:45	0	0	4	0	0	0	0	0
9:00	0	0	7	0	0	0	0	0
9:15	0	0	3	0	0	0	0	0
9:30	0	0	4	0	2	0	0	0
9:45	0	0	1	0	1	0	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	1	1	0	0	0	0
15:15	0	0	3	0	0	0	0	0
15:30	0	0	5	2	0	0	0	0
15:45	0	0	3	2	2	0	0	0
16:00	0	0	6	0	0	0	0	0
16:15	0	0	7	2	0	0	0	0
16:30	0	0	1	1	0	0	0	0
16:45	0	0	3	1	0	0	0	0
17:00	0	0	2	2	0	0	0	0
17:15	0	0	3	1	0	0	0	0
17:30	0	0	2	0	0	0	0	0
17:45	0	0	2	0	0	0	0	0

Turning Movement Count Report AM

Location ID: 1
North/South: Lankershim Boulevard
East/West: I-5 NB Ramps

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	23	119	0	56	0	21	0	81	72	0	0	0	372
7:15	39	138	0	55	0	20	0	87	84	0	0	0	423
7:30	22	144	0	47	0	23	0	102	93	0	0	0	431
7:45	29	179	0	71	0	32	0	141	85	0	0	0	537
8:00	13	126	0	63	0	24	0	104	65	0	0	0	395
8:15	17	109	0	23	0	27	0	102	54	0	0	0	332
8:30	15	85	0	29	0	24	0	74	56	0	0	0	283
8:45	10	100	0	37	0	23	0	82	40	0	0	0	292
9:00	18	77	0	20	0	17	0	104	42	0	0	0	278
9:15	14	77	0	19	0	13	0	73	32	0	0	0	228
9:30	13	100	0	22	0	8	0	85	47	0	0	0	275
9:45	12	82	0	20	0	22	0	83	42	0	0	0	261

Total Volume:	225	1336	0	462	0	254	0	1118	712	0	0	0	4107
Approach %	14%	86%	0%	65%	0%	35%	0%	61%	39%	0%	0%	0%	

Peak Hr Begin:	7:15												
PHV	103	587	0	236	0	99	0	434	327	0	0	0	1786
PHF	0.829			0.813			0.842			0.000			0.831

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 1
North/South: Lankershim Boulevard
East/West: I-5 NB Ramps

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	34	107	0	23	0	7	0	140	86	0	0	0	397
15:15	33	102	0	54	1	25	0	117	75	0	0	0	407
15:30	41	138	0	43	0	31	0	159	77	0	0	0	489
15:45	24	126	0	49	1	27	0	144	68	0	0	0	439
16:00	22	127	0	45	0	33	0	150	68	0	0	0	445
16:15	14	115	0	60	3	29	0	123	62	0	0	0	406
16:30	17	120	0	47	0	25	0	129	84	0	0	0	422
16:45	21	102	0	55	3	30	0	146	71	0	0	0	428
17:00	31	160	0	41	0	20	0	154	85	0	0	0	491
17:15	13	102	0	36	0	23	0	121	76	0	0	0	371
17:30	18	93	0	48	0	17	0	124	67	0	0	0	367
17:45	19	113	0	43	1	17	0	134	64	0	0	0	391
Total Volume:	287	1405	0	544	9	284	0	1641	883	0	0	0	5053
Approach %	17%	83%	0%	65%	1%	34%	0%	65%	35%	0%	0%	0%	
Peak Hr Begin:	15:15												
PHV	120	493	0	191	2	116	0	570	288	0	0	0	1780
PHF	0.856			0.966			0.909			0.000			0.910

Prepared by City Count, LLC. (www.citycount.com)

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	4	0	0	0	1	0
7:15	0	0	0	0	0	0	2	0
7:30	0	0	1	0	0	0	2	1
7:45	0	0	1	0	0	0	1	0
8:00	0	0	0	0	0	0	0	0
8:15	0	0	1	0	0	0	1	0
8:30	0	0	1	0	0	0	1	0
8:45	0	0	2	1	0	0	1	0
9:00	0	0	0	0	0	0	1	0
9:15	0	0	2	0	0	0	0	0
9:30	0	0	2	0	0	0	1	0
9:45	0	0	0	0	0	0	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	1	0	0	0	0	0
15:15	0	0	1	0	0	0	0	0
15:30	0	0	1	0	0	0	0	0
15:45	0	0	0	0	0	0	1	0
16:00	0	0	1	0	0	0	1	0
16:15	0	0	1	2	0	0	2	0
16:30	0	0	3	1	0	0	0	0
16:45	0	0	2	0	0	0	2	0
17:00	0	0	6	0	0	0	1	0
17:15	0	0	1	0	0	0	1	1
17:30	0	0	1	0	0	0	0	1
17:45	0	0	1	0	0	0	0	1

Turning Movement Count Report AM

Location ID: 2
North/South: Lankershim Boulevard
East/West: I-5 SB Ramps

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	27	114	1	4	1	0	0	135	1	53	1	15	352
7:15	32	128	1	2	1	0	0	151	2	86	5	26	434
7:30	20	145	0	8	0	0	0	174	2	114	10	18	491
7:45	33	171	3	2	0	1	4	188	3	149	12	43	609
8:00	16	131	1	7	1	0	2	138	0	135	11	22	464
8:15	17	118	3	1	0	0	1	130	3	160	13	28	474
8:30	16	95	1	5	0	0	0	97	2	144	16	26	402
8:45	20	98	0	2	0	0	2	99	2	150	11	26	410
9:00	14	81	1	2	0	0	2	110	1	131	5	26	373
9:15	18	69	1	4	1	1	0	91	3	83	7	16	294
9:30	19	88	1	6	1	2	3	97	3	71	8	29	328
9:45	19	82	4	4	0	0	0	87	3	61	9	21	290
Total Volume:	251	1320	17	47	5	4	14	1497	25	1337	108	296	4921
Approach %	16%	83%	1%	84%	9%	7%	1%	97%	2%	77%	6%	17%	
Peak Hr Begin:	7:30												
PHV	86	565	7	18	1	1	7	630	8	558	46	111	2038
PHF	0.795			0.625			0.827			0.876			0.837

Turning Movement Count Report PM

Location ID: 2
North/South: Lankershim Boulevard
East/West: I-5 SB Ramps

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	26	79	1	11	1	0	3	188	2	86	6	25	428
15:15	38	91	4	1	0	1	0	174	2	69	4	19	403
15:30	37	136	0	12	1	0	1	193	5	65	2	34	486
15:45	30	116	3	3	0	1	1	187	7	71	5	23	447
16:00	33	123	1	6	1	1	0	183	3	87	5	20	463
16:15	30	116	1	2	0	0	2	153	4	89	3	21	421
16:30	40	109	1	7	0	1	1	195	3	68	2	19	446
16:45	29	108	3	7	2	2	3	177	1	80	4	29	445
17:00	38	131	1	12	1	1	0	213	2	81	2	12	494
17:15	25	91	1	7	0	0	1	172	4	89	2	16	408
17:30	32	90	0	5	0	1	3	166	3	94	3	17	414
17:45	29	88	0	6	1	0	2	172	0	77	2	14	391
Total Volume:	387	1278	16	79	7	8	17	2173	36	956	40	249	5246
Approach %	23%	76%	1%	84%	7%	9%	1%	98%	2%	77%	3%	20%	
Peak Hr Begin:	15:30												
PHV	130	491	5	23	2	2	4	716	19	312	15	98	1817
PHF	0.905			0.519			0.928			0.940			0.935

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	2	0	1	0	1	0
7:15	0	0	2	0	1	0	2	0
7:30	0	0	0	0	1	0	3	0
7:45	0	0	1	0	0	0	1	0
8:00	0	0	0	0	1	0	0	0
8:15	0	0	1	0	1	0	1	0
8:30	0	0	1	1	0	2	1	0
8:45	0	0	1	0	1	0	1	0
9:00	0	0	1	0	0	0	0	0
9:15	0	0	1	0	0	0	0	0
9:30	0	0	1	0	0	0	0	0
9:45	0	0	0	0	0	0	1	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	1	0	0	0	0	0
15:15	0	0	1	0	0	0	0	0
15:30	0	0	1	0	0	0	0	0
15:45	0	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	1	0
16:15	0	0	0	1	0	0	2	1
16:30	0	0	2	1	0	0	0	0
16:45	0	0	2	0	0	0	2	0
17:00	0	0	1	1	0	0	1	1
17:15	0	0	1	0	0	0	2	0
17:30	0	0	0	0	0	0	0	1
17:45	0	0	1	0	0	0	0	1

Turning Movement Count Report AM

Location ID: 4
North/South: Laurel Canyon Boulevard
East/West: Roscoe Boulevard

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	4	90	17	7	152	29	30	64	64	24	201	4	686
7:15	10	128	20	10	196	18	38	61	64	37	221	9	812
7:30	11	146	13	7	222	27	28	92	71	40	234	23	914
7:45	13	163	21	10	214	28	31	116	82	58	240	21	997
8:00	10	129	30	12	173	38	34	88	45	40	239	10	848
8:15	14	102	19	7	158	42	31	56	35	26	183	5	678
8:30	8	82	22	9	145	35	33	38	23	23	218	7	643
8:45	3	90	22	13	144	34	15	53	35	28	211	6	654
9:00	5	78	16	11	147	37	14	54	22	21	201	11	617
9:15	6	66	37	20	150	22	9	38	23	17	171	9	568
9:30	12	69	14	20	124	21	24	59	28	17	202	6	596
9:45	7	58	15	13	149	22	30	46	29	32	153	8	562
Total Volume:	103	1201	246	139	1974	353	317	765	521	363	2474	119	8575
Approach %	7%	77%	16%	6%	80%	14%	20%	48%	33%	12%	84%	4%	
Peak Hr Begin:	7:15												
PHV	44	566	84	39	805	111	131	357	262	175	934	63	3571
PHF	0.881			0.933			0.819			0.918			0.895

Turning Movement Count Report PM

Location ID: 4
North/South: Laurel Canyon Boulevard
East/West: Roscoe Boulevard

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	18	83	36	26	191	27	49	108	65	51	223	19	896
15:15	18	99	44	20	192	24	47	119	57	44	261	19	944
15:30	19	100	49	31	202	34	39	167	52	31	192	16	932
15:45	30	105	37	31	220	34	42	139	50	36	205	17	946
16:00	15	90	31	29	235	24	39	160	55	32	235	25	970
16:15	26	104	34	22	202	28	45	139	47	25	229	21	922
16:30	16	92	40	26	285	33	46	181	51	25	228	20	1043
16:45	17	99	38	34	234	40	44	160	40	34	220	17	977
17:00	19	111	39	29	268	41	53	164	60	35	212	22	1053
17:15	32	97	36	27	251	35	53	200	57	47	248	17	1100
17:30	23	117	35	24	229	30	54	163	52	44	206	26	1003
17:45	26	105	27	25	238	29	55	141	58	34	214	19	971

Total Volume:	259	1202	446	324	2747	379	566	1841	644	438	2673	238	11757
Approach %	14%	63%	23%	9%	80%	11%	19%	60%	21%	13%	80%	7%	

Peak Hr Begin:	16:30												
PHV	84	399	153	116	1038	149	196	705	208	141	908	76	4173
PHF	0.941			0.947			0.894			0.901			0.948

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	11	0	2	0	5	0	9	0
7:15	6	0	3	0	6	0	7	0
7:30	11	0	3	0	2	0	10	0
7:45	18	1	4	0	8	0	6	0
8:00	3	0	2	0	2	0	4	1
8:15	3	0	1	0	3	0	2	0
8:30	3	1	0	1	0	0	7	0
8:45	8	2	1	1	3	1	9	1
9:00	6	1	3	0	1	0	11	1
9:15	3	1	4	1	4	1	10	0
9:30	8	0	1	0	5	0	9	0
9:45	2	0	1	0	1	1	7	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	15	0	0	0	12	0	23	0
15:15	11	1	0	2	22	0	40	0
15:30	13	0	0	2	5	0	12	0
15:45	4	1	0	0	6	1	13	0
16:00	8	0	0	0	10	0	11	1
16:15	7	1	0	0	12	0	17	0
16:30	9	1	0	0	8	0	20	1
16:45	10	0	1	1	8	1	19	0
17:00	11	0	0	0	3	0	16	3
17:15	9	0	0	0	11	1	10	3
17:30	3	1	0	0	9	1	17	1
17:45	3	0	0	0	2	1	12	0

Turning Movement Count Report AM

Location ID: 5
North/South: Webb Avenue
East/West: Roscoe Boulevard

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	9	64	21	4	130	8	14	27	35	53	185	2	552
7:15	8	84	26	11	166	9	16	39	36	53	218	7	673
7:30	18	128	25	15	193	9	14	65	45	69	214	2	797
7:45	23	108	38	11	195	13	14	70	43	70	215	4	804
8:00	15	86	14	15	162	11	13	42	34	60	227	5	684
8:15	11	70	19	7	169	11	12	23	25	45	178	6	576
8:30	8	67	17	5	149	10	12	27	27	65	190	7	584
8:45	7	61	16	5	154	7	12	23	24	59	179	2	549
9:00	3	40	21	2	157	15	7	22	31	59	168	3	528
9:15	5	38	12	8	153	8	10	29	34	49	163	4	513
9:30	2	36	11	5	126	6	13	31	31	40	186	2	489
9:45	4	41	14	5	153	5	8	26	34	26	165	2	483

Total Volume:	113	823	234	93	1907	112	145	424	399	648	2288	46	7232
Approach %	10%	70%	20%	4%	90%	5%	15%	44%	41%	22%	77%	2%	

Peak Hr Begin:	7:15												
PHV	64	406	103	52	716	42	57	216	158	252	874	18	2958
PHF	0.838			0.925			0.848			0.979			0.920

Turning Movement Count Report PM

Location ID: 5
North/South: Webb Avenue
East/West: Roscoe Boulevard

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	8	69	19	19	186	11	13	58	48	72	220	4	727
15:15	11	84	15	13	198	23	6	60	46	75	250	5	786
15:30	9	43	17	20	209	16	11	53	34	57	208	4	681
15:45	12	53	5	20	222	15	15	54	49	50	213	8	716
16:00	13	42	17	18	228	19	13	48	46	54	229	5	732
16:15	12	51	15	23	222	17	15	68	40	52	239	4	758
16:30	12	46	15	32	284	28	14	90	48	61	240	13	883
16:45	9	44	11	21	230	18	13	72	48	62	233	5	766
17:00	8	45	14	29	291	14	18	72	43	50	232	13	829
17:15	7	58	15	28	246	12	14	86	37	58	260	8	829
17:30	10	38	10	28	221	14	16	78	42	50	224	11	742
17:45	7	43	14	21	237	19	9	76	48	51	235	7	767
Total Volume:	118	616	167	272	2774	206	157	815	529	692	2783	87	9216
Approach %	13%	68%	19%	8%	85%	6%	10%	54%	35%	19%	78%	2%	
Peak Hr Begin:	16:30												
PHV	36	193	55	110	1051	72	59	320	176	231	965	39	3307
PHF	0.888			0.896			0.913			0.947			0.936

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	0	0	1	0	0	0
7:15	0	0	0	0	3	0	1	0
7:30	1	0	0	0	1	0	0	0
7:45	0	0	0	0	3	0	0	0
8:00	0	0	0	0	2	1	0	0
8:15	2	0	0	0	0	0	0	0
8:30	1	0	0	0	2	1	0	0
8:45	0	0	0	1	1	0	0	0
9:00	1	0	1	0	1	0	0	0
9:15	1	0	0	0	0	0	2	0
9:30	0	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	0	0	1	0	0	0
15:15	0	0	0	0	2	1	0	0
15:30	1	0	0	0	1	0	1	0
15:45	0	0	0	0	1	1	0	0
16:00	1	0	0	0	0	0	2	0
16:15	1	0	3	0	3	0	2	0
16:30	1	0	1	0	1	1	0	0
16:45	0	0	0	1	0	0	0	1
17:00	0	0	0	1	0	3	2	0
17:15	1	0	1	0	1	0	0	0
17:30	0	0	1	0	1	1	0	0
17:45	0	0	0	0	0	0	0	2

Turning Movement Count Report AM

Location ID: 6
North/South: Lankershim Boulevard
East/West: Roscoe Boulevard / Tuxford Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	10	156	11	7	144	47	57	116	5	13	190	19	775
7:15	12	190	9	9	159	40	68	134	16	14	226	23	900
7:30	9	235	10	12	166	63	74	144	21	13	222	20	989
7:45	16	246	19	10	216	52	50	162	18	15	228	28	1060
8:00	16	225	18	7	151	58	75	128	14	23	221	16	952
8:15	21	232	11	9	170	68	53	96	6	19	170	12	867
8:30	18	193	28	4	140	47	38	85	8	27	178	18	784
8:45	23	192	30	8	140	49	33	81	5	26	168	12	767
9:00	25	152	26	7	136	52	56	92	8	21	167	12	754
9:15	9	114	19	6	150	35	57	68	12	20	138	20	648
9:30	10	121	27	7	114	27	68	92	6	19	186	15	692
9:45	18	102	23	7	129	52	39	72	10	22	152	15	641

Total Volume:	187	2158	231	93	1815	590	668	1270	129	232	2246	210	9829
Approach %	7%	84%	9%	4%	73%	24%	32%	61%	6%	9%	84%	8%	

Peak Hr Begin:	7:15												
PHV	53	896	56	38	692	213	267	568	69	65	897	87	3901
PHF	0.894			0.848			0.946			0.968			0.920

Turning Movement Count Report PM

Location ID: 6
North/South: Lankershim Boulevard
East/West: Roscoe Boulevard / Tuxford Street
Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	22	120	13	10	183	27	89	195	17	21	192	19	908
15:15	28	118	14	11	199	42	63	145	13	32	245	17	927
15:30	29	145	14	8	203	49	99	153	17	19	183	28	947
15:45	24	138	16	12	217	45	111	170	20	23	201	23	1000
16:00	33	155	17	5	211	44	107	155	22	25	217	22	1013
16:15	26	151	5	5	204	53	82	137	30	24	230	20	967
16:30	29	146	18	7	265	56	94	174	35	29	220	20	1093
16:45	36	144	11	6	226	38	106	156	21	23	230	24	1021
17:00	29	172	10	8	265	34	128	178	31	18	231	15	1119
17:15	24	138	11	9	243	40	119	144	35	24	249	11	1047
17:30	20	151	7	5	222	28	116	156	20	26	239	11	1001
17:45	37	114	4	8	232	43	111	154	24	22	224	12	985
Total Volume:	337	1692	140	94	2670	499	1225	1917	285	286	2661	222	12028
Approach %	16%	78%	6%	3%	82%	15%	36%	56%	8%	9%	84%	7%	
Peak Hr Begin:	16:30												
PHV	118	600	50	30	999	168	447	652	122	94	930	70	4280
PHF	0.910			0.912			0.906			0.963			0.956

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	5	1	6	0	0	0	0	0
7:15	5	0	5	0	0	0	1	1
7:30	3	0	1	0	0	0	1	0
7:45	3	0	1	0	0	0	0	0
8:00	6	0	1	0	1	0	1	0
8:15	4	0	0	0	1	0	0	0
8:30	2	0	3	0	1	1	0	0
8:45	2	0	2	0	0	0	1	0
9:00	3	0	6	0	0	0	0	0
9:15	2	0	4	0	0	0	0	0
9:30	1	0	3	0	1	0	0	0
9:45	2	0	2	1	0	0	1	1

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	1	1	6	0	0	0	3	1
15:15	10	0	6	0	0	0	5	1
15:30	9	1	4	0	0	0	6	1
15:45	2	1	1	0	1	0	2	0
16:00	8	0	2	0	0	0	4	1
16:15	6	1	0	1	0	0	3	2
16:30	10	0	5	0	0	0	10	0
16:45	1	1	6	0	0	0	3	2
17:00	7	0	3	1	1	0	2	1
17:15	3	1	0	0	0	0	4	1
17:30	7	0	1	0	0	0	4	1
17:45	7	0	3	0	0	0	2	0

Turning Movement Count Report AM

Location ID: 7
North/South: Laurel Canyon Boulevard
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	7	142	4	27	49	11	12	98	14	17	54	16	451
7:15	11	154	13	21	88	21	10	121	19	17	80	14	569
7:30	28	162	25	28	120	15	8	141	16	31	90	29	693
7:45	32	194	26	41	104	15	14	179	18	29	111	39	802
8:00	18	186	22	21	65	18	14	102	4	24	103	27	604
8:15	13	154	7	24	41	20	13	85	5	16	79	11	468
8:30	10	117	6	6	37	11	9	77	9	19	47	12	360
8:45	10	121	11	16	44	14	14	72	5	8	63	7	385
9:00	13	124	10	12	33	13	13	68	10	9	32	14	351
9:15	8	95	11	9	28	13	6	57	6	5	45	8	291
9:30	9	84	6	13	36	20	12	80	7	10	45	12	334
9:45	12	89	11	16	28	15	11	88	5	9	55	16	355
Total Volume:	171	1622	152	234	673	186	136	1168	118	194	804	205	5663
Approach %	9%	83%	8%	21%	62%	17%	10%	82%	8%	16%	67%	17%	
Peak Hr Begin:	7:15												
PHV	89	696	86	111	377	69	46	543	57	101	384	109	2668
PHF	0.864			0.854			0.765			0.830			0.832

Turning Movement Count Report PM

Location ID: 7
North/South: Laurel Canyon Boulevard
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	12	132	17	26	85	15	11	141	13	18	84	24	578
15:15	18	119	21	33	64	12	19	159	17	10	73	24	569
15:30	15	120	21	28	72	16	18	214	19	10	61	25	619
15:45	14	119	22	25	75	22	23	167	11	12	68	20	578
16:00	16	106	14	22	76	20	21	219	19	11	69	26	619
16:15	15	112	18	23	78	21	24	195	14	13	77	28	618
16:30	13	107	15	34	77	23	25	247	19	14	69	24	667
16:45	17	140	16	20	89	18	24	185	23	13	64	37	646
17:00	18	145	10	24	82	18	15	234	24	17	79	32	698
17:15	18	131	10	31	104	19	19	258	14	17	82	39	742
17:30	23	144	18	30	91	17	29	200	27	18	98	35	730
17:45	21	121	16	30	63	25	20	203	21	13	74	30	637
Total Volume:	200	1496	198	326	956	226	248	2422	221	166	898	344	7701
Approach %	11%	79%	10%	22%	63%	15%	9%	84%	8%	12%	64%	24%	
Peak Hr Begin:	16:45												
PHV	76	560	54	105	366	72	87	877	88	65	323	143	2816
PHF	0.932			0.881			0.904			0.879			0.949

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	1	3	0	4	1	3	1
7:15	0	1	3	2	4	0	1	0
7:30	0	0	6	1	12	1	7	0
7:45	0	1	5	0	6	0	2	0
8:00	0	0	10	0	4	0	1	0
8:15	1	0	7	0	0	0	4	0
8:30	0	0	1	0	2	0	3	0
8:45	1	0	3	0	4	0	6	0
9:00	0	0	3	0	2	0	2	0
9:15	0	0	2	0	1	0	3	0
9:30	0	0	3	0	2	0	4	1
9:45	0	0	6	1	2	1	3	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	1	0	1	0	4	1
15:15	0	0	6	1	3	0	6	0
15:30	2	0	6	2	7	0	8	0
15:45	2	0	5	1	1	0	2	0
16:00	0	0	3	0	5	0	4	1
16:15	0	0	5	0	0	0	5	1
16:30	0	0	1	1	4	1	3	0
16:45	1	0	4	1	2	0	6	1
17:00	1	1	6	0	3	0	6	0
17:15	0	0	2	0	3	0	4	4
17:30	0	0	6	0	5	1	8	0
17:45	0	0	5	1	4	0	5	0

Location ID: 8
North/South: Lankershim Boulevard / Webb Avenue
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound - Lankershim				*South-Eastbound - Webb*				*Westbound - Strathern*				*Northbound - Lankershim*				*Eastbound - Strathern*				Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	
Movements:	R - Webb	R - Stra	T	L	R	T	L - Stra	L - Lank	R - Lank	R - Webb	T	L	R	T	L - Webb	L - Stra	R	T	L - Lank	L - Webb	
7:00	5	5	157	15	4	43	48	1	42	39	46	14	8	107	17	4	10	64	19	0	648
7:15	5	5	193	24	4	57	75	5	28	59	76	9	10	148	13	5	13	89	17	0	835
7:30	3	10	225	32	4	73	81	1	20	81	100	10	21	204	21	8	20	93	16	0	1023
7:45	6	16	250	42	9	90	84	2	27	72	96	18	8	157	15	7	14	96	16	0	1025
8:00	5	12	217	34	3	67	76	2	31	45	51	14	10	136	16	7	15	107	26	1	875
8:15	4	12	201	72	5	61	64	3	18	27	53	9	11	97	12	6	12	68	20	1	756
8:30	4	6	183	52	2	55	72	1	17	29	44	11	10	99	18	12	12	49	11	0	687
8:45	4	5	180	70	2	43	68	1	25	23	43	10	9	89	15	5	12	61	11	0	676
9:00	4	9	140	48	5	36	70	4	21	26	41	8	9	112	17	5	11	38	9	3	616
9:15	8	6	107	35	5	27	51	1	12	35	29	14	13	100	18	6	14	41	12	0	534
9:30	3	7	124	17	7	33	38	2	21	26	36	13	9	113	24	13	15	49	18	1	569
9:45	9	2	137	14	7	35	33	2	19	34	44	2	6	75	17	10	6	47	18	0	517
Total Volume:	60	95	2114	455	57	620	760	25	281	496	659	132	124	1437	203	88	154	802	193	6	8761
Approach %	2%	3%	78%	17%	4%	42%	52%	2%	18%	32%	42%	8%	7%	78%	11%	5%	13%	69%	17%	1%	
Peak Hr Begin:	7:15																				
PHV	19	43	885	132	20	287	316	10	106	257	323	51	49	645	65	27	62	385	75	1	3758
PHF	0.859				0.855				0.865				0.774				0.878				0.917

	Southbound				*South-Eastbound*				*Westbound*				*Northbound*				*Eastbound*				Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	
Movements:	R - Webb	R - Stra	T	L	R	T	L - Stra	L - Webb	R - Lank	R - Webb	T	L	R	T	L - Webb	L - Stra	R	T	L - Lank	L - Webb	
15:00	4	8	128	26	8	67	85	0	31	68	80	18	11	197	35	8	18	71	21	1	885
15:15	3	9	127	25	12	54	85	2	22	67	82	12	15	128	24	7	13	71	17	2	777
15:30	8	15	165	22	5	51	56	5	30	60	73	15	12	221	20	4	14	48	21	1	846
15:45	15	18	157	25	14	46	45	3	24	53	81	17	9	234	32	7	9	55	16	3	863
16:00	16	13	146	18	9	49	65	6	21	48	78	15	10	230	34	9	8	60	10	1	846
16:15	15	12	189	24	6	53	53	4	18	68	84	16	19	197	21	8	15	63	13	1	879
16:30	11	14	152	25	8	56	59	3	27	69	76	9	7	232	38	8	20	70	18	0	902
16:45	10	13	164	22	8	44	53	4	28	75	78	13	7	229	30	7	17	53	17	2	874
17:00	15	14	188	20	3	48	49	4	24	66	93	11	17	242	29	8	17	69	19	3	939
17:15	8	13	156	25	10	38	69	2	22	77	96	13	17	249	25	11	19	74	13	2	939
17:30	6	9	149	25	9	46	59	5	24	79	98	15	14	227	35	7	9	94	20	2	932
17:45	8	9	146	22	11	43	60	4	25	67	70	20	17	234	36	11	10	57	16	1	867
Total Volume:	119	147	1867	279	103	595	738	42	296	797	989	174	155	2620	359	95	169	785	201	19	10549
Approach %	1190%	6%	77%	12%	7%	40%	50%	3%	13%	35%	44%	8%	5%	81%	11%	3%	14%	67%	17%	2%	
Peak Hr Begin:	16:45																				
PHV	39	49	657	92	30	176	230	15	98	297	365	52	55	947	119	33	62	290	69	9	3684
PHF	0.883				0.947				0.940				0.955				0.860				0.981

	North		North-East		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	3	0	7	1	7	1	8	0
7:15	0	0	4	0	1	0	7	1	6	1
7:30	0	0	3	0	2	0	10	0	7	0
7:45	0	0	2	1	1	0	4	1	1	1
8:00	0	0	3	0	1	0	10	1	8	0
8:15	0	0	1	0	2	1	6	0	8	1
8:30	0	0	2	0	1	1	4	3	5	1
8:45	0	0	5	0	2	0	5	1	8	0
9:00	2	0	1	0	4	1	7	0	12	0
9:15	1	0	2	0	0	0	6	1	8	2
9:30	0	0	0	1	0	0	11	0	16	0
9:45	0	0	1	0	4	1	3	2	4	0

	North		North-East		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	1	0	1	0	8	2	5	0
15:15	0	0	6	1	1	0	5	1	17	2
15:30	0	0	3	0	2	2	11	1	6	2
15:45	0	0	2	0	1	1	4	1	5	0
16:00	0	0	1	0	2	0	11	6	8	2
16:15	0	0	3	3	3	1	5	3	18	1
16:30	0	0	1	1	3	0	8	0	9	0
16:45	0	1	2	0	2	1	9	2	9	0
17:00	0	0	1	2	3	1	2	4	8	1
17:15	0	0	3	0	5	1	2	0	13	1
17:30	0	0	2	0	7	2	6	2	2	0
17:45	0	0	2	0	1	0	2	1	2	0

Turning Movement Count Report AM

Location ID: 9
North/South: Tujunga Avenue
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	5	41	1	5	72	15	24	32	54	31	93	13	386
7:15	15	73	4	5	104	31	16	57	59	51	115	11	541
7:30	24	77	7	5	135	31	33	56	80	55	141	16	660
7:45	14	67	6	11	123	23	36	77	79	54	149	14	653
8:00	14	87	4	2	55	17	26	38	46	64	148	11	512
8:15	7	79	6	2	57	9	11	41	34	78	130	9	463
8:30	2	51	2	3	61	10	14	44	24	53	150	5	419
8:45	6	44	4	4	63	11	14	32	30	52	138	15	413
9:00	9	50	2	6	48	12	8	28	25	39	121	11	359
9:15	8	44	2	4	44	5	12	30	30	27	116	3	325
9:30	10	37	2	2	57	11	13	24	30	26	80	13	305
9:45	4	36	3	5	54	14	19	32	29	22	73	6	297

Total Volume:	118	686	43	54	873	189	226	491	520	552	1454	127	5333
Approach %	14%	81%	5%	5%	78%	17%	18%	40%	42%	26%	68%	6%	

Peak Hr Begin:	7:15												
PHV	67	304	21	23	417	102	111	228	264	224	553	52	2366
PHF	0.907			0.792			0.785			0.929			0.896

Turning Movement Count Report PM

Location ID: 9
North/South: Tujunga Avenue
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	15	66	1	1	104	27	36	65	80	62	97	11	565
15:15	14	43	2	3	109	15	24	43	48	64	121	15	501
15:30	13	67	1	5	117	17	27	55	51	40	91	11	495
15:45	18	47	4	4	93	12	20	60	56	32	89	10	445
16:00	17	63	7	2	106	17	39	67	39	53	86	6	502
16:15	14	53	6	5	122	23	25	53	53	42	107	10	513
16:30	7	64	4	4	115	15	31	71	73	45	80	15	524
16:45	17	60	5	3	111	24	27	49	57	51	93	11	508
17:00	18	87	4	4	119	31	22	77	78	40	88	9	577
17:15	22	70	9	6	127	21	33	69	76	48	102	11	594
17:30	10	74	7	3	133	18	39	75	53	52	105	9	578
17:45	12	55	0	2	112	20	28	85	75	41	88	11	529

Total Volume:	177	749	50	42	1368	240	351	769	739	570	1147	129	6331
Approach %	18%	77%	5%	3%	83%	15%	19%	41%	40%	31%	62%	7%	

Peak Hr Begin:	17:00												
PHV	62	286	20	15	491	90	122	306	282	181	383	40	2278
PHF	0.844			0.968			0.944			0.910			0.959

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	1	0	3	2	0	1
7:15	0	0	0	0	1	1	0	0
7:30	0	0	0	0	2	1	0	0
7:45	0	0	0	0	4	0	0	0
8:00	0	0	0	0	3	0	1	0
8:15	0	0	0	0	0	0	0	0
8:30	0	0	1	0	1	0	0	0
8:45	0	0	0	0	0	0	0	0
9:00	0	0	0	1	0	1	1	0
9:15	0	0	0	0	0	0	2	0
9:30	0	0	1	0	1	0	0	0
9:45	0	0	0	0	0	1	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	0	1	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	1	1	0	0
15:45	0	0	0	0	0	0	1	0
16:00	0	0	0	0	4	0	0	0
16:15	0	0	0	0	4	2	0	0
16:30	0	0	0	0	3	1	0	1
16:45	0	0	0	0	4	1	0	1
17:00	0	0	0	0	1	1	0	0
17:15	1	1	0	0	1	1	1	0
17:30	0	0	0	0	6	1	0	0
17:45	0	0	0	0	3	0	0	0

Turning Movement Count Report AM

Location ID: 10
North/South: Vineland Avenue
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	31	223	9	15	29	20	15	148	19	21	59	39	628
7:15	27	209	17	18	40	29	18	179	31	28	85	40	721
7:30	30	236	16	22	70	38	15	212	33	41	100	43	856
7:45	27	193	20	18	45	21	12	235	34	41	88	51	785
8:00	24	216	12	4	12	11	11	169	23	38	79	48	647
8:15	26	217	10	5	25	4	12	124	10	38	81	48	600
8:30	28	214	5	5	23	11	7	133	18	30	105	31	610
8:45	22	191	9	12	16	7	4	142	20	38	80	41	582
9:00	23	214	7	5	14	7	7	119	17	29	74	35	551
9:15	31	184	8	3	10	5	4	107	12	28	67	37	496
9:30	29	207	11	8	15	7	13	153	20	18	42	51	574
9:45	25	190	19	9	17	9	6	154	17	16	35	37	534

Total Volume:	323	2494	143	124	316	169	124	1875	254	366	895	501	7584
Approach %	11%	84%	5%	20%	52%	28%	6%	83%	11%	21%	51%	28%	

Peak Hr Begin:	7:15												
PHV	108	854	65	62	167	99	56	795	121	148	352	182	3009
PHF	0.910			0.631			0.865			0.927			0.879

Turning Movement Count Report PM

Location ID: 10
North/South: Vineland Avenue
East/West: Strathern Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	41	198	5	8	33	14	12	206	34	29	35	49	664
15:15	26	185	13	12	46	11	11	194	31	30	37	40	636
15:30	55	264	8	9	47	13	11	225	28	31	35	44	770
15:45	36	220	15	12	47	13	8	196	23	27	26	43	666
16:00	56	215	14	10	43	10	8	192	23	23	41	42	677
16:15	44	246	15	8	38	11	7	206	36	27	43	53	734
16:30	52	215	12	10	52	15	11	234	30	21	33	41	726
16:45	41	225	13	10	49	16	9	203	21	28	29	48	692
17:00	51	232	7	10	78	11	6	250	31	25	30	34	765
17:15	62	245	13	11	52	16	10	211	35	33	38	34	760
17:30	60	218	17	10	58	17	15	239	33	16	57	52	792
17:45	52	256	14	16	43	16	6	225	27	24	35	46	760

Total Volume:	576	2719	146	126	586	163	114	2581	352	314	439	526	8642
Approach %	17%	79%	4%	14%	67%	19%	4%	85%	12%	25%	34%	41%	

Peak Hr Begin:	17:00												
PHV	225	951	51	47	231	60	37	925	126	98	160	166	3077
PHF	0.953			0.854			0.948			0.848			0.971

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	1	0	12	0	5	0	8	0
7:15	1	0	1	0	28	1	16	0
7:30	2	0	9	0	25	0	16	1
7:45	1	1	8	1	8	0	8	0
8:00	0	0	6	0	6	0	11	1
8:15	0	0	4	0	6	0	14	0
8:30	0	0	4	0	8	0	10	1
8:45	0	1	4	4	6	2	6	1
9:00	1	0	2	0	1	0	4	0
9:15	0	0	6	0	3	0	13	0
9:30	0	0	4	0	4	0	14	0
9:45	0	0	12	0	5	2	10	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	0	1	4	0	5	0	4	1
15:15	0	0	10	0	4	1	23	1
15:30	0	0	8	0	9	0	27	1
15:45	1	1	8	0	16	0	20	1
16:00	0	0	7	0	10	2	13	0
16:15	0	0	7	0	4	1	7	0
16:30	0	1	4	2	10	1	11	0
16:45	1	4	11	1	6	0	15	2
17:00	0	0	4	0	6	1	17	3
17:15	0	0	8	0	18	1	15	1
17:30	2	1	12	0	18	2	19	3
17:45	0	0	11	1	23	0	27	1

Turning Movement Count Report AM

Location ID: 11
North/South: Lankershim Boulevard
East/West: Stagg Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	9	198	8	7	1	1	8	112	8	15	4	12	383
7:15	6	257	4	14	8	5	5	146	9	13	5	14	486
7:30	9	309	9	27	23	15	9	187	9	18	6	11	632
7:45	14	308	10	21	26	13	5	169	15	17	8	8	614
8:00	13	305	15	12	4	7	5	159	14	20	8	10	572
8:15	4	249	5	7	1	6	6	109	6	14	3	8	418
8:30	11	234	1	4	2	7	5	124	10	11	2	9	420
8:45	19	215	3	8	4	5	4	119	12	8	2	8	407
9:00	7	182	5	10	0	7	2	136	8	9	0	6	372
9:15	7	153	4	6	1	4	7	122	11	4	3	6	328
9:30	5	149	5	12	1	6	10	132	2	6	4	9	341
9:45	2	176	6	4	3	6	3	104	7	11	1	1	324

Total Volume:	106	2735	75	132	74	82	69	1619	111	146	46	102	5297
Approach %	4%	94%	3%	46%	26%	28%	4%	90%	6%	50%	16%	35%	

Peak Hr Begin:	7:15												
PHV	42	1179	38	74	61	40	24	661	47	68	27	43	2304
PHF	0.945			0.673			0.893			0.908			0.911

Turning Movement Count Report PM

Location ID: 11
North/South: Lankershim Boulevard
East/West: Stagg Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	16	187	16	8	10	5	7	244	16	22	1	11	543
15:15	14	182	11	6	10	8	8	189	16	12	5	10	471
15:30	10	200	9	13	5	6	10	242	5	8	4	11	523
15:45	14	195	10	9	5	3	6	283	10	10	1	6	552
16:00	15	186	10	13	5	8	7	290	7	11	5	9	566
16:15	14	239	18	5	2	4	12	253	17	14	3	6	587
16:30	15	210	19	4	5	4	8	281	17	8	3	8	582
16:45	13	220	11	10	5	4	6	260	11	8	0	7	555
17:00	8	231	10	8	2	6	10	321	15	19	8	8	646
17:15	11	207	16	10	1	3	4	272	12	14	2	4	556
17:30	14	185	15	9	5	4	11	268	8	12	6	10	547
17:45	16	180	15	7	4	5	10	310	13	8	6	5	579

Total Volume:	160	2422	160	102	59	60	99	3213	147	146	44	95	6707
Approach %	6%	88%	6%	46%	27%	27%	3%	93%	4%	51%	15%	33%	

Peak Hr Begin:	16:15												
PHV	50	900	58	27	14	18	36	1115	60	49	14	29	2370
PHF	0.930			0.776			0.875			0.657			0.917

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	0	0	5	1	0	0	4	1
7:15	0	0	3	0	1	0	9	0
7:30	1	0	4	0	2	0	4	0
7:45	1	0	4	0	5	0	4	0
8:00	5	0	3	0	2	0	1	0
8:15	3	0	1	0	2	1	5	1
8:30	1	0	4	0	3	0	3	0
8:45	3	0	2	0	2	0	1	0
9:00	3	0	4	0	1	0	10	0
9:15	1	0	2	0	0	0	5	0
9:30	2	0	0	1	5	0	11	0
9:45	2	0	1	0	7	0	3	1

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	2	0	2	0	2	0	3	0
15:15	0	0	1	1	0	0	3	1
15:30	5	0	2	3	5	0	8	1
15:45	1	0	1	1	2	0	5	0
16:00	1	0	1	0	1	0	6	0
16:15	0	0	1	2	1	0	12	0
16:30	0	0	2	0	1	0	4	0
16:45	1	0	1	0	2	0	6	0
17:00	1	0	1	1	3	0	4	0
17:15	1	0	1	1	2	0	4	0
17:30	3	0	1	0	2	0	4	0
17:45	2	0	2	0	1	0	5	0

Turning Movement Count Report AM

Location ID: 13
North/South: Lankershim Boulevard
East/West: Saticoy Street

Date: 10/04/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	32	170	20	12	83	13	6	94	12	27	58	13	540
7:15	31	227	33	17	91	9	19	112	21	28	86	11	685
7:30	29	264	47	28	129	23	12	148	27	36	138	24	905
7:45	35	261	53	34	160	19	11	134	29	45	143	21	945
8:00	23	281	43	30	96	17	13	131	25	48	147	22	876
8:15	20	222	40	15	79	14	9	99	18	24	101	8	649
8:30	19	215	33	24	54	7	14	102	14	26	78	15	601
8:45	17	197	22	8	57	10	10	101	15	25	79	11	552
9:00	22	168	26	13	58	21	9	121	12	23	69	18	560
9:15	17	137	18	17	58	14	8	96	13	14	74	12	478
9:30	11	156	14	10	53	13	18	114	12	19	48	13	481
9:45	25	157	12	12	56	9	6	100	17	21	50	11	476
Total Volume:	281	2455	361	220	974	169	135	1352	215	336	1071	179	7748
Approach %	9%	79%	12%	16%	71%	12%	8%	79%	13%	21%	68%	11%	
Peak Hr Begin:	7:15												
PHV	118	1033	176	109	476	68	55	525	102	157	514	78	3411
PHF	0.951			0.766			0.912			0.863			0.902

Prepared by City Count, LLC. (www.citycount.com)

Turning Movement Count Report PM

Location ID: 13
North/South: Lankershim Boulevard
East/West: Saticoy Street

Date: 10/04/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	26	164	31	25	86	15	7	212	31	21	72	17	707
15:15	24	168	25	31	104	19	6	173	24	17	91	18	700
15:30	22	141	28	18	86	6	9	233	31	29	86	23	712
15:45	23	171	22	18	99	18	9	255	32	27	84	21	779
16:00	18	172	18	14	90	22	8	272	42	23	78	16	773
16:15	26	192	24	22	70	18	11	253	26	21	82	15	760
16:30	22	182	16	18	97	25	21	270	42	27	82	22	824
16:45	22	184	23	23	111	18	16	240	28	21	96	21	803
17:00	38	181	26	28	125	19	10	297	38	32	95	23	912
17:15	36	176	33	27	110	17	12	255	48	28	104	14	860
17:30	11	178	16	18	102	19	19	252	42	36	88	19	800
17:45	19	146	28	21	112	13	10	288	42	39	80	25	823

Total Volume:	287	2055	290	263	1192	209	138	3000	426	321	1038	234	9453
Approach %	11%	78%	11%	16%	72%	13%	4%	84%	12%	20%	65%	15%	

Peak Hr Begin:	16:30												
PHV	118	723	98	96	443	79	59	1062	156	108	377	80	3399
PHF	0.958			0.898			0.925			0.942			0.932

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	4	1	5	1	13	0	2	1
7:15	11	5	6	3	9	0	2	1
7:30	4	0	14	0	16	1	2	2
7:45	5	2	7	1	10	0	1	1
8:00	10	0	9	1	12	1	3	0
8:15	8	0	5	0	12	0	6	0
8:30	4	2	5	1	7	1	3	2
8:45	3	0	1	1	5	0	1	0
9:00	3	0	9	0	8	1	6	0
9:15	2	2	9	0	4	0	1	1
9:30	3	0	5	0	9	0	3	0
9:45	3	0	9	0	2	0	3	1

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	2	2	5	0	4	1	9	0
15:15	5	2	7	1	10	0	2	1
15:30	5	0	4	3	18	0	9	1
15:45	8	1	8	1	7	2	5	3
16:00	6	0	8	0	10	0	8	0
16:15	17	1	12	0	8	0	6	0
16:30	2	1	5	1	7	0	4	0
16:45	6	0	11	1	4	2	9	2
17:00	3	0	4	0	6	0	11	1
17:15	5	0	8	1	7	1	6	6
17:30	2	1	6	0	13	0	11	1
17:45	6	0	10	1	14	0	7	3

Turning Movement Count Report AM

Location ID: 14
North/South: Tujunga Avenue
East/West: Saticoy Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			Totals:
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
7:00	15	110	10	6	47	11	7	66	14	31	49	3	369
7:15	22	159	14	8	61	11	7	82	26	50	72	12	524
7:30	25	170	16	26	92	18	10	120	34	53	124	17	705
7:45	22	169	19	17	99	11	11	152	42	45	153	24	764
8:00	12	146	13	8	62	12	12	79	19	40	110	22	535
8:15	11	161	12	6	53	4	3	58	17	43	79	13	460
8:30	12	107	14	5	28	1	4	55	13	30	77	15	361
8:45	8	114	13	13	39	8	4	56	5	33	66	11	370
9:00	25	95	8	4	52	9	6	49	12	28	66	6	360
9:15	16	75	1	6	45	6	7	47	8	13	67	12	303
9:30	14	78	8	7	45	6	6	45	9	12	58	10	298
9:45	19	66	5	4	41	6	4	58	4	14	52	8	281
Total Volume:	201	1450	133	110	664	103	81	867	203	392	973	153	5330
Approach %	11%	81%	7%	13%	76%	12%	7%	75%	18%	26%	64%	10%	
Peak Hr Begin:	7:15												
PHV	81	644	62	59	314	52	40	433	121	188	459	75	2528
PHF	0.932			0.781			0.724			0.813			0.827

Turning Movement Count Report PM

Location ID: 14
North/South: Tujunga Avenue
East/West: Saticoy Street

Date: 09/27/18
City: Los Angeles, CA

	Southbound			*Westbound*			*Northbound*			*Eastbound*			
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	Totals:
Movements:	R	T	L	R	T	L	R	T	L	R	T	L	
15:00	15	124	11	20	69	6	17	161	37	29	62	11	562
15:15	23	83	14	9	73	12	15	135	37	23	63	13	500
15:30	15	80	14	13	61	7	7	118	36	24	63	14	452
15:45	19	86	6	9	78	6	11	124	22	16	58	17	452
16:00	12	96	10	6	62	4	9	131	31	20	49	18	448
16:15	18	83	10	12	64	9	9	119	28	22	63	15	452
16:30	25	75	14	17	76	5	8	140	34	20	61	22	497
16:45	25	116	9	9	79	10	13	131	45	23	65	16	541
17:00	17	101	13	9	101	10	12	163	45	15	71	19	576
17:15	22	113	11	10	79	9	11	177	36	24	79	26	597
17:30	19	106	8	20	77	8	4	162	40	23	80	16	563
17:45	15	97	6	12	69	3	10	170	43	17	54	27	523

Total Volume:	225	1160	126	146	888	89	126	1731	434	256	768	214	6163
Approach %	15%	77%	8%	13%	79%	8%	5%	76%	19%	21%	62%	17%	

Peak Hr Begin:	16:45												
PHV	83	436	41	48	336	37	40	633	166	85	295	77	2277
PHF	0.933			0.877			0.936			0.886			0.954

Pedestrian/Bicycle Count Report

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
7:00	1	0	2	0	0	0	1	1
7:15	1	1	0	0	1	0	2	0
7:30	2	0	1	1	8	0	8	0
7:45	0	0	1	0	1	0	9	0
8:00	2	0	2	1	0	1	4	0
8:15	0	0	1	0	1	0	2	0
8:30	1	0	0	0	1	1	2	0
8:45	0	0	0	0	1	0	2	1
9:00	0	0	0	0	0	0	0	0
9:15	1	0	1	0	2	0	0	0
9:30	0	0	0	0	0	0	1	0
9:45	0	0	0	1	0	0	0	0

	North		East		South		West	
Leg:	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*	*Peds*	*Bicycle*
15:00	4	0	4	0	0	0	12	0
15:15	2	0	3	0	0	0	10	0
15:30	1	0	4	0	0	1	3	0
15:45	1	1	0	0	0	1	4	2
16:00	0	0	2	1	0	1	5	0
16:15	6	0	5	1	1	3	6	0
16:30	4	0	3	0	1	0	1	0
16:45	1	0	0	1	2	0	0	0
17:00	1	0	1	0	0	1	0	0
17:15	1	0	0	0	0	0	3	0
17:30	1	0	0	0	0	0	3	0
17:45	1	0	1	2	1	0	0	0

Appendix D

LOS Worksheets

AM Peak Hours

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
1	East-West Street:	I-5 NB Ramps	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	327	1	**327**	6	333	**333**	8	352	1	**352**	6	358	1	**358**	0	358	1	**358**
	Left-Through		0							0				0				0	
	Through	434	2	217	4	438	219	8	464	2	232	4	468	2	234	0	468	2	234
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	587	2	**294**	1	588	**294**	1	618	2	**309**	1	619	2	**310**	0	619	2	**310**
	Through-Right		0							0				0				0	
	Right	103	1	103	0	103	103	0	108	1	108	0	108	1	108	0	108	1	108
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	99	0	99	2	101	101	3	107	0	107	2	109	0	109	0	109	0	109
	Left-Through		0							0				0				0	
	Through	0	0	99	0	0	101	0	0	0	107	0	0	0	109	0	0	0	109
	Through-Right		0							0				0				0	
	Right	236	1	**236**	0	236	**236**	0	248	1	**248**	0	248	1	**248**	0	248	1	**248**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	621		*North-South:*	627		*North-South:*		661		*North-South:*		668		*North-South:*		668
			East-West:	236		*East-West:*	236		*East-West:*		248		*East-West:*		248		*East-West:*		248
			SUM:	857		*SUM:*	863		*SUM:*		909		*SUM:*		916		*SUM:*		916
VOLUME/CAPACITY *(V/C)* RATIO:				0.601			0.606				0.638				0.643				0.643
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.501**			**0.506**				**0.538**				**0.543**				**0.543**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	$\Delta v/c$ after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
1	East-West Street:	I-5 NB Ramps	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
No. of Phases			3			3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	327	1	**327**	6	333	**333**	0	327	1	**327**	6	333	1	**333**	0	333	1	**333**
	Left-Through		0							0				0				0	
	Through	434	2	217	4	438	219	0	434	2	217	4	438	2	219	0	438	2	219
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	587	2	**294**	1	588	**294**	0	587	2	**294**	1	588	2	**294**	0	588	2	**294**
	Through-Right		0							0				0				0	
	Right	103	1	103	0	103	103	0	103	1	103	0	103	1	103	0	103	1	103
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	99	0	99	2	101	101	0	99	0	99	2	101	0	101	0	101	0	101
	Left-Through		0							0				0				0	
	Through	0	0	99	0	0	101	0	0	0	99	0	0	0	101	0	0	0	101
	Through-Right		0							0				0				0	
	Right	236	1	**236**	0	236	**236**	0	236	1	**236**	0	236	1	**236**	0	236	1	**236**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	621		*North-South:*	627		*North-South:*		621		*North-South:*		627		*North-South:*		627
			East-West:	236		*East-West:*	236		*East-West:*		236		*East-West:*		236		*East-West:*		236
			SUM:	857		*SUM:*	863		*SUM:*		857		*SUM:*		863		*SUM:*		863
	VOLUME/CAPACITY *(V/C)* RATIO:			0.601			0.606				0.601				0.606				0.606
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.501**			**0.506**				**0.501**				**0.506**				**0.506**
	LEVEL OF SERVICE (LOS):			**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	$\Delta v/c$ after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	I-5 SB Ramps/Cayuga Ave	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	8	1	8	8	16	16	11	19	1	19	8	27	1	27	0	27	1	27
	Left-Through		0							0				0				0	
	Through	630	2	**315**	10	640	**320**	15	677	2	**339**	10	687	2	**344**	0	687	2	**344**
	Through-Right		0							0				0				0	
	Right	7	1	7	0	7	7	0	7	1	7	0	7	1	7	0	7	1	7
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	7	1	**7**	0	7	**7**	0	7	1	**7**	0	7	1	**7**	0	7	1	**7**
	Left-Through		0							0				0				0	
	Through	565	2	283	3	568	284	4	598	2	299	3	601	2	301	0	601	2	301
	Through-Right		0							0				0				0	
	Right	86	1	86	0	86	86	0	90	1	90	0	90	1	90	0	90	1	90
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	111	0	111	0	111	111	0	117	0	117	0	117	0	117	0	117	0	117
	Left-Through		0							0				0				0	
	Through	46	0	157	0	46	157	0	48	0	165	0	48	0	165	0	48	0	165
	Through-Right		0							0				0				0	
	Right	558	1	**554**	1	559	**551**	1	587	1	**578**	1	588	1	**575**	0	588	1	**575**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	1	0	**1**	0	1	**1**	0	1	0	**1**	0	1	0	**1**	0	1	0	**1**
	Left-Through		0							0				0				0	
	Through	1	0	20	0	1	20	0	1	0	21	0	1	0	21	0	1	0	21
	Through-Right		0							0				0				0	
	Right	18	0	0	0	18	0	0	19	0	0	0	19	0	0	0	19	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		322	*North-South:*		327	*North-South:*			346	*North-South:*			351	*North-South:*			351
		East-West:		555	*East-West:*		552	*East-West:*			579	*East-West:*			576	*East-West:*			576
		SUM:		877	*SUM:*		879	*SUM:*			925	*SUM:*			927	*SUM:*			927
VOLUME/CAPACITY *(V/C)* RATIO:				0.585			0.586				0.617				0.618				0.618
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.485**			**0.486**				**0.517**				**0.518**				**0.518**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	$\Delta v/c$ after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	I-5 SB Ramps/Cayuga Ave	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	8	1	8	8	16	16	0	8	1	8	8	16	1	16	0	16	1	16
	Left-Through		0							0				0				0	
	Through	630	2	**315**	10	640	**320**	0	630	2	**315**	10	640	2	**320**	0	640	2	**320**
	Through-Right		0							0				0				0	
	Right	7	1	7	0	7	7	0	7	1	7	0	7	1	7	0	7	1	7
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	7	1	**7**	0	7	**7**	0	7	1	**7**	0	7	1	**7**	0	7	1	**7**
	Left-Through		0							0				0				0	
	Through	565	2	283	3	568	284	0	565	2	283	3	568	2	284	0	568	2	284
	Through-Right		0							0				0				0	
	Right	86	1	86	0	86	86	0	86	1	86	0	86	1	86	0	86	1	86
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	111	0	111	0	111	111	0	111	0	111	0	111	0	111	0	111	0	111
	Left-Through		0							0				0				0	
	Through	46	0	157	0	46	157	0	46	0	157	0	46	0	157	0	46	0	157
	Through-Right		0							0				0				0	
	Right	558	1	**554**	1	559	**551**	0	558	1	**554**	1	559	1	**551**	0	559	1	**551**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	1	0	**1**	0	1	**1**	0	1	0	**1**	0	1	0	**1**	0	1	0	**1**
	Left-Through		0							0				0				0	
	Through	1	0	20	0	1	20	0	1	0	20	0	1	0	20	0	1	0	20
	Through-Right		0							0				0				0	
	Right	18	0	0	0	18	0	0	18	0	0	0	18	0	0	0	18	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	322		*North-South:*	327		*North-South:*	322			*North-South:*	327			*North-South:*	327	
			East-West:	555		*East-West:*	552		*East-West:*	555			*East-West:*	552			*East-West:*	552	
			SUM:	877		*SUM:*	879		*SUM:*	877			*SUM:*	879			*SUM:*	879	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.585			0.586			0.585				0.586				0.586	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.485			0.486			0.485				0.486				0.486	
	LEVEL OF SERVICE (LOS):			A			A			A				A				A	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.001	$\Delta v/c$ after mitigation:	0.001
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Roscoe Blvd	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	262	1	**262**	7	269	**269**	6	281	1	**281**	7	288	1	**288**	0	288	1	**288**
	Left-Through		0							0				0				0	
	Through	357	2	179	4	361	181	2	377	2	189	4	381	2	191	0	381	2	191
	Through-Right		0							0				0				0	
	Right	131	1	76	0	131	75	0	138	1	80	0	138	1	79	0	138	1	79
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	84	1	84	0	84	84	0	88	1	88	0	88	1	88	0	88	1	88
	Left-Through		0							0				0				0	
	Through	566	2	**283**	8	574	**287**	10	605	2	**303**	8	613	2	**307**	0	613	2	**307**
	Through-Right		0							0				0				0	
	Right	44	1	13	0	44	13	0	46	1	13	0	46	1	13	0	46	1	13
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	63	1	63	0	63	63	0	66	1	66	0	66	1	66	0	66	1	66
	Left-Through		0							0				0				0	
	Through	934	2	**467**	2	936	**468**	0	982	2	**491**	2	984	2	**492**	0	984	2	**492**
	Through-Right		0							0				0				0	
	Right	175	1	44	6	181	47	0	184	1	44	6	190	1	46	0	190	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	111	1	**111**	1	112	**112**	0	117	1	**117**	1	118	1	**118**	0	118	1	**118**
	Left-Through		0							0				0				0	
	Through	805	2	403	13	818	409	0	846	2	423	13	859	2	430	-1	858	2	429
	Through-Right		0							0				0				0	
	Right	39	1	0	0	39	0	0	41	1	0	0	41	1	0	0	41	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	545		*North-South:*	556		*North-South:*		584		*North-South:*		595		*North-South:*		595
			East-West:	578		*East-West:*	580		*East-West:*		608		*East-West:*		610		*East-West:*		610
			SUM:	1123		*SUM:*	1136		*SUM:*		1192		*SUM:*		1205		*SUM:*		1205
VOLUME/CAPACITY *(V/C)* RATIO:				0.817			0.826				0.867				0.876				0.876
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.717**			**0.726**				**0.767**				**0.776**				**0.776**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.009	∆*v/c* after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Roscoe Blvd	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	262	1	**262**	7	269	**269**	0	262	1	**262**	7	269	1	**269**	0	269	1	**269**
	Left-Through		0							0				0				0	
	Through	357	2	179	4	361	181	0	357	2	179	4	361	2	181	0	361	2	181
	Through-Right		0							0				0				0	
	Right	131	1	76	0	131	75	0	131	1	76	0	131	1	75	0	131	1	75
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	84	1	84	0	84	84	0	84	1	84	0	84	1	84	0	84	1	84
	Left-Through		0							0				0				0	
	Through	566	2	**283**	8	574	**287**	0	566	2	**283**	8	574	2	**287**	0	574	2	**287**
	Through-Right		0							0				0				0	
	Right	44	1	13	0	44	13	0	44	1	13	0	44	1	13	0	44	1	13
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	63	1	63	0	63	63	0	63	1	63	0	63	1	63	0	63	1	63
	Left-Through		0							0				0				0	
	Through	934	2	**467**	2	936	**468**	0	934	2	**467**	2	936	2	**468**	0	936	2	**468**
	Through-Right		0							0				0				0	
	Right	175	1	44	6	181	47	0	175	1	44	6	181	1	47	0	181	1	47
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	111	1	**111**	1	112	**112**	0	111	1	**111**	1	112	1	**112**	0	112	1	**112**
	Left-Through		0							0				0				0	
	Through	805	2	403	13	818	409	0	805	2	403	13	818	2	409	-1	817	2	409
	Through-Right		0							0				0				0	
	Right	39	1	0	0	39	0	0	39	1	0	0	39	1	0	0	39	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		545	*North-South:*		556	*North-South:*			545	*North-South:*			556	*North-South:*			556
		East-West:		578	*East-West:*		580	*East-West:*			578	*East-West:*			580	*East-West:*			580
		SUM:		1123	*SUM:*		1136	*SUM:*			1123	*SUM:*			1136	*SUM:*			1136
VOLUME/CAPACITY *(V/C)* RATIO:				0.817			0.826				0.817				0.826				0.826
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.717**			**0.726**				**0.717**				**0.726**				**0.726**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.009	∆*v/c* after mitigation:	0.009
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Webb Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	Roscoe Blvd	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 1	SB--	1	NB-- 1	SB--	1	NB--	1	SB--	1	NB--	1	SB--	1	NB--	1	SB--	1	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	158	1	**158**	8	166	**166**	0	166	1	**166**	8	174	1	**174**	0	174	1	**174**
	Left-Through		0							0				0				0	
	Through	216	2	108	0	216	108	8	235	2	118	0	235	2	118	0	235	2	118
	Through-Right		0							0				0				0	
	Right	57	1	0	0	57	0	0	60	1	0	0	60	1	0	0	60	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	103	1	103	0	103	103	0	108	1	108	0	108	1	108	0	108	1	108
	Left-Through		0							0				0				0	
	Through	406	2	**203**	0	406	**203**	0	427	2	**214**	0	427	2	**214**	0	427	2	**214**
	Through-Right		0							0				0				0	
	Right	64	1	0	0	64	0	0	67	1	0	0	67	1	0	0	67	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	18	1	18	0	18	18	0	19	1	19	0	19	1	19	0	19	1	19
	Left-Through		0							0				0				0	
	Through	874	2	**437**	0	874	**437**	0	919	2	**460**	0	919	2	**460**	0	919	2	**460**
	Through-Right		0							0				0				0	
	Right	252	1	173	2	254	171	0	265	1	182	2	267	1	180	0	267	1	180
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	42	1	**42**	0	42	**42**	0	44	1	**44**	0	44	1	**44**	0	44	1	**44**
	Left-Through		0							0				0				0	
	Through	716	2	358	6	722	361	0	753	2	377	6	759	2	380	0	759	2	380
	Through-Right		0							0				0				0	
	Right	52	1	1	0	52	1	0	55	1	1	0	55	1	1	0	55	1	1
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		361	North-South:		369	North-South:			380	North-South:			388	North-South:			388
		East-West:		479	East-West:		479	East-West:			504	East-West:			504	East-West:			504
		SUM:		840	SUM:		848	SUM:			884	SUM:			892	SUM:			892
VOLUME/CAPACITY (*V/C*) RATIO:				0.560			0.565				0.589				0.595				0.595
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.460**			**0.465**				**0.489**				**0.495**				**0.495**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	Δ*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Webb Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	Roscoe Blvd	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 1	SB--	1	NB-- 1	SB--	1	NB--	1	SB--	1	NB--	1	SB--	1	NB--	1	SB--	1	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	158	1	**158**	8	166	**166**	0	158	1	**158**	8	166	1	**166**	0	166	1	**166**
	Left-Through		0							0				0				0	
	Through	216	2	108	0	216	108	0	216	2	108	0	216	2	108	0	216	2	108
	Through-Right		0							0				0				0	
	Right	57	1	0	0	57	0	0	57	1	0	0	57	1	0	0	57	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	103	1	103	0	103	103	0	103	1	103	0	103	1	103	0	103	1	103
	Left-Through		0							0				0				0	
	Through	406	2	**203**	0	406	**203**	0	406	2	**203**	0	406	2	**203**	0	406	2	**203**
	Through-Right		0							0				0				0	
	Right	64	1	0	0	64	0	0	64	1	0	0	64	1	0	0	64	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	18	1	18	0	18	18	0	18	1	18	0	18	1	18	0	18	1	18
	Left-Through		0							0				0				0	
	Through	874	2	**437**	0	874	**437**	0	874	2	**437**	0	874	2	**437**	0	874	2	**437**
	Through-Right		0							0				0				0	
	Right	252	1	173	2	254	171	0	252	1	173	2	254	1	171	0	254	1	171
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	42	1	**42**	0	42	**42**	0	42	1	**42**	0	42	1	**42**	0	42	1	**42**
	Left-Through		0							0				0				0	
	Through	716	2	358	6	722	361	0	716	2	358	6	722	2	361	0	722	2	361
	Through-Right		0							0				0				0	
	Right	52	1	1	0	52	1	0	52	1	1	0	52	1	1	0	52	1	1
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		361	North-South:		369	North-South:			361	North-South:			369	North-South:			369
		East-West:		479	East-West:		479	East-West:			479	East-West:			479	East-West:			479
		SUM:		840	SUM:		848	SUM:			840	SUM:			848	SUM:			848
VOLUME/CAPACITY (*V/C*) RATIO:				0.560			0.565				0.560				0.565				0.565
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.460**			**0.465**				**0.460**				**0.465**				**0.465**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	Δ*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
5	East-West Street:	Roscoe Blvd/Tuxford St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	69	1	**69**	5	74	**74**	0	73	1	**73**	5	78	1	**78**	0	78	1	**78**
	Left-Through		0							0				0				0	
	Through	568	2	284	18	586	293	27	624	2	312	18	642	2	321	-1	641	2	321
	Through-Right		0							0				0				0	
	Right	267	1	161	8	275	168	0	281	1	169	8	289	1	177	0	289	1	177
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	56	1	56	0	56	56	0	59	1	59	0	59	1	59	0	59	1	59
	Left-Through		0							0				0				0	
	Through	896	2	**448**	4	900	**450**	4	946	2	**473**	4	950	2	**475**	0	950	2	**475**
	Through-Right		0							0				0				0	
	Right	53	1	10	0	53	10	0	56	1	11	0	56	1	11	0	56	1	11
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	87	1	87	0	87	87	0	91	1	91	0	91	1	91	0	91	1	91
	Left-Through		0							0				0				0	
	Through	897	2	**449**	0	897	**449**	0	943	2	**472**	0	943	2	**472**	0	943	2	**472**
	Through-Right		0							0				0				0	
	Right	65	1	0	0	65	0	0	68	1	0	0	68	1	0	0	68	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	213	1	**213**	1	214	**214**	0	224	1	**224**	1	225	1	**225**	0	225	1	**225**
	Left-Through		0							0				0				0	
	Through	692	2	346	1	693	347	0	727	2	364	1	728	2	364	0	728	2	364
	Through-Right		0							0				0				0	
	Right	38	1	0	0	38	0	0	40	1	0	0	40	1	0	0	40	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		517	*North-South:*		524	*North-South:*			546	*North-South:*			553	*North-South:*			553
		East-West:		662	*East-West:*		663	*East-West:*			696	*East-West:*			697	*East-West:*			697
		SUM:		1179	*SUM:*		1187	*SUM:*			1242	*SUM:*			1250	*SUM:*			1250
VOLUME/CAPACITY *(V/C)* RATIO:				0.857			0.863				0.903				0.909				0.909
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.757**			**0.763**				**0.803**				**0.809**				**0.809**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	∆*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
5	East-West Street:	Roscoe Blvd/Tuxford St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
No. of Phases			4			4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--			0	NB-- 0 SB--			0	NB-- 0 SB--			0
	EB-- 1 WB--		1	EB-- 1 WB--		1	EB-- 1 WB--			1	EB-- 1 WB--			1	EB-- 1 WB--			1
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0
NORTHBOUND																		
Left	69	1	**69**	5	74	**74**	0	69	1	**69**	5	74	1	**74**	0	74	1	**74**
Left-Through		0							0				0				0	
Through	568	2	284	18	586	293	0	568	2	284	18	586	2	293	-1	585	2	293
Through-Right		0							0				0				0	
Right	267	1	161	8	275	168	0	267	1	161	8	275	1	168	0	275	1	168
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
SOUTHBOUND																		
Left	56	1	56	0	56	56	0	56	1	56	0	56	1	56	0	56	1	56
Left-Through		0							0				0				0	
Through	896	2	**448**	4	900	**450**	0	896	2	**448**	4	900	2	**450**	0	900	2	**450**
Through-Right		0							0				0				0	
Right	53	1	10	0	53	10	0	53	1	10	0	53	1	10	0	53	1	10
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
EASTBOUND																		
Left	87	1	87	0	87	87	0	87	1	87	0	87	1	87	0	87	1	87
Left-Through		0							0				0				0	
Through	897	2	**449**	0	897	**449**	0	897	2	**449**	0	897	2	**449**	0	897	2	**449**
Through-Right		0							0				0				0	
Right	65	1	0	0	65	0	0	65	1	0	0	65	1	0	0	65	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
WESTBOUND																		
Left	213	1	**213**	1	214	**214**	0	213	1	**213**	1	214	1	**214**	0	214	1	**214**
Left-Through		0							0				0				0	
Through	692	2	346	1	693	347	0	692	2	346	1	693	2	347	0	693	2	347
Through-Right		0							0				0				0	
Right	38	1	0	0	38	0	0	38	1	0	0	38	1	0	0	38	1	0
Left-Through-Right		0							0				0				0	
Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*		517	*North-South:*		524	*North-South:*			517	*North-South:*			524	*North-South:*			524
	East-West:		662	*East-West:*		663	*East-West:*			662	*East-West:*			663	*East-West:*			663
	SUM:		1179	*SUM:*		1187	*SUM:*			1179	*SUM:*			1187	*SUM:*			1187
VOLUME/CAPACITY *(V/C)* RATIO:			0.857			0.863				0.857				0.863				0.863
V/C LESS ATSAC/ATCS ADJUSTMENT:			0.757			0.763				0.757				0.763				0.763
LEVEL OF SERVICE (LOS):			C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	Δ*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Strathern St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	57	1	**57**	0	57	**57**	4	64	1	**64**	0	64	1	**64**	0	64	1	**64**
	Left-Through		0							0				0				0	
	Through	543	2	272	0	543	272	6	577	2	289	0	577	2	289	0	577	2	289
	Through-Right		0							0				0				0	
	Right	46	1	12	0	46	4	0	48	1	12	0	48	1	4	0	48	1	4
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	86	1	86	5	91	91	0	90	1	90	5	95	1	95	0	95	1	95
	Left-Through		0							0				0				0	
	Through	696	2	**348**	10	706	**353**	1	733	2	**367**	10	743	2	**372**	0	743	2	**372**
	Through-Right		0							0				0				0	
	Right	89	1	35	0	89	35	9	103	1	45	0	103	1	45	0	103	1	45
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	109	1	**109**	0	109	**109**	2	117	1	**117**	0	117	1	**117**	0	117	1	**117**
	Left-Through		0							0				0				0	
	Through	384	1	384	5	389	389	11	415	1	415	5	420	1	420	0	420	1	420
	Through-Right		0							0				0				0	
	Right	101	1	73	4	105	77	4	110	1	78	4	114	1	82	0	114	1	82
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	69	1	69	16	85	85	0	73	1	73	16	89	1	89	0	89	1	89
	Left-Through		0							0				0				0	
	Through	377	1	**377**	17	394	**394**	15	411	1	**411**	17	428	1	**428**	-1	427	1	**427**
	Through-Right		0							0				0				0	
	Right	111	1	68	11	122	77	0	117	1	72	11	128	1	81	0	128	1	81
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		405	*North-South:*		410	*North-South:*			431	*North-South:*			436	*North-South:*			436
		East-West:		486	*East-West:*		503	*East-West:*			528	*East-West:*			545	*East-West:*			544
		SUM:		891	*SUM:*		913	*SUM:*			959	*SUM:*			981	*SUM:*			980
VOLUME/CAPACITY *(V/C)* RATIO:				0.594			0.609				0.639				0.654				0.653
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.494**			**0.509**				**0.539**				**0.554**				**0.553**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	Δ*v/c* after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Strathern St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	57	1	**57**	0	57	**57**	0	57	1	**57**	0	57	1	**57**	0	57	1	**57**
	Left-Through		0							0				0				0	
	Through	543	2	272	0	543	272	0	543	2	272	0	543	2	272	0	543	2	272
	Through-Right		0							0				0				0	
	Right	46	1	12	0	46	4	0	46	1	12	0	46	1	4	0	46	1	4
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	86	1	86	5	91	91	0	86	1	86	5	91	1	91	0	91	1	91
	Left-Through		0							0				0				0	
	Through	696	2	**348**	10	706	**353**	0	696	2	**348**	10	706	2	**353**	0	706	2	**353**
	Through-Right		0							0				0				0	
	Right	89	1	35	0	89	35	0	89	1	35	0	89	1	35	0	89	1	35
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	109	1	**109**	0	109	**109**	0	109	1	**109**	0	109	1	**109**	0	109	1	**109**
	Left-Through		0							0				0				0	
	Through	384	1	384	5	389	389	0	384	1	384	5	389	1	389	0	389	1	389
	Through-Right		0							0				0				0	
	Right	101	1	73	4	105	77	0	101	1	73	4	105	1	77	0	105	1	77
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	69	1	69	16	85	85	0	69	1	69	16	85	1	85	0	85	1	85
	Left-Through		0							0				0				0	
	Through	377	1	**377**	17	394	**394**	0	377	1	**377**	17	394	1	**394**	-1	393	1	**393**
	Through-Right		0							0				0				0	
	Right	111	1	68	11	122	77	0	111	1	68	11	122	1	77	0	122	1	77
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	405		*North-South:*	410		*North-South:*		405		*North-South:*		410		*North-South:*		410
			East-West:	486		*East-West:*	503		*East-West:*		486		*East-West:*		503		*East-West:*		502
			SUM:	891		*SUM:*	913		*SUM:*		891		*SUM:*		913		*SUM:*		912
VOLUME/CAPACITY *(V/C)* RATIO:				0.594			0.609				0.594				0.609				0.608
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.494**			**0.509**				**0.494**				**0.509**				**0.508**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

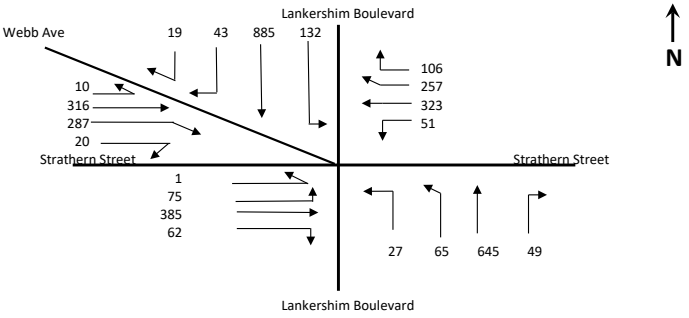
Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	$\Delta v/c$ after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Existing Conditions (Year 2018) - AM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:
27 + 65 = 92 and

Southbound Through + Southbound Right To Strathern:
$\frac{43 + 885}{2}$ = 464 or

Southbound Right To Webb:
$\frac{19}{1}$ = 19

Southbound Left:
$\frac{132}{1}$ = 132 and

Northbound Through: or
$\frac{645}{2}$ = 323

Northbound Right:
$\frac{49}{1}$ = 49

Critical Volume #1 (CV1): **556**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:
$\frac{1 + 75}{1}$ = 76 and

Westbound Through:
$\frac{323}{1}$ = 323 or

Westbound Slight Right to Webb and Right to Lankershim:
$\frac{257 + 106}{1}$ = 363

Westbound Left:
$\frac{51}{1}$ = 51 and

Eastbound Through:
$\frac{385}{1}$ = 385 or

Eastbound Right:
$\frac{62}{1}$ = 62

Critical Volume #2 (CV2): **439**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:
$\frac{316 + 10}{1}$ = 326

Slight Right to Lankershim:
$\frac{287}{1}$ = 287 or

Sharp Right To Strathern:
$\frac{20}{1}$ = 20

Critical Volume #3 (CV3): **326**

Critical Volume: 556 + 439 + 326 = **1321**

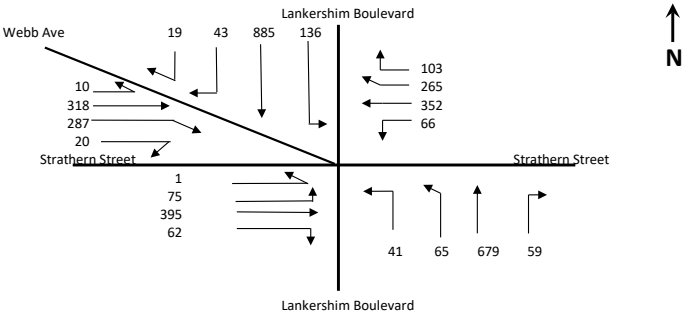
Intersection V/C: $\frac{1321}{1425}$ = **0.927** (3-phase)

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.827 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Existing with Project Conditions (Year 2018) - AM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

41 + 65 = 106 and

Southbound Through + Southbound Right To Strathern:

$\frac{43 + 885}{2} = 464$ or

Southbound Right To Webb:

$\frac{19}{1} = 19$

Southbound Left:

$\frac{136}{1} = 136$ and

Northbound Through: or

$\frac{679}{2} = 340$

Northbound Right:

$\frac{59}{1} = 59$

Critical Volume #1 (CV1): **570**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

$\frac{1 + 75}{1} = 76$ and

Westbound Through:

$\frac{352}{1} = 352$ or

Westbound Slight Right to Webb and Right to Lankershim:

$\frac{265 + 103}{1} = 368$

Westbound Left:

$\frac{66}{1} = 66$ and

Eastbound Through:

$\frac{395}{1} = 395$ or

Eastbound Right:

$\frac{62}{1} = 62$

Critical Volume #2 (CV2): **461**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

$\frac{318 + 10}{1} = 328$

Slight Right to Lankershim:

$\frac{287}{1} = 287$ or

Sharp Right To Strathern:

$\frac{20}{1} = 20$

Critical Volume #3 (CV3): **328**

Critical Volume: 570 + 461 + 328 = **1359**

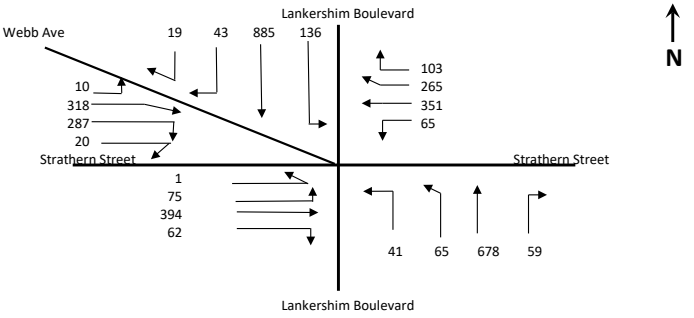
Intersection V/C: $\frac{1359}{1425}$ (3-phase) = **0.954**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.854 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

EP With Mitigation - AM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

41 + 65 = 106 and

Southbound Through + Southbound Right To Strathern:

(43 + 885) / 2 = 464 or

Southbound Right To Webb:

19 / 1 = 19

Southbound Left:

136 / 1 = 136 and

Northbound Through: or

678 / 2 = 339

Northbound Right:

59 / 1 = 59

Critical Volume #1 (CV1): **570**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

(1 + 75) / 1 = 76 and

Westbound Through:

351 / 1 = 351 or

Westbound Slight Right to Webb and Right to Lankershim:

(265 + 103) / 1 = 368

Westbound Left:

65 / 1 = 65 and

Eastbound Through:

394 / 1 = 394 or

Eastbound Right:

62 / 1 = 62

Critical Volume #2 (CV2): **459**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

(318 + 10) / 1 = 328

Slight Right to Lankershim:

287 / 1 = 287 or

Sharp Right To Strathern:

20 / 1 = 20

Critical Volume #3 (CV3): **328**

Critical Volume: 570 + 459 + 328 = **1357**

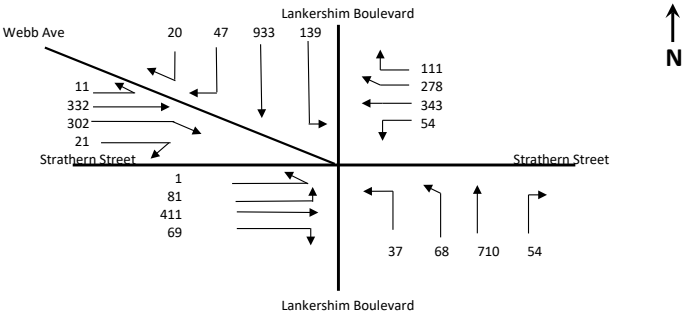
Intersection V/C: 1357 / 1425 (3-phase) = **0.952**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.852 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Future without Project Conditions (Year 2023) - AM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

37 + 68 = 105 and

Southbound Through + Southbound Right To Strathern:

(47 + 933) / 2 = 490 or

Southbound Right To Webb:

20 / 1 = 20

Southbound Left:

139 / 1 = 139 and

Northbound Through: or

710 / 2 = 355

Northbound Right:

54 / 1 = 54

Critical Volume #1 (CV1): **595**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

(1 + 81) / 1 = 82 and

Westbound Through:

343 / 1 = 343 or

Westbound Slight Right to Webb and Right to Lankershim:

(278 + 111) / 1 = 389

Westbound Left:

54 / 1 = 54 and

Eastbound Through:

411 / 1 = 411 or

Eastbound Right:

69 / 1 = 69

Critical Volume #2 (CV2): **471**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

(332 + 11) / 1 = 343

Slight Right to Lankershim:

302 / 1 = 302 or

Sharp Right To Strathern:

21 / 1 = 21

Critical Volume #3 (CV3): **343**

Critical Volume: 595 + 471 + 343 = **1409**

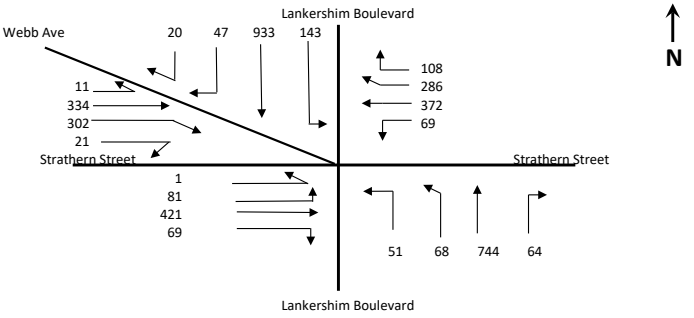
Intersection V/C: 1409 / 1425 (3-phase) = **0.989**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.889 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Future with Project Conditions (Year 2023) - AM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

51 + 68 = 119 and

Southbound Through + Southbound Right To Strathern:

$\frac{47 + 933}{2}$ = 490 or

Southbound Right To Webb:

$\frac{20}{1}$ = 20

Southbound Left:

$\frac{143}{1}$ = 143 and

Northbound Through: or

$\frac{744}{2}$ = 372

Northbound Right:

$\frac{64}{1}$ = 64

Critical Volume #1 (CV1): **609**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

$\frac{1 + 81}{1}$ = 82 and

Westbound Through:

$\frac{372}{1}$ = 372 or

Westbound Slight Right to Webb and Right to Lankershim:

$\frac{286 + 108}{1}$ = 394

Westbound Left:

$\frac{69}{1}$ = 69 and

Eastbound Through:

$\frac{421}{1}$ = 421 or

Eastbound Right:

$\frac{69}{1}$ = 69

Critical Volume #2 (CV2): **490**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

$\frac{334 + 11}{1}$ = 345

Slight Right to Lankershim:

$\frac{302}{1}$ = 302 or

Sharp Right To Strathern:

$\frac{21}{1}$ = 21

Critical Volume #3 (CV3): **345**

Critical Volume: 609 + 490 + 345 = **1444**

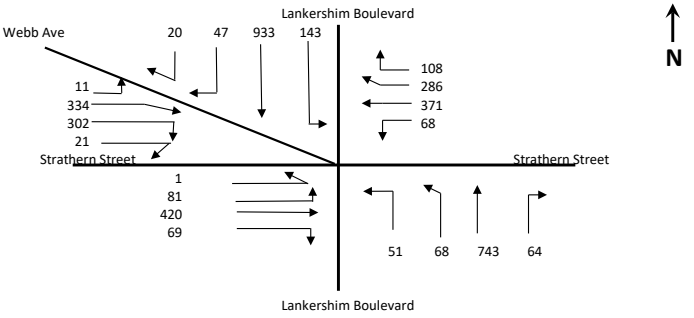
Intersection V/C: $\frac{1444}{1425}$ = **1.013** (3-phase)

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.913 **Intersection LOS: E**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

FP With Mitigation - AM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

51 + 68 = 119 and

Southbound Through + Southbound Right To Strathern:

(47 + 933) / 2 = 490 or

Southbound Right To Webb:

20 / 1 = 20

Southbound Left:

143 / 1 = 143 and

Northbound Through: or

743 / 2 = 372

Northbound Right:

64 / 1 = 64

Critical Volume #1 (CV1): **609**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

(1 + 81) / 1 = 82 and

Westbound Through:

371 / 1 = 371 or

Westbound Slight Right to Webb and Right to Lankershim:

(286 + 108) / 1 = 394

Westbound Left:

68 / 1 = 68 and

Eastbound Through:

420 / 1 = 420 or

Eastbound Right:

69 / 1 = 69

Critical Volume #2 (CV2): **488**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

(334 + 11) / 1 = 345

Slight Right to Lankershim:

302 / 1 = 302 or

Sharp Right To Strathern:

21 / 1 = 21

Critical Volume #3 (CV3): **345**

Critical Volume: 609 + 488 + 345 = **1442**

Intersection V/C: 1442 / 1425 (3-phase) = **1.012**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.912 **Intersection LOS: E**

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
8	East-West Street:	Strathern St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	264	1	**264**	3	267	**267**	0	277	1	**277**	3	280	1	**280**	0	280	1	**280**
	Left-Through		0							0				0				0	
	Through	228	1	228	0	228	228	0	240	1	240	0	240	1	240	0	240	1	240
	Through-Right		0							0				0				0	
	Right	111	1	60	0	111	60	0	117	1	64	0	117	1	64	0	117	1	64
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	1	22
	Left-Through		0							0				0				0	
	Through	304	0	**371**	0	304	**371**	0	320	0	**390**	0	320	0	**390**	0	320	0	**390**
	Through-Right		1							1				1				1	
	Right	67	0	0	0	67	0	0	70	0	0	0	70	0	0	0	70	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	52	1	52	0	52	52	0	55	1	55	0	55	1	55	0	55	1	55
	Left-Through		0							0				0				0	
	Through	553	1	**553**	24	577	**577**	9	590	1	**590**	24	614	1	**614**	-1	613	1	**613**
	Through-Right		0							0				0				0	
	Right	224	1	92	13	237	104	0	235	1	97	13	248	1	108	-1	247	1	107
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	102	1	**102**	0	102	**102**	0	107	1	**107**	0	107	1	**107**	0	107	1	**107**
	Left-Through		0							0				0				0	
	Through	417	0	440	7	424	447	4	442	0	466	7	449	0	473	0	449	0	473
	Through-Right		1							1				1				1	
	Right	23	0	0	0	23	0	0	24	0	0	0	24	0	0	0	24	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		635	North-South:		638	North-South:			667	North-South:			670	North-South:			670
		East-West:		655	East-West:		679	East-West:			697	East-West:			721	East-West:			720
		SUM:		1290	SUM:		1317	SUM:			1364	SUM:			1391	SUM:			1390
VOLUME/CAPACITY (*V/C*) RATIO:				0.860			0.878				0.909				0.927				0.927
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.760**			**0.778**				**0.809**				**0.827**				**0.827**
LEVEL OF SERVICE (LOS):				**C**			**C**				**D**				**D**				**D**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.018	Δ*v/c* after mitigation:	0.018
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
8	East-West Street:	Strathern St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	264	1	**264**	3	267	**267**	0	264	1	**264**	3	267	1	**267**	0	267	1	**267**
	Left-Through		0							0				0				0	
	Through	228	1	228	0	228	228	0	228	1	228	0	228	1	228	0	228	1	228
	Through-Right		0							0				0				0	
	Right	111	1	60	0	111	60	0	111	1	60	0	111	1	60	0	111	1	60
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	21	1	21	0	21	21	0	21	1	21	0	21	1	21	0	21	1	21
	Left-Through		0							0				0				0	
	Through	304	0	**371**	0	304	**371**	0	304	0	**371**	0	304	0	**371**	0	304	0	**371**
	Through-Right		1							1				1				1	
	Right	67	0	0	0	67	0	0	67	0	0	0	67	0	0	0	67	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	52	1	52	0	52	52	0	52	1	52	0	52	1	52	0	52	1	52
	Left-Through		0							0				0				0	
	Through	553	1	**553**	24	577	**577**	0	553	1	**553**	24	577	1	**577**	-1	576	1	**576**
	Through-Right		0							0				0				0	
	Right	224	1	92	13	237	104	0	224	1	92	13	237	1	104	-1	236	1	103
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	102	1	**102**	0	102	**102**	0	102	1	**102**	0	102	1	**102**	0	102	1	**102**
	Left-Through		0							0				0				0	
	Through	417	0	440	7	424	447	0	417	0	440	7	424	0	447	0	424	0	447
	Through-Right		1							1				1				1	
	Right	23	0	0	0	23	0	0	23	0	0	0	23	0	0	0	23	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		635	*North-South:*		638	*North-South:*			635	*North-South:*			638	*North-South:*			638
		East-West:		655	*East-West:*		679	*East-West:*			655	*East-West:*			679	*East-West:*			678
		SUM:		1290	*SUM:*		1317	*SUM:*			1290	*SUM:*			1317	*SUM:*			1316
VOLUME/CAPACITY *(V/C)* RATIO:				0.860			0.878				0.860				0.878				0.877
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.760**			**0.778**				**0.760**				**0.778**				**0.777**
LEVEL OF SERVICE (LOS):				**C**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.018	$\Delta v/c$ after mitigation:	0.017
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Vineland Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
9	East-West Street:	Strathern St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	121	1	**121**	1	122	**122**	1	128	1	**128**	1	129	1	**129**	0	129	1	**129**
	Left-Through		0							0				0				0	
	Through	795	2	398	0	795	398	7	843	2	422	0	843	2	422	0	843	2	422
	Through-Right		0							0				0				0	
	Right	56	1	7	0	56	5	1	60	1	7	0	60	1	5	0	60	1	5
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	65	1	65	0	65	65	0	68	1	68	0	68	1	68	0	68	1	68
	Left-Through		0							0				0				0	
	Through	854	2	**427**	5	859	**430**	8	906	2	**453**	5	911	2	**456**	0	911	2	**456**
	Through-Right		0							0				0				0	
	Right	108	1	17	4	112	17	0	114	1	17	4	118	1	17	0	118	1	17
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	182	1	182	9	191	191	3	194	1	194	9	203	1	203	0	203	1	203
	Left-Through		0							0				0				0	
	Through	352	1	**352**	12	364	**364**	4	374	1	**374**	12	386	1	**386**	0	386	1	**386**
	Through-Right		0							0				0				0	
	Right	148	1	88	3	151	90	2	158	1	94	3	161	1	97	0	161	1	97
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	99	1	**99**	4	103	**103**	2	106	1	**106**	4	110	1	**110**	0	110	1	**110**
	Left-Through		0							0				0				0	
	Through	167	1	167	3	170	170	4	180	1	180	3	183	1	183	0	183	1	183
	Through-Right		0							0				0				0	
	Right	62	1	30	0	62	30	0	65	1	31	0	65	1	31	0	65	1	31
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		548	*North-South:*		552	*North-South:*			581	*North-South:*			585	*North-South:*			585
		East-West:		451	*East-West:*		467	*East-West:*			480	*East-West:*			496	*East-West:*			496
		SUM:		999	*SUM:*		1019	*SUM:*			1061	*SUM:*			1081	*SUM:*			1081
VOLUME/CAPACITY *(V/C)* RATIO:				0.666			0.679				0.707				0.721				0.721
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.566**			**0.579**				**0.607**				**0.621**				**0.621**
LEVEL OF SERVICE (LOS):				**A**			**A**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.014	Δ*v/c* after mitigation:	0.014
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Vineland Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
9	East-West Street:	Strathern St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	121	1	**121**	1	122	**122**	0	121	1	**121**	1	122	1	**122**	0	122	1	**122**
	Left-Through		0							0				0				0	
	Through	795	2	398	0	795	398	0	795	2	398	0	795	2	398	0	795	2	398
	Through-Right		0							0				0				0	
	Right	56	1	7	0	56	5	0	56	1	7	0	56	1	5	0	56	1	5
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	65	1	65	0	65	65	0	65	1	65	0	65	1	65	0	65	1	65
	Left-Through		0							0				0				0	
	Through	854	2	**427**	5	859	**430**	0	854	2	**427**	5	859	2	**430**	0	859	2	**430**
	Through-Right		0							0				0				0	
	Right	108	1	17	4	112	17	0	108	1	17	4	112	1	17	0	112	1	17
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	182	1	182	9	191	191	0	182	1	182	9	191	1	191	0	191	1	191
	Left-Through		0							0				0				0	
	Through	352	1	**352**	12	364	**364**	0	352	1	**352**	12	364	1	**364**	0	364	1	**364**
	Through-Right		0							0				0				0	
	Right	148	1	88	3	151	90	0	148	1	88	3	151	1	90	0	151	1	90
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	99	1	**99**	4	103	**103**	0	99	1	**99**	4	103	1	**103**	0	103	1	**103**
	Left-Through		0							0				0				0	
	Through	167	1	167	3	170	170	0	167	1	167	3	170	1	170	0	170	1	170
	Through-Right		0							0				0				0	
	Right	62	1	30	0	62	30	0	62	1	30	0	62	1	30	0	62	1	30
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		548	*North-South:*		552	*North-South:*			548	*North-South:*			552	*North-South:*			552
		East-West:		451	*East-West:*		467	*East-West:*			451	*East-West:*			467	*East-West:*			467
		SUM:		999	*SUM:*		1019	*SUM:*			999	*SUM:*			1019	*SUM:*			1019
VOLUME/CAPACITY *(V/C)* RATIO:				0.666			0.679				0.666				0.679				0.679
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.566**			**0.579**				**0.566**				**0.579**				**0.579**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.013	∆*v/c* after mitigation:	0.013
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
10	East-West Street:	Stagg St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB--	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	47	1	**47**	0	47	**47**	6	55	1	**55**	0	55	1	**55**	0	55	1	**55**
	Left-Through		0							0				0				0	
	Through	661	2	331	25	686	343	44	739	2	370	25	764	2	382	0	764	2	382
	Through-Right		0							0				0				0	
	Right	24	1	24	0	24	24	3	28	1	28	0	28	1	28	0	28	1	28
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	38	1	38	0	38	38	0	40	1	40	0	40	1	40	0	40	1	40
	Left-Through		0							0				0				0	
	Through	1179	2	**590**	15	1194	**597**	6	1245	2	**623**	15	1260	2	**630**	-1	1259	2	**630**
	Through-Right		0							0				0				0	
	Right	42	1	42	0	42	42	0	44	1	44	0	44	1	44	0	44	1	44
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	43	0	**43**	16	59	**59**	0	45	0	**45**	16	61	0	**61**	0	61	0	**61**
	Left-Through		0							0				0				0	
	Through	27	0	138	0	27	154	0	28	0	145	0	28	0	161	0	28	0	161
	Through-Right		0							0				0				0	
	Right	68	0	0	0	68	0	1	72	0	0	0	72	0	0	0	72	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	40	0	40	0	40	40	0	42	0	42	0	42	0	42	0	42	0	42
	Left-Through		0							0				0				0	
	Through	61	0	**175**	0	61	**184**	0	64	0	**184**	0	64	0	**193**	0	64	0	**193**
	Through-Right		0							0				0				0	
	Right	74	0	0	9	83	0	0	78	0	0	9	87	0	0	0	87	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		637	*North-South:*		644	*North-South:*			678	*North-South:*			685	*North-South:*			685
		East-West:		218	*East-West:*		243	*East-West:*			229	*East-West:*			254	*East-West:*			254
		SUM:		855	*SUM:*		887	*SUM:*			907	*SUM:*			939	*SUM:*			939
VOLUME/CAPACITY *(V/C)* RATIO:				0.570			0.591				0.605				0.626				0.626
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.470**			**0.491**				**0.505**				**0.526**				**0.526**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.021	$\Delta v/c$ after mitigation:	0.021
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
10	East-West Street:	Stagg St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB--	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	47	1	**47**	0	47	**47**	0	47	1	**47**	0	47	1	**47**	0	47	1	**47**
	Left-Through		0							0				0				0	
	Through	661	2	331	25	686	343	0	661	2	331	25	686	2	343	0	686	2	343
	Through-Right		0							0				0				0	
	Right	24	1	24	0	24	24	0	24	1	24	0	24	1	24	0	24	1	24
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	38	1	38	0	38	38	0	38	1	38	0	38	1	38	0	38	1	38
	Left-Through		0							0				0				0	
	Through	1179	2	**590**	15	1194	**597**	0	1179	2	**590**	15	1194	2	**597**	-1	1193	2	**597**
	Through-Right		0							0				0				0	
	Right	42	1	42	0	42	42	0	42	1	42	0	42	1	42	0	42	1	42
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	43	0	**43**	16	59	**59**	0	43	0	**43**	16	59	0	**59**	0	59	0	**59**
	Left-Through		0							0				0				0	
	Through	27	0	138	0	27	154	0	27	0	138	0	27	0	154	0	27	0	154
	Through-Right		0							0				0				0	
	Right	68	0	0	0	68	0	0	68	0	0	0	68	0	0	0	68	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	40	0	40	0	40	40	0	40	0	40	0	40	0	40	0	40	0	40
	Left-Through		0							0				0				0	
	Through	61	0	**175**	0	61	**184**	0	61	0	**175**	0	61	0	**184**	0	61	0	**184**
	Through-Right		0							0				0				0	
	Right	74	0	0	9	83	0	0	74	0	0	9	83	0	0	0	83	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		637	*North-South:*		644	*North-South:*			637	*North-South:*			644	*North-South:*			644
		East-West:		218	*East-West:*		243	*East-West:*			218	*East-West:*			243	*East-West:*			243
		SUM:		855	*SUM:*		887	*SUM:*			855	*SUM:*			887	*SUM:*			887
VOLUME/CAPACITY *(V/C)* RATIO:				0.570			0.591				0.570				0.591				0.591
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.470**			**0.491**				**0.470**				**0.491**				**0.491**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.021	Δ*v/c* after mitigation:	0.021
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Saticoy St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	102	1	**102**	0	102	**102**	8	115	1	**115**	0	115	1	**115**	0	115	1	**115**
	Left-Through		0							0				0				0	
	Through	525	2	263	14	539	270	15	567	2	284	14	581	2	291	0	581	2	291
	Through-Right		0							0				0				0	
	Right	55	1	21	0	55	21	2	60	1	25	0	60	1	25	0	60	1	25
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	176	1	176	0	176	176	6	191	1	191	0	191	1	191	0	191	1	191
	Left-Through		0							0				0				0	
	Through	1033	2	**517**	15	1048	**524**	13	1099	2	**550**	15	1114	2	**557**	-1	1113	2	**557**
	Through-Right		0							0				0				0	
	Right	118	1	79	0	118	76	3	127	1	86	0	127	1	83	0	127	1	83
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	78	1	78	6	84	84	1	83	1	83	6	89	1	89	0	89	1	89
	Left-Through		0							0				0				0	
	Through	514	1	**336**	0	514	**336**	2	542	1	**354**	0	542	1	**354**	0	542	1	**354**
	Through-Right		1							1				1				1	
	Right	157	0	157	0	157	157	0	165	0	165	0	165	0	165	0	165	0	165
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	68	1	**68**	0	68	**68**	0	71	1	**71**	0	71	1	**71**	0	71	1	**71**
	Left-Through		0							0				0				0	
	Through	476	1	293	0	476	295	1	501	1	309	0	501	1	311	0	501	1	311
	Through-Right		1							1				1				1	
	Right	109	0	109	5	114	114	1	116	0	116	5	121	0	121	0	121	0	121
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		619	*North-South:*		626	*North-South:*			665	*North-South:*			672	*North-South:*			672
		East-West:		404	*East-West:*		404	*East-West:*			425	*East-West:*			425	*East-West:*			425
		SUM:		1023	*SUM:*		1030	*SUM:*			1090	*SUM:*			1097	*SUM:*			1097
VOLUME/CAPACITY *(V/C)* RATIO:				0.682			0.687				0.727				0.731				0.731
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.582**			**0.587**				**0.627**				**0.631**				**0.631**
LEVEL OF SERVICE (LOS):				**A**			**A**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	∆*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Saticoy St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	102	1	**102**	0	102	**102**	0	102	1	**102**	0	102	1	**102**	0	102	1	**102**
	Left-Through		0							0				0				0	
	Through	525	2	263	14	539	270	0	525	2	263	14	539	2	270	0	539	2	270
	Through-Right		0							0				0				0	
	Right	55	1	21	0	55	21	0	55	1	21	0	55	1	21	0	55	1	21
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	176	1	176	0	176	176	0	176	1	176	0	176	1	176	0	176	1	176
	Left-Through		0							0				0				0	
	Through	1033	2	**517**	15	1048	**524**	0	1033	2	**517**	15	1048	2	**524**	-1	1047	2	**524**
	Through-Right		0							0				0				0	
	Right	118	1	79	0	118	76	0	118	1	79	0	118	1	76	0	118	1	76
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	78	1	78	6	84	84	0	78	1	78	6	84	1	84	0	84	1	84
	Left-Through		0							0				0				0	
	Through	514	1	**336**	0	514	**336**	0	514	1	**336**	0	514	1	**336**	0	514	1	**336**
	Through-Right		1							1				1				1	
	Right	157	0	157	0	157	157	0	157	0	157	0	157	0	157	0	157	0	157
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	68	1	**68**	0	68	**68**	0	68	1	**68**	0	68	1	**68**	0	68	1	**68**
	Left-Through		0							0				0				0	
	Through	476	1	293	0	476	295	0	476	1	293	0	476	1	295	0	476	1	295
	Through-Right		1							1				1				1	
	Right	109	0	109	5	114	114	0	109	0	109	5	114	0	114	0	114	0	114
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	619		*North-South:*	626		*North-South:*	619			*North-South:*	626			*North-South:*	626	
			East-West:	404		*East-West:*	404		*East-West:*	404			*East-West:*	404			*East-West:*	404	
			SUM:	1023		*SUM:*	1030		*SUM:*	1023			*SUM:*	1030			*SUM:*	1030	
VOLUME/CAPACITY *(V/C)* RATIO:				0.682			0.687			0.682				0.687				0.687	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.582**			**0.587**			**0.582**				**0.587**				**0.587**	
LEVEL OF SERVICE (LOS):				**A**			**A**			**A**				**A**				**A**	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	∆*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Saticoy St	Projection Year:	2023	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	121	1	**121**	2	123	**123**	0	127	1	**127**	2	129	1	**129**	0	129	1	**129**
	Left-Through		0							0				0				0	
	Through	433	1	237	1	434	237	0	455	1	249	1	456	1	249	0	456	1	249
	Through-Right		1							1				1				1	
	Right	40	0	40	0	40	40	0	42	0	42	0	42	0	42	0	42	0	42
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	62	1	62	5	67	67	0	65	1	65	5	70	1	70	0	70	1	70
	Left-Through		0							0				0				0	
	Through	644	1	**644**	8	652	**652**	0	677	1	**677**	8	685	1	**685**	0	685	1	**685**
	Through-Right		0							0				0				0	
	Right	81	1	44	0	81	44	0	85	1	46	0	85	1	46	0	85	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	75	1	75	0	75	75	0	79	1	79	0	79	1	79	0	79	1	79
	Left-Through		0							0				0				0	
	Through	459	1	**324**	0	459	**324**	7	489	1	**345**	0	489	1	**345**	0	489	1	**345**
	Through-Right		1							1				1				1	
	Right	188	0	188	0	188	188	3	201	0	201	0	201	0	201	0	201	0	201
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	52	1	**52**	0	52	**52**	0	55	1	**55**	0	55	1	**55**	0	55	1	**55**
	Left-Through		0							0				0				0	
	Through	314	1	187	3	317	189	2	332	1	197	3	335	1	200	0	335	1	200
	Through-Right		1							1				1				1	
	Right	59	0	59	2	61	61	0	62	0	62	2	64	0	64	0	64	0	64
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	765		*North-South:*	775		*North-South:*		804		*North-South:*		814		*North-South:*		814
			East-West:	376		*East-West:*	376		*East-West:*		400		*East-West:*		400		*East-West:*		400
			SUM:	1141		*SUM:*	1151		*SUM:*		1204		*SUM:*		1214		*SUM:*		1214
VOLUME/CAPACITY *(V/C)* RATIO:				0.761			0.767				0.803				0.809				0.809
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.661**			**0.667**				**0.703**				**0.709**				**0.709**
LEVEL OF SERVICE (LOS):				**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	∆*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Saticoy St	Projection Year:	2018	Peak Hour:	AM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISITING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	121	1	**121**	2	123	**123**	0	121	1	**121**	2	123	1	**123**	0	123	1	**123**
	Left-Through		0							0				0				0	
	Through	433	1	237	1	434	237	0	433	1	237	1	434	1	237	0	434	1	237
	Through-Right		1							1				1				1	
	Right	40	0	40	0	40	40	0	40	0	40	0	40	0	40	0	40	0	40
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	62	1	62	5	67	67	0	62	1	62	5	67	1	67	0	67	1	67
	Left-Through		0							0				0				0	
	Through	644	1	**644**	8	652	**652**	0	644	1	**644**	8	652	1	**652**	0	652	1	**652**
	Through-Right		0							0				0				0	
	Right	81	1	44	0	81	44	0	81	1	44	0	81	1	44	0	81	1	44
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	75	1	75	0	75	75	0	75	1	75	0	75	1	75	0	75	1	75
	Left-Through		0							0				0				0	
	Through	459	1	**324**	0	459	**324**	0	459	1	**324**	0	459	1	**324**	0	459	1	**324**
	Through-Right		1							1				1				1	
	Right	188	0	188	0	188	188	0	188	0	188	0	188	0	188	0	188	0	188
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	52	1	**52**	0	52	**52**	0	52	1	**52**	0	52	1	**52**	0	52	1	**52**
	Left-Through		0							0				0				0	
	Through	314	1	187	3	317	189	0	314	1	187	3	317	1	189	0	317	1	189
	Through-Right		1							1				1				1	
	Right	59	0	59	2	61	61	0	59	0	59	2	61	0	61	0	61	0	61
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	765		*North-South:*	775		*North-South:*		765		*North-South:*		775		*North-South:*		775
			East-West:	376		*East-West:*	376		*East-West:*		376		*East-West:*		376		*East-West:*		376
			SUM:	1141		*SUM:*	1151		*SUM:*		1141		*SUM:*		1151		*SUM:*		1151
VOLUME/CAPACITY *(V/C)* RATIO:				0.761			0.767				0.761				0.767				0.767
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.661**			**0.667**				**0.661**				**0.667**				**0.667**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.006	Δ*v/c* after mitigation:	0.006
Significant impacted?	NO	Fully mitigated?	N/A

PM Peak Hours

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
1	East-West Street:	I-5 NB Ramps	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			3			3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--		0	NB-- 0	SB--		0	NB-- 0	SB--		0
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--		0	EB-- 0	WB--		0	EB-- 0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?			2			2				2				2				2
Override Capacity			0			0				0				0				0

MOVEMENT		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	288	1	**288**	5	293	**293**	3	306	1	**306**	5	311	1	**311**	0	311	1	**311**
	Left-Through		0							0				0				0	
	Through	570	2	285	4	574	287	3	602	2	301	4	606	2	303	0	606	2	303
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	493	2	**247**	3	496	**248**	7	525	2	**263**	3	528	2	**264**	0	528	2	**264**
	Through-Right		0							0				0				0	
	Right	120	1	120	0	120	120	0	126	1	126	0	126	1	126	0	126	1	126
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	116	0	116	5	121	121	10	132	0	132	5	137	0	137	0	137	0	137
	Left-Through		0							0				0				0	
	Through	2	0	118	0	2	123	0	2	0	134	0	2	0	139	0	2	0	139
	Through-Right		0							0				0				0	
	Right	191	1	**191**	0	191	**191**	0	201	1	**201**	0	201	1	**201**	0	201	1	**201**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	535		*North-South:*	541		*North-South:*		569		*North-South:*		575		*North-South:*		575
			East-West:	191		*East-West:*	191		*East-West:*		201		*East-West:*		201		*East-West:*		201
			SUM:	726		*SUM:*	732		*SUM:*		770		*SUM:*		776		*SUM:*		776
VOLUME/CAPACITY *(V/C)* RATIO:				0.509			0.514				0.540				0.545				0.545
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.409**			**0.414**				**0.440**				**0.445**				**0.445**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	∆*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
1	East-West Street:	I-5 NB Ramps	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
No. of Phases			3			3			3				3				3	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	288	1	**288**	5	293	**293**	0	288	1	**288**	5	293	1	**293**	0	293	1	**293**
	Left-Through		0							0				0				0	
	Through	570	2	285	4	574	287	0	570	2	285	4	574	2	287	0	574	2	287
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	493	2	**247**	3	496	**248**	0	493	2	**247**	3	496	2	**248**	0	496	2	**248**
	Through-Right		0							0				0				0	
	Right	120	1	120	0	120	120	0	120	1	120	0	120	1	120	0	120	1	120
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	116	0	116	5	121	121	0	116	0	116	5	121	0	121	0	121	0	121
	Left-Through		0							0				0				0	
	Through	2	0	118	0	2	123	0	2	0	118	0	2	0	123	0	2	0	123
	Through-Right		0							0				0				0	
	Right	191	1	**191**	0	191	**191**	0	191	1	**191**	0	191	1	**191**	0	191	1	**191**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	535		*North-South:*	541		*North-South:*	535			*North-South:*	541			*North-South:*	541
			East-West:	191		*East-West:*	191		*East-West:*	191			*East-West:*	191			*East-West:*	191
			SUM:	726		*SUM:*	732		*SUM:*	726			*SUM:*	732			*SUM:*	732
	VOLUME/CAPACITY *(V/C)* RATIO:			0.509			0.514			0.509				0.514				0.514
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.409			0.414			0.409				0.414				0.414
	LEVEL OF SERVICE (LOS):			A			A			A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.005	Δ*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	I-5 SB Ramps/Cayuga Ave	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	19	1	19	6	25	25	4	24	1	24	6	30	1	30	0	30	1	30
	Left-Through		0							0				0				0	
	Through	716	2	**358**	9	725	**363**	6	759	2	**380**	9	768	2	**384**	0	768	2	**384**
	Through-Right		0							0				0				0	
	Right	4	1	4	0	4	4	0	4	1	4	0	4	1	4	0	4	1	4
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	5	1	**5**	0	5	**5**	0	5	1	**5**	0	5	1	**5**	0	5	1	**5**
	Left-Through		0							0				0				0	
	Through	491	2	246	8	499	250	17	533	2	267	8	541	2	271	0	541	2	271
	Through-Right		0							0				0				0	
	Right	130	1	130	0	130	130	0	137	1	137	0	137	1	137	0	137	1	137
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	98	0	98	0	98	98	0	103	0	103	0	103	0	103	0	103	0	103
	Left-Through		0							0				0				0	
	Through	15	0	113	0	15	113	0	16	0	119	0	16	0	119	0	16	0	119
	Through-Right		0							0				0				0	
	Right	312	1	**303**	2	314	**302**	7	335	1	**323**	2	337	1	**322**	0	337	1	**322**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	2	0	**2**	0	2	**2**	0	2	0	**2**	0	2	0	**2**	0	2	0	**2**
	Left-Through		0							0				0				0	
	Through	2	0	27	0	2	27	0	2	0	28	0	2	0	28	0	2	0	28
	Through-Right		0							0				0				0	
	Right	23	0	0	0	23	0	0	24	0	0	0	24	0	0	0	24	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		North-South:		363	North-South:		368	North-South:			385	North-South:			389	North-South:			389
		East-West:		305	East-West:		304	East-West:			325	East-West:			324	East-West:			324
		SUM:		668	SUM:		672	SUM:			710	SUM:			713	SUM:			713
VOLUME/CAPACITY (V/C) RATIO:				0.445			0.448				0.473				0.475				0.475
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.345			0.348				0.373				0.375				0.375
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
2	East-West Street:	I-5 SB Ramps/Cayuga Ave	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	19	1	19	6	25	25	0	19	1	19	6	25	1	25	0	25	1	25
	Left-Through		0							0				0				0	
	Through	716	2	**358**	9	725	**363**	0	716	2	**358**	9	725	2	**363**	0	725	2	**363**
	Through-Right		0							0				0				0	
	Right	4	1	4	0	4	4	0	4	1	4	0	4	1	4	0	4	1	4
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	5	1	**5**	0	5	**5**	0	5	1	**5**	0	5	1	**5**	0	5	1	**5**
	Left-Through		0							0				0				0	
	Through	491	2	246	8	499	250	0	491	2	246	8	499	2	250	0	499	2	250
	Through-Right		0							0				0				0	
	Right	130	1	130	0	130	130	0	130	1	130	0	130	1	130	0	130	1	130
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	98	0	98	0	98	98	0	98	0	98	0	98	0	98	0	98	0	98
	Left-Through		0							0				0				0	
	Through	15	0	113	0	15	113	0	15	0	113	0	15	0	113	0	15	0	113
	Through-Right		0							0				0				0	
	Right	312	1	**303**	2	314	**302**	0	312	1	**303**	2	314	1	**302**	0	314	1	**302**
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	2	0	**2**	0	2	**2**	0	2	0	**2**	0	2	0	**2**	0	2	0	**2**
	Left-Through		0							0				0				0	
	Through	2	0	27	0	2	27	0	2	0	27	0	2	0	27	0	2	0	27
	Through-Right		0							0				0				0	
	Right	23	0	0	0	23	0	0	23	0	0	0	23	0	0	0	23	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		363	*North-South:*		368	*North-South:*			363	*North-South:*			368	*North-South:*			368
		East-West:		305	*East-West:*		304	*East-West:*			305	*East-West:*			304	*East-West:*			304
		SUM:		668	*SUM:*		672	*SUM:*			668	*SUM:*			672	*SUM:*			672
VOLUME/CAPACITY *(V/C)* RATIO:				0.445			0.448				0.445				0.448				0.448
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.345**			**0.348**				**0.345**				**0.348**				**0.348**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	$\Delta v/c$ after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Roscoe Blvd	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			4			4			4				4				4	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	208	1	208	5	213	213	2	221	1	221	5	226	1	226	0	226	1	226
	Left-Through		0							0				0				0	
	Through	705	2	**353**	4	709	**355**	1	742	2	**371**	4	746	2	**373**	0	746	2	**373**
	Through-Right		0							0				0				0	
	Right	196	1	122	0	196	121	0	206	1	128	0	206	1	127	0	206	1	127
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	153	1	**153**	0	153	**153**	0	161	1	**161**	0	161	1	**161**	0	161	1	**161**
	Left-Through		0							0				0				0	
	Through	399	2	200	16	415	208	11	430	2	215	16	446	2	223	0	446	2	223
	Through-Right		0							0				0				0	
	Right	84	1	46	0	84	46	0	88	1	48	0	88	1	48	0	88	1	48
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	76	1	76	0	76	76	0	80	1	80	0	80	1	80	0	80	1	80
	Left-Through		0							0				0				0	
	Through	908	2	**454**	5	913	**457**	0	954	2	**477**	5	959	2	**480**	0	959	2	**480**
	Through-Right		0							0				0				0	
	Right	141	1	37	14	155	49	0	148	1	38	14	162	1	49	0	162	1	49
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	149	1	**149**	1	150	**150**	0	157	1	**157**	1	158	1	**158**	0	158	1	**158**
	Left-Through		0							0				0				0	
	Through	1038	2	519	12	1050	525	0	1091	2	546	12	1103	2	552	0	1103	2	552
	Through-Right		0							0				0				0	
	Right	116	1	40	0	116	40	0	122	1	42	0	122	1	42	0	122	1	42
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		506	*North-South:*		508	*North-South:*			532	*North-South:*			534	*North-South:*			534
		East-West:		603	*East-West:*		607	*East-West:*			634	*East-West:*			638	*East-West:*			638
		SUM:		1109	*SUM:*		1115	*SUM:*			1166	*SUM:*			1172	*SUM:*			1172
	VOLUME/CAPACITY *(V/C)* RATIO:			0.807			0.811				0.848				0.852				0.852
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.707			0.711				0.748				0.752				0.752
	LEVEL OF SERVICE (LOS):			C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
3	East-West Street:	Roscoe Blvd	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	208	1	208	5	213	213	0	208	1	208	5	213	1	213	0	213	1	213
	Left-Through		0							0				0				0	
	Through	705	2	**353**	4	709	**355**	0	705	2	**353**	4	709	2	**355**	0	709	2	**355**
	Through-Right		0							0				0				0	
	Right	196	1	122	0	196	121	0	196	1	122	0	196	1	121	0	196	1	121
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	153	1	**153**	0	153	**153**	0	153	1	**153**	0	153	1	**153**	0	153	1	**153**
	Left-Through		0							0				0				0	
	Through	399	2	200	16	415	208	0	399	2	200	16	415	2	208	0	415	2	208
	Through-Right		0							0				0				0	
	Right	84	1	46	0	84	46	0	84	1	46	0	84	1	46	0	84	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	76	1	76	0	76	76	0	76	1	76	0	76	1	76	0	76	1	76
	Left-Through		0							0				0				0	
	Through	908	2	**454**	5	913	**457**	0	908	2	**454**	5	913	2	**457**	0	913	2	**457**
	Through-Right		0							0				0				0	
	Right	141	1	37	14	155	49	0	141	1	37	14	155	1	49	0	155	1	49
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	149	1	**149**	1	150	**150**	0	149	1	**149**	1	150	1	**150**	0	150	1	**150**
	Left-Through		0							0				0				0	
	Through	1038	2	519	12	1050	525	0	1038	2	519	12	1050	2	525	0	1050	2	525
	Through-Right		0							0				0				0	
	Right	116	1	40	0	116	40	0	116	1	40	0	116	1	40	0	116	1	40
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		506	*North-South:*		508	*North-South:*			506	*North-South:*			508	*North-South:*			508
		East-West:		603	*East-West:*		607	*East-West:*			603	*East-West:*			607	*East-West:*			607
		SUM:		1109	*SUM:*		1115	*SUM:*			1109	*SUM:*			1115	*SUM:*			1115
VOLUME/CAPACITY *(V/C)* RATIO:				0.807			0.811				0.807				0.811				0.811
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.707			0.711				0.707				0.711				0.711
LEVEL OF SERVICE (LOS):				C			C				C				C				C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.004	Δ*v/c* after mitigation:	0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Webb Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	Roscoe Blvd	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	1	SB-- 1	NB--	1	SB-- 1	NB--	1	SB-- 1	NB--	1	SB-- 1	NB--	1	SB-- 1	NB--	1	SB-- 1	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	176	1	**176**	9	185	**185**	0	185	1	**185**	9	194	1	**194**	0	194	1	**194**
	Left-Through		0							0				0				0	
	Through	320	2	160	0	320	160	3	339	2	170	0	339	2	170	0	339	2	170
	Through-Right		0							0				0				0	
	Right	59	1	0	0	59	0	0	62	1	0	0	62	1	0	0	62	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	55	1	55	0	55	55	0	58	1	58	0	58	1	58	0	58	1	58
	Left-Through		0							0				0				0	
	Through	193	2	**97**	0	193	**97**	0	203	2	**102**	0	203	2	**102**	0	203	2	**102**
	Through-Right		0							0				0				0	
	Right	36	1	0	0	36	0	0	38	1	0	0	38	1	0	0	38	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	39	1	**39**	0	39	**39**	0	41	1	**41**	0	41	1	**41**	0	41	1	**41**
	Left-Through		0							0				0				0	
	Through	965	2	483	0	965	483	0	1014	2	507	0	1014	2	507	0	1014	2	507
	Through-Right		0							0				0				0	
	Right	231	1	143	5	236	144	0	243	1	151	5	248	1	151	0	248	1	151
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	72	1	72	0	72	72	0	76	1	76	0	76	1	76	0	76	1	76
	Left-Through		0							0				0				0	
	Through	1051	2	**526**	5	1056	**528**	0	1105	2	**553**	5	1110	2	**555**	0	1110	2	**555**
	Through-Right		0							0				0				0	
	Right	110	1	83	0	110	83	0	116	1	87	0	116	1	87	0	116	1	87
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	273		*North-South:*	282		*North-South:*		287		*North-South:*		296		*North-South:*		296
			East-West:	565		*East-West:*	567		*East-West:*		594		*East-West:*		596		*East-West:*		596
			SUM:	838		*SUM:*	849		*SUM:*		881		*SUM:*		892		*SUM:*		892
VOLUME/CAPACITY *(V/C)* RATIO:				0.559			0.566				0.587				0.595				0.595
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.459			0.466				0.487				0.495				0.495
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.008	Δ*v/c* after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Webb Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
4	East-West Street:	Roscoe Blvd	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 1	SB--	1	NB-- 1	SB--	1	NB--	1	SB--	1	NB--	1	SB--	1	NB--	1	SB--	1	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	176	1	**176**	9	185	**185**	0	176	1	**176**	9	185	1	**185**	0	185	1	**185**
	Left-Through		0							0				0				0	
	Through	320	2	160	0	320	160	0	320	2	160	0	320	2	160	0	320	2	160
	Through-Right		0							0				0				0	
	Right	59	1	0	0	59	0	0	59	1	0	0	59	1	0	0	59	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	55	1	55	0	55	55	0	55	1	55	0	55	1	55	0	55	1	55
	Left-Through		0							0				0				0	
	Through	193	2	**97**	0	193	**97**	0	193	2	**97**	0	193	2	**97**	0	193	2	**97**
	Through-Right		0							0				0				0	
	Right	36	1	0	0	36	0	0	36	1	0	0	36	1	0	0	36	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	39	1	**39**	0	39	**39**	0	39	1	**39**	0	39	1	**39**	0	39	1	**39**
	Left-Through		0							0				0				0	
	Through	965	2	483	0	965	483	0	965	2	483	0	965	2	483	0	965	2	483
	Through-Right		0							0				0				0	
	Right	231	1	143	5	236	144	0	231	1	143	5	236	1	144	0	236	1	144
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	72	1	72	0	72	72	0	72	1	72	0	72	1	72	0	72	1	72
	Left-Through		0							0				0				0	
	Through	1051	2	**526**	5	1056	**528**	0	1051	2	**526**	5	1056	2	**528**	0	1056	2	**528**
	Through-Right		0							0				0				0	
	Right	110	1	83	0	110	83	0	110	1	83	0	110	1	83	0	110	1	83
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		273	*North-South:*		282	*North-South:*			273	*North-South:*			282	*North-South:*			282
		East-West:		565	*East-West:*		567	*East-West:*			565	*East-West:*			567	*East-West:*			567
		SUM:		838	*SUM:*		849	*SUM:*			838	*SUM:*			849	*SUM:*			849
VOLUME/CAPACITY *(V/C)* RATIO:				0.559			0.566				0.559				0.566				0.566
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.459**			**0.466**				**0.459**				**0.466**				**0.466**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	Δ*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
5	East-West Street:	Roscoe Blvd/Tuxford St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			4			4			4			4			4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0
	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1	EB--	1	WB-- 1
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2
Override Capacity			0			0			0			0			0			0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	122	1	**122**	3	125	**125**	0	122	1	**122**	3	125	1	**125**	0	125	1	**125**
	Left-Through		0							0				0				0	
	Through	652	2	326	16	668	334	0	652	2	326	16	668	2	334	0	668	2	334
	Through-Right		0							0				0				0	
	Right	447	1	363	6	453	368	0	447	1	363	6	453	1	368	0	453	1	368
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	50	1	50	0	50	50	0	50	1	50	0	50	1	50	0	50	1	50
	Left-Through		0							0				0				0	
	Through	600	2	**300**	10	610	**305**	0	600	2	**300**	10	610	2	**305**	-1	609	2	**305**
	Through-Right		0							0				0				0	
	Right	118	1	83	0	118	83	0	118	1	83	0	118	1	83	0	118	1	83
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	70	1	70	0	70	70	0	70	1	70	0	70	1	70	0	70	1	70
	Left-Through		0							0				0				0	
	Through	930	2	**465**	0	930	**465**	0	930	2	**465**	0	930	2	**465**	0	930	2	**465**
	Through-Right		0							0				0				0	
	Right	94	1	0	0	94	0	0	94	1	0	0	94	1	0	0	94	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	168	1	**168**	2	170	**170**	0	168	1	**168**	2	170	1	**170**	0	170	1	**170**
	Left-Through		0							0				0				0	
	Through	999	2	500	1	1000	500	0	999	2	500	1	1000	2	500	0	1000	2	500
	Through-Right		0							0				0				0	
	Right	30	1	0	0	30	0	0	30	1	0	0	30	1	0	0	30	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		422	*North-South:*		430	*North-South:*			422	*North-South:*			430	*North-South:*			430
		East-West:		633	*East-West:*		635	*East-West:*			633	*East-West:*			635	*East-West:*			635
		SUM:		1055	*SUM:*		1065	*SUM:*			1055	*SUM:*			1065	*SUM:*			1065
VOLUME/CAPACITY *(V/C)* RATIO:				0.767			0.775				0.767				0.775				0.775
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.667**			**0.675**				**0.667**				**0.675**				**0.675**
LEVEL OF SERVICE (LOS):				**B**			**B**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.008	Δ*v/c* after mitigation:	0.008
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
5	East-West Street:	Roscoe Blvd/Tuxford St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			4			4			4			4			4			4	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	1	WB--	1	EB--	1	WB--	1	EB--	1	WB--	1	EB--	1	WB--	1	EB--	1	WB--	1
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	122	1	**122**	3	125	**125**	0	128	1	**128**	3	131	1	**131**	0	131	1	**131**
	Left-Through		0							0				0				0	
	Through	652	2	326	16	668	334	10	695	2	348	16	711	2	356	0	711	2	356
	Through-Right		0							0				0				0	
	Right	447	1	363	6	453	368	0	470	1	382	6	476	1	387	0	476	1	387
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	50	1	50	0	50	50	0	53	1	53	0	53	1	53	0	53	1	53
	Left-Through		0							0				0				0	
	Through	600	2	**300**	10	610	**305**	25	656	2	**328**	10	666	2	**333**	-1	665	2	**333**
	Through-Right		0							0				0				0	
	Right	118	1	83	0	118	83	0	124	1	87	0	124	1	87	0	124	1	87
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	70	1	70	0	70	70	0	74	1	74	0	74	1	74	0	74	1	74
	Left-Through		0							0				0				0	
	Through	930	2	**465**	0	930	**465**	0	977	2	**489**	0	977	2	**489**	0	977	2	**489**
	Through-Right		0							0				0				0	
	Right	94	1	0	0	94	0	0	99	1	0	0	99	1	0	0	99	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	168	1	**168**	2	170	**170**	0	177	1	**177**	2	179	1	**179**	0	179	1	**179**
	Left-Through		0							0				0				0	
	Through	999	2	500	1	1000	500	0	1050	2	525	1	1051	2	526	0	1051	2	526
	Through-Right		0							0				0				0	
	Right	30	1	0	0	30	0	0	32	1	0	0	32	1	0	0	32	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		422	*North-South:*		430	*North-South:*			456	*North-South:*			464	*North-South:*			464
		East-West:		633	*East-West:*		635	*East-West:*			666	*East-West:*			668	*East-West:*			668
		SUM:		1055	*SUM:*		1065	*SUM:*			1122	*SUM:*			1132	*SUM:*			1132
VOLUME/CAPACITY *(V/C)* RATIO:				0.767			0.775				0.816				0.823				0.823
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.667**			**0.675**				**0.716**				**0.723**				**0.723**
LEVEL OF SERVICE (LOS):				**B**			**B**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.007	Δ*v/c* after mitigation:	0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Strathern St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	88	1	88	0	88	88	1	93	1	93	0	93	1	93	0	93	1	93
	Left-Through		0							0				0				0	
	Through	877	2	439	0	877	439	2	924	2	462	0	924	2	462	0	924	2	462
	Through-Right		0							0				0				0	
	Right	87	1	51	0	87	43	0	91	1	53	0	91	1	45	0	91	1	45
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	54	1	54	14	68	68	0	57	1	57	14	71	1	71	-1	70	1	70
	Left-Through		0							0				0				0	
	Through	560	2	280	18	578	289	7	596	2	298	18	614	2	307	0	614	2	307
	Through-Right		0							0				0				0	
	Right	76	1	5	0	76	5	4	84	1	9	0	84	1	9	0	84	1	9
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	143	1	143	0	143	143	1	151	1	151	0	151	1	151	0	151	1	151
	Left-Through		0							0				0				0	
	Through	323	1	323	14	337	337	4	343	1	343	14	357	1	357	-1	356	1	356
	Through-Right		0							0				0				0	
	Right	65	1	21	7	72	28	1	69	1	23	7	76	1	30	0	76	1	30
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	72	1	72	17	89	89	0	76	1	76	17	93	1	93	0	93	1	93
	Left-Through		0							0				0				0	
	Through	366	1	366	18	384	384	8	393	1	393	18	411	1	411	0	411	1	411
	Through-Right		0							0				0				0	
	Right	105	1	78	9	114	80	0	110	1	82	9	119	1	84	0	119	1	84
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	493		*North-South:*	507		*North-South:*		519		*North-South:*		533		*North-South:*		532
			East-West:	509		*East-West:*	527		*East-West:*		544		*East-West:*		562		*East-West:*		562
			SUM:	1002		*SUM:*	1034		*SUM:*		1063		*SUM:*		1095		*SUM:*		1094
VOLUME/CAPACITY *(V/C)* RATIO:				0.668			0.689				0.709				0.730				0.729
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.568			0.589				0.609				0.630				0.629
LEVEL OF SERVICE (LOS):				A			A				B				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.021	Δ*v/c* after mitigation:	0.020
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
6	East-West Street:	Strathern St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	88	1	88	0	88	88	0	88	1	88	0	88	1	88	0	88	1	88
	Left-Through		0							0				0				0	
	Through	877	2	**439**	0	877	**439**	0	877	2	**439**	0	877	2	**439**	0	877	2	**439**
	Through-Right		0							0				0				0	
	Right	87	1	51	0	87	43	0	87	1	51	0	87	1	43	0	87	1	43
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	54	1	**54**	14	68	**68**	0	54	1	**54**	14	68	1	**68**	-1	67	1	**67**
	Left-Through		0							0				0				0	
	Through	560	2	280	18	578	289	0	560	2	280	18	578	2	289	0	578	2	289
	Through-Right		0							0				0				0	
	Right	76	1	5	0	76	5	0	76	1	5	0	76	1	5	0	76	1	5
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	143	1	**143**	0	143	**143**	0	143	1	**143**	0	143	1	**143**	0	143	1	**143**
	Left-Through		0							0				0				0	
	Through	323	1	323	14	337	337	0	323	1	323	14	337	1	337	-1	336	1	336
	Through-Right		0							0				0				0	
	Right	65	1	21	7	72	28	0	65	1	21	7	72	1	28	0	72	1	28
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	72	1	72	17	89	89	0	72	1	72	17	89	1	89	0	89	1	89
	Left-Through		0							0				0				0	
	Through	366	1	**366**	18	384	**384**	0	366	1	**366**	18	384	1	**384**	0	384	1	**384**
	Through-Right		0							0				0				0	
	Right	105	1	78	9	114	80	0	105	1	78	9	114	1	80	0	114	1	81
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		493	*North-South:*		507	*North-South:*			493	*North-South:*			507	*North-South:*			506
		East-West:		509	*East-West:*		527	*East-West:*			509	*East-West:*			527	*East-West:*			527
		SUM:		1002	*SUM:*		1034	*SUM:*			1002	*SUM:*			1034	*SUM:*			1033
VOLUME/CAPACITY *(V/C)* RATIO:				0.668			0.689				0.668				0.689				0.689
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.568**			**0.589**				**0.568**				**0.589**				**0.589**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

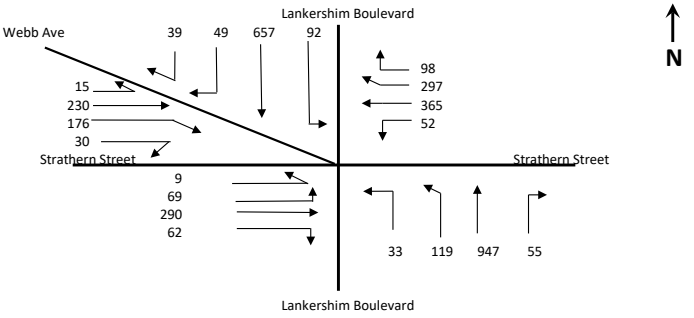
Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.021	Δ*v/c* after mitigation:	0.021
Significant impacted?	NO	Fully mitigated?	N/A

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Existing Conditions (Year 2018) - PM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

33 + 119 = 152 and

Southbound Through + Southbound Right To Strathern:

$\frac{49 + 657}{2}$ = 353 or

Southbound Right To Webb:

$\frac{39}{1}$ = 39

Southbound Left:

$\frac{92}{1}$ = 92 and

Northbound Through: or

$\frac{947}{2}$ = 474

Northbound Right:

$\frac{55}{1}$ = 55

Critical Volume #1 (CV1): **566**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

$\frac{9 + 69}{1}$ = 78 and

Westbound Through:

$\frac{365}{1}$ = 365 or

Westbound Slight Right to Webb and Right to Lankershim:

$\frac{297 + 98}{1}$ = 395

Westbound Left:

$\frac{52}{1}$ = 52 and

Eastbound Through:

$\frac{290}{1}$ = 290 or

Eastbound Right:

$\frac{62}{1}$ = 62

Critical Volume #2 (CV2): **473**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

$\frac{230 + 15}{1}$ = 245

Slight Right to Lankershim:

$\frac{176}{1}$ = 176 or

Sharp Right To Strathern:

$\frac{30}{1}$ = 30

Critical Volume #3 (CV3): **245**

Critical Volume: 566 + 473 + 245 = **1284**

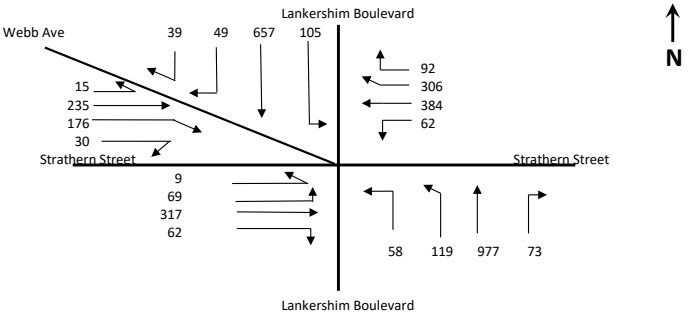
Intersection V/C: $\frac{1284}{1425}$ (3-phase) = **0.901**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.801 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Existing with Project Conditions (Year 2018) - PM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

58 + 119 = 177 and

Southbound Through + Southbound Right To Strathern:

(49 + 657) / 2 = 353 or

Southbound Right To Webb:

39 / 1 = 39

Southbound Left:

105 / 1 = 105 and

Northbound Through: or

977 / 2 = 489

Northbound Right:

73 / 1 = 73

Critical Volume #1 (CV1): **594**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

(9 + 69) / 1 = 78 and

Westbound Through:

384 / 1 = 384 or

Westbound Slight Right to Webb and Right to Lankershim:

(306 + 92) / 1 = 398

Westbound Left:

62 / 1 = 62 and

Eastbound Through:

317 / 1 = 317 or

Eastbound Right:

62 / 1 = 62

Critical Volume #2 (CV2): **476**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

(235 + 15) / 1 = 250

Slight Right to Lankershim:

176 / 1 = 176 or

Sharp Right To Strathern:

30 / 1 = 30

Critical Volume #3 (CV3): **250**

Critical Volume: 594 + 476 + 250 = **1320**

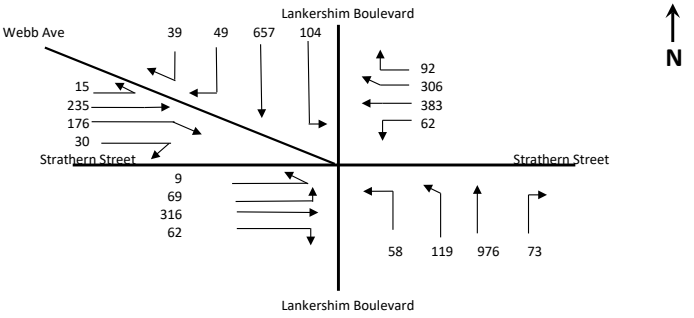
Intersection V/C: 1320 / 1425 (3-phase) = **0.926**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.826 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

EP With Mitigation - PM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

58 + 119 = 177 and

Southbound Through + Southbound Right To Strathern:

$\frac{49 + 657}{2}$ = 353 or

Southbound Right To Webb:

$\frac{39}{1}$ = 39

Southbound Left:

$\frac{104}{1}$ = 104 and

Northbound Through: or

$\frac{976}{2}$ = 488

Northbound Right:

$\frac{73}{1}$ = 73

Critical Volume #1 (CV1): **592**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

$\frac{9 + 69}{1}$ = 78 and

Westbound Through:

$\frac{383}{1}$ = 383 or

Westbound Slight Right to Webb and Right to Lankershim:

$\frac{306 + 92}{1}$ = 398

Westbound Left:

$\frac{62}{1}$ = 62 and

Eastbound Through:

$\frac{316}{1}$ = 316 or

Eastbound Right:

$\frac{62}{1}$ = 62

Critical Volume #2 (CV2): **476**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

$\frac{235 + 15}{1}$ = 250

Slight Right to Lankershim:

$\frac{176}{1}$ = 176 or

Sharp Right To Strathern:

$\frac{30}{1}$ = 30

Critical Volume #3 (CV3): **250**

Critical Volume: 592 + 476 + 250 = **1318**

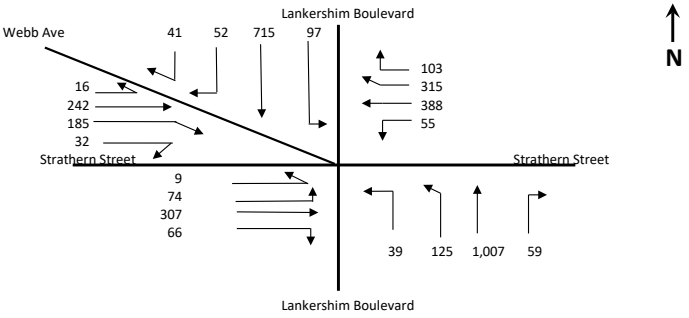
Intersection V/C: $\frac{1318}{1425}$ (3-phase) = **0.925**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.825 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Future without Project Conditions (Year 2023) - PM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

39 + 125 = 164 and

Southbound Through + Southbound Right To Strathern:

(52 + 715) / 2 = 384 or

Southbound Right To Webb:

41 / 1 = 41

Southbound Left:

97 / 1 = 97 and

Northbound Through: or

1,007 / 2 = 504

Northbound Right:

59 / 1 = 59

Critical Volume #1 (CV1): **601**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

(9 + 74) / 1 = 83 and

Westbound Through:

388 / 1 = 388 or

Westbound Slight Right to Webb and Right to Lankershim:

(315 + 103) / 1 = 418

Westbound Left:

55 / 1 = 55 and

Eastbound Through:

307 / 1 = 307 or

Eastbound Right:

66 / 1 = 66

Critical Volume #2 (CV2): **501**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

(242 + 16) / 1 = 258

Slight Right to Lankershim:

185 / 1 = 185 or

Sharp Right To Strathern:

32 / 1 = 32

Critical Volume #3 (CV3): **258**

Critical Volume: 601 + 501 + 258 = **1360**

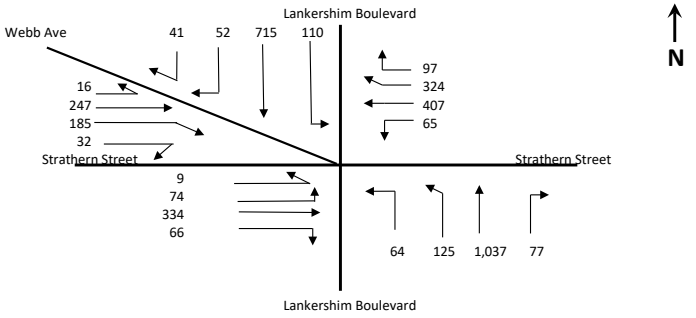
Intersection V/C: 1360 / 1425 (3-phase) = **0.954**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.854 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

Future with Project Conditions (Year 2023) - PM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:

64 + 125 = 189 and

Southbound Through + Southbound Right To Strathern:

(52 + 715) / 2 = 384 or

Southbound Right To Webb:

41 / 1 = 41

Southbound Left:

110 / 1 = 110 and

Northbound Through: or

1,037 / 2 = 519

Northbound Right:

77 / 1 = 77

Critical Volume #1 (CV1): **629**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:

(9 + 74) / 1 = 83 and

Westbound Through:

407 / 1 = 407 or

Westbound Slight Right to Webb and Right to Lankershim:

(324 + 97) / 1 = 421

Westbound Left:

65 / 1 = 65 and

Eastbound Through:

334 / 1 = 334 or

Eastbound Right:

66 / 1 = 66

Critical Volume #2 (CV2): **504**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:

(247 + 16) / 1 = 263

Slight Right to Lankershim:

185 / 1 = 185 or

Sharp Right To Strathern:

32 / 1 = 32

Critical Volume #3 (CV3): **263**

Critical Volume: 629 + 504 + 263 = **1396**

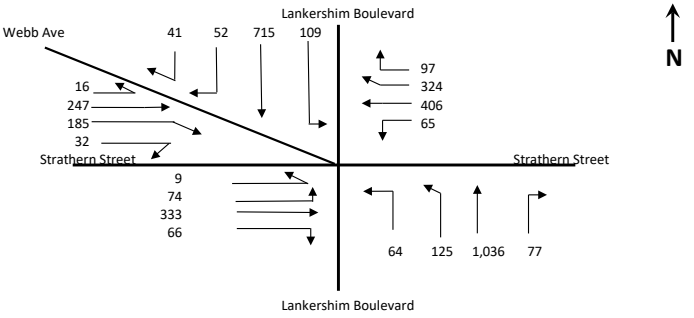
Intersection V/C: 1396 / 1425 (3-phase) = **0.98**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.880 **Intersection LOS: D**

Intersection 7 - Lankershim Boulevard & Webb Avenue & Strathern Street

FP With Mitigation - PM Peak Hour



1) Critical volume calculation for northbound/southbound traffic on Lankershim Boulevard

Northbound Sharp Left + Slight Left:
64 + 125 = 189 and

Southbound Through + Southbound Right To Strathern:
(52 + 715) / 2 = 384 or

Southbound Right To Webb:
41 / 1 = 41

Southbound Left:
109 / 1 = 109 and

Northbound Through: or
1,036 / 2 = 518

Northbound Right:
77 / 1 = 77

Critical Volume #1 (CV1): **627**

2) Critical volume calculation for westbound/eastbound traffic on Strathern Street

Eastbound Sharp Left + Slight Left:
(9 + 74) / 1 = 83 and

Westbound Through:
406 / 1 = 406 or

Westbound Slight Right to Webb and Right to Lankershim:
(324 + 97) / 1 = 421

Westbound Left:
65 / 1 = 65 and

Eastbound Through:
333 / 1 = 333 or

Eastbound Right:
66 / 1 = 66

Critical Volume #2 (CV2): **504**

3) Critical volume calculation for southeastbound traffic on Webb Avenue

Southeastbound Slight Left + Sharp Left:
(247 + 16) / 1 = 263

Slight Right to Lankershim:
185 / 1 = 185 or

Sharp Right To Strathern:
32 / 1 = 32

Critical Volume #3 (CV3): **263**

Critical Volume: 627 + 504 + 263 = **1394**

Intersection V/C: 1394 / 1425 (3-phase) = **0.978**

ATSAC/ATCS Credit: 0.10

Final intersection V/C: 0.878 **Intersection LOS: D**

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
8	East-West Street:	Strathern St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	282	1	**282**	9	291	**291**	0	296	1	**296**	9	305	1	**305**	0	305	1	**305**
	Left-Through		0							0				0				0	
	Through	306	1	306	0	306	306	0	322	1	322	0	322	1	322	0	322	1	322
	Through-Right		0							0				0				0	
	Right	122	1	77	0	122	77	0	128	1	81	0	128	1	81	0	128	1	81
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	20	1	20	0	20	20	0	21	1	21	0	21	1	21	0	21	1	21
	Left-Through		0							0				0				0	
	Through	286	0	**348**	0	286	**348**	0	301	0	**366**	0	301	0	**366**	0	301	0	**366**
	Through-Right		1							1				1				1	
	Right	62	0	0	0	62	0	0	65	0	0	0	65	0	0	0	65	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	40	1	**40**	0	40	**40**	0	42	1	**42**	0	42	1	**42**	0	42	1	**42**
	Left-Through		0							0				0				0	
	Through	383	1	383	25	408	408	3	406	1	406	25	431	1	431	0	431	1	431
	Through-Right		0							0				0				0	
	Right	181	1	40	10	191	46	0	190	1	42	10	200	1	48	0	200	1	48
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	90	1	90	0	90	90	0	95	1	95	0	95	1	95	0	95	1	95
	Left-Through		0							0				0				0	
	Through	491	0	**506**	21	512	**527**	4	520	0	**536**	21	541	0	**557**	-1	540	0	**556**
	Through-Right		1							1				1				1	
	Right	15	0	0	0	15	0	0	16	0	0	0	16	0	0	0	16	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	630		*North-South:*	639		*North-South:*		662		*North-South:*		671		*North-South:*		671
			East-West:	546		*East-West:*	567		*East-West:*		578		*East-West:*		599		*East-West:*		598
			SUM:	1176		*SUM:*	1206		*SUM:*		1240		*SUM:*		1270		*SUM:*		1269
VOLUME/CAPACITY *(V/C)* RATIO:				0.784			0.804				0.827				0.847				0.846
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.684**			**0.704**				**0.727**				**0.747**				**0.746**
LEVEL OF SERVICE (LOS):				**B**			**C**				**C**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.020	Δ*v/c* after mitigation:	0.019
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
8	East-West Street:	Strathern St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	282	1	**282**	9	291	**291**	0	282	1	**282**	9	291	1	**291**	0	291	1	**291**
	Left-Through		0							0				0				0	
	Through	306	1	306	0	306	306	0	306	1	306	0	306	1	306	0	306	1	306
	Through-Right		0							0				0				0	
	Right	122	1	77	0	122	77	0	122	1	77	0	122	1	77	0	122	1	77
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	20	1	20	0	20	20	0	20	1	20	0	20	1	20	0	20	1	20
	Left-Through		0							0				0				0	
	Through	286	0	**348**	0	286	**348**	0	286	0	**348**	0	286	0	**348**	0	286	0	**348**
	Through-Right		1							1				1				1	
	Right	62	0	0	0	62	0	0	62	0	0	0	62	0	0	0	62	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	40	1	**40**	0	40	**40**	0	40	1	**40**	0	40	1	**40**	0	40	1	**40**
	Left-Through		0							0				0				0	
	Through	383	1	383	25	408	408	0	383	1	383	25	408	1	408	0	408	1	408
	Through-Right		0							0				0				0	
	Right	181	1	40	10	191	46	0	181	1	40	10	191	1	46	0	191	1	46
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	90	1	90	0	90	90	0	90	1	90	0	90	1	90	0	90	1	90
	Left-Through		0							0				0				0	
	Through	491	0	**506**	21	512	**527**	0	491	0	**506**	21	512	0	**527**	-1	511	0	**526**
	Through-Right		1							1				1				1	
	Right	15	0	0	0	15	0	0	15	0	0	0	15	0	0	0	15	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	630		*North-South:*	639		*North-South:*		630		*North-South:*		639		*North-South:*		639
			East-West:	546		*East-West:*	567		*East-West:*		546		*East-West:*		567		*East-West:*		566
			SUM:	1176		*SUM:*	1206		*SUM:*		1176		*SUM:*		1206		*SUM:*		1205
VOLUME/CAPACITY *(V/C)* RATIO:				0.784			0.804				0.784				0.804				0.803
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.684**			**0.704**				**0.684**				**0.704**				**0.703**
LEVEL OF SERVICE (LOS):				**B**			**C**				**B**				**C**				**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.020	Δ*v/c* after mitigation:	0.019
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Vineland Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
9	East-West Street:	Strathern St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	126	1	**126**	2	128	**128**	3	135	1	**135**	2	137	1	**137**	0	137	1	**137**
	Left-Through		0							0				0				0	
	Through	925	2	463	0	925	463	11	983	2	492	0	983	2	492	0	983	2	492
	Through-Right		0							0				0				0	
	Right	37	1	7	0	37	4	3	42	1	10	0	42	1	7	0	42	1	7
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	51	1	51	0	51	51	0	54	1	54	0	54	1	54	0	54	1	54
	Left-Through		0							0				0				0	
	Through	951	2	**476**	9	960	**480**	9	1009	2	**505**	9	1018	2	**509**	0	1018	2	**509**
	Through-Right		0							0				0				0	
	Right	225	1	142	10	235	148	0	236	1	149	10	246	1	154	-1	245	1	153
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	166	1	**166**	9	175	**175**	1	175	1	**175**	9	184	1	**184**	0	184	1	**184**
	Left-Through		0							0				0				0	
	Through	160	1	160	12	172	172	1	169	1	169	12	181	1	181	0	181	1	181
	Through-Right		0							0				0				0	
	Right	98	1	35	4	102	38	1	104	1	37	4	108	1	40	0	108	1	40
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	60	1	60	7	67	67	1	64	1	64	7	71	1	71	0	71	1	71
	Left-Through		0							0				0				0	
	Through	231	1	**231**	8	239	**239**	1	244	1	**244**	8	252	1	**252**	0	252	1	**252**
	Through-Right		0							0				0				0	
	Right	47	1	22	0	47	22	0	49	1	22	0	49	1	22	0	49	1	22
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	602		*North-South:*	608		*North-South:*		640		*North-South:*		646		*North-South:*		646
			East-West:	397		*East-West:*	414		*East-West:*		419		*East-West:*		436		*East-West:*		436
			SUM:	999		*SUM:*	1022		*SUM:*		1059		*SUM:*		1082		*SUM:*		1082
VOLUME/CAPACITY *(V/C)* RATIO:				0.666			0.681				0.706				0.721				0.721
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.566**			**0.581**				**0.606**				**0.621**				**0.621**
LEVEL OF SERVICE (LOS):				**A**			**A**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	Δ*v/c* after mitigation:	0.015
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Vineland Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
9	East-West Street:	Strathern St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	126	1	**126**	2	128	**128**	0	126	1	**126**	2	128	1	**128**	0	128	1	**128**
	Left-Through		0							0				0				0	
	Through	925	2	463	0	925	463	0	925	2	463	0	925	2	463	0	925	2	463
	Through-Right		0							0				0				0	
	Right	37	1	7	0	37	4	0	37	1	7	0	37	1	4	0	37	1	4
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	51	1	51	0	51	51	0	51	1	51	0	51	1	51	0	51	1	51
	Left-Through		0							0				0				0	
	Through	951	2	**476**	9	960	**480**	0	951	2	**476**	9	960	2	**480**	0	960	2	**480**
	Through-Right		0							0				0				0	
	Right	225	1	142	10	235	148	0	225	1	142	10	235	1	148	-1	234	1	147
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	166	1	**166**	9	175	**175**	0	166	1	**166**	9	175	1	**175**	0	175	1	**175**
	Left-Through		0							0				0				0	
	Through	160	1	160	12	172	172	0	160	1	160	12	172	1	172	0	172	1	172
	Through-Right		0							0				0				0	
	Right	98	1	35	4	102	38	0	98	1	35	4	102	1	38	0	102	1	38
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	60	1	60	7	67	67	0	60	1	60	7	67	1	67	0	67	1	67
	Left-Through		0							0				0				0	
	Through	231	1	**231**	8	239	**239**	0	231	1	**231**	8	239	1	**239**	0	239	1	**239**
	Through-Right		0							0				0				0	
	Right	47	1	22	0	47	22	0	47	1	22	0	47	1	22	0	47	1	22
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	602		*North-South:*	608		*North-South:*	602			*North-South:*	608			*North-South:*	608	
			East-West:	397		*East-West:*	414		*East-West:*	397			*East-West:*	414			*East-West:*	414	
			SUM:	999		*SUM:*	1022		*SUM:*	999			*SUM:*	1022			*SUM:*	1022	
VOLUME/CAPACITY *(V/C)* RATIO:				0.666			0.681			0.666				0.681				0.681	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.566**			**0.581**			**0.566**				**0.581**				**0.581**	
LEVEL OF SERVICE (LOS):				**A**			**A**			**A**				**A**				**A**	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.015	∆*v/c* after mitigation:	0.015
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
10	East-West Street:	Stagg St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	60	1	60	0	60	60	2	65	1	65	0	65	1	65	0	65	1	65
	Left-Through		0							0				0				0	
	Through	1115	2	**558**	53	1168	**584**	17	1189	2	**595**	53	1242	2	**621**	-1	1241	2	**621**
	Through-Right		0							0				0				0	
	Right	36	1	36	0	36	36	1	39	1	39	0	39	1	39	0	39	1	39
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	58	1	**58**	0	58	**58**	0	61	1	**61**	0	61	1	**61**	0	61	1	**61**
	Left-Through		0							0				0				0	
	Through	900	2	450	10	910	455	25	971	2	486	10	981	2	491	0	981	2	491
	Through-Right		0							0				0				0	
	Right	50	1	50	0	50	50	0	53	1	53	0	53	1	53	0	53	1	53
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	29	0	29	29	58	58	0	30	0	30	29	59	0	59	0	59	0	59
	Left-Through		0							0				0				0	
	Through	14	0	**92**	0	14	**121**	0	15	0	**101**	0	15	0	**130**	0	15	0	**130**
	Through-Right		0							0				0				0	
	Right	49	0	0	0	49	0	5	56	0	0	0	56	0	0	0	56	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	18	0	**18**	0	18	**18**	3	22	0	**22**	0	22	0	**22**	0	22	0	**22**
	Left-Through		0							0				0				0	
	Through	14	0	59	0	14	75	0	15	0	65	0	15	0	81	0	15	0	81
	Through-Right		0							0				0				0	
	Right	27	0	0	16	43	0	0	28	0	0	16	44	0	0	0	44	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		616	*North-South:*		642	*North-South:*			656	*North-South:*			682	*North-South:*			682
		East-West:		110	*East-West:*		139	*East-West:*			123	*East-West:*			152	*East-West:*			152
		SUM:		726	*SUM:*		781	*SUM:*			779	*SUM:*			834	*SUM:*			834
VOLUME/CAPACITY *(V/C)* RATIO:				0.484			0.521				0.519				0.556				0.556
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.384			0.421				0.419				0.456				0.456
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.037	Δ*v/c* after mitigation:	0.037
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
10	East-West Street:	Stagg St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	60	1	60	0	60	60	0	60	1	60	0	60	1	60	0	60	1	60
	Left-Through		0							0				0				0	
	Through	1115	2	**558**	53	1168	**584**	0	1115	2	**558**	53	1168	2	**584**	-1	1167	2	**584**
	Through-Right		0							0				0				0	
	Right	36	1	36	0	36	36	0	36	1	36	0	36	1	36	0	36	1	36
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	58	1	**58**	0	58	**58**	0	58	1	**58**	0	58	1	**58**	0	58	1	**58**
	Left-Through		0							0				0				0	
	Through	900	2	450	10	910	455	0	900	2	450	10	910	2	455	0	910	2	455
	Through-Right		0							0				0				0	
	Right	50	1	50	0	50	50	0	50	1	50	0	50	1	50	0	50	1	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	29	0	29	29	58	58	0	29	0	29	29	58	0	58	0	58	0	58
	Left-Through		0							0				0				0	
	Through	14	0	**92**	0	14	**121**	0	14	0	**92**	0	14	0	**121**	0	14	0	**121**
	Through-Right		0							0				0				0	
	Right	49	0	0	0	49	0	0	49	0	0	0	49	0	0	0	49	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	18	0	**18**	0	18	**18**	0	18	0	**18**	0	18	0	**18**	0	18	0	**18**
	Left-Through		0							0				0				0	
	Through	14	0	59	0	14	75	0	14	0	59	0	14	0	75	0	14	0	75
	Through-Right		0							0				0				0	
	Right	27	0	0	16	43	0	0	27	0	0	16	43	0	0	0	43	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES		*North-South:*		616	*North-South:*		642	*North-South:*			616	*North-South:*			642	*North-South:*			642
		East-West:		110	*East-West:*		139	*East-West:*			110	*East-West:*			139	*East-West:*			139
		SUM:		726	*SUM:*		781	*SUM:*			726	*SUM:*			781	*SUM:*			781
VOLUME/CAPACITY *(V/C)* RATIO:				0.484			0.521				0.484				0.521				0.521
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.384			0.421				0.384				0.421				0.421
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.037	Δ*v/c* after mitigation:	0.037
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Saticoy St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases			2			2			2				2				2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0		NB-- 0	SB--	0		NB-- 0	SB--	0	
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0		EB-- 0	WB--	0		EB-- 0	WB--	0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
Override Capacity			0			0			0				0				0	

	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	156	1	156	0	156	156	3	167	1	167	0	167	1	167	0	167	1	167
	Left-Through		0							0				0				0	
	Through	1062	2	**531**	32	1094	**547**	24	1140	2	**570**	32	1172	2	**586**	-1	1171	2	**586**
	Through-Right		0							0				0				0	
	Right	59	1	20	0	59	20	1	63	1	21	0	63	1	21	0	63	1	21
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	98	1	**98**	0	98	**98**	2	105	1	**105**	0	105	1	**105**	0	105	1	**105**
	Left-Through		0							0				0				0	
	Through	723	2	362	10	733	367	12	772	2	386	10	782	2	391	0	782	2	391
	Through-Right		0							0				0				0	
	Right	118	1	78	0	118	72	1	125	1	81	0	125	1	75	0	125	1	75
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	80	1	**80**	12	92	**92**	5	89	1	**89**	12	101	1	**101**	0	101	1	**101**
	Left-Through		0							0				0				0	
	Through	377	1	243	0	377	243	1	397	1	257	0	397	1	257	0	397	1	257
	Through-Right		1							1				1				1	
	Right	108	0	108	0	108	108	2	116	0	116	0	116	0	116	0	116	0	116
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	79	1	79	0	79	79	2	85	1	85	0	85	1	85	0	85	1	85
	Left-Through		0							0				0				0	
	Through	443	1	**270**	0	443	**274**	6	472	1	**289**	0	472	1	**294**	0	472	1	**294**
	Through-Right		1							1				1				1	
	Right	96	0	96	9	105	105	5	106	0	106	9	115	0	115	0	115	0	115
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES		*North-South:*	629		*North-South:*	645		*North-South:*		675		*North-South:*		691		*North-South:*		691
			East-West:	350		*East-West:*	366		*East-West:*		378		*East-West:*		395		*East-West:*		395
			SUM:	979		*SUM:*	1011		*SUM:*		1053		*SUM:*		1086		*SUM:*		1086
	VOLUME/CAPACITY *(V/C)* RATIO:			0.653			0.674				0.702				0.724				0.724
	V/C LESS ATSAC/ATCS ADJUSTMENT:			**0.553**			**0.574**				**0.602**				**0.624**				**0.624**
	LEVEL OF SERVICE (LOS):			**A**			**A**				**B**				**B**				**B**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.022	Δ*v/c* after mitigation:	0.022
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Lankershim Blvd	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
11	East-West Street:	Saticoy St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2
Override Capacity			0			0			0			0			0			0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	156	1	156	0	156	156	0	156	1	156	0	156	1	156	0	156	1	156
	Left-Through		0							0				0				0	
	Through	1062	2	**531**	32	1094	**547**	0	1062	2	**531**	32	1094	2	**547**	-1	1093	2	**547**
	Through-Right		0							0				0				0	
	Right	59	1	20	0	59	20	0	59	1	20	0	59	1	20	0	59	1	20
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	98	1	**98**	0	98	**98**	0	98	1	**98**	0	98	1	**98**	0	98	1	**98**
	Left-Through		0							0				0				0	
	Through	723	2	362	10	733	367	0	723	2	362	10	733	2	367	0	733	2	367
	Through-Right		0							0				0				0	
	Right	118	1	78	0	118	72	0	118	1	78	0	118	1	72	0	118	1	72
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	80	1	**80**	12	92	**92**	0	80	1	**80**	12	92	1	**92**	0	92	1	**92**
	Left-Through		0							0				0				0	
	Through	377	1	243	0	377	243	0	377	1	243	0	377	1	243	0	377	1	243
	Through-Right		1							1				1				1	
	Right	108	0	108	0	108	108	0	108	0	108	0	108	0	108	0	108	0	108
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	79	1	79	0	79	79	0	79	1	79	0	79	1	79	0	79	1	79
	Left-Through		0							0				0				0	
	Through	443	1	**270**	0	443	**274**	0	443	1	**270**	0	443	1	**274**	0	443	1	**274**
	Through-Right		1							1				1				1	
	Right	96	0	96	9	105	105	0	96	0	96	9	105	0	105	0	105	0	105
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	629		*North-South:*	645		*North-South:*	629			*North-South:*	645			*North-South:*	645
			East-West:	350		*East-West:*	366		*East-West:*	350			*East-West:*	366			*East-West:*	366
			SUM:	979		*SUM:*	1011		*SUM:*	979			*SUM:*	1011			*SUM:*	1011
VOLUME/CAPACITY *(V/C)* RATIO:				0.653			0.674			0.653				0.674				0.674
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.553**			**0.574**			**0.553**				**0.574**				**0.574**
LEVEL OF SERVICE (LOS):				**A**			**A**			**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.021	∆*v/c* after mitigation:	0.021
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Saticoy St	Projection Year:	2023	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

No. of Phases			2			2			2			2			2			2	
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0			0	
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	NB--	0	SB-- 0	
	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	EB--	0	WB-- 0	
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2			2	
Override Capacity			0			0			0			0			0			0	

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	166	1	**166**	3	169	**169**	3	177	1	**177**	3	180	1	**180**	0	180	1	**180**
	Left-Through		0							0				0				0	
	Through	633	1	337	4	637	339	0	665	1	354	4	669	1	356	0	669	1	356
	Through-Right		1							1				1				1	
	Right	40	0	40	0	40	40	0	42	0	42	0	42	0	42	0	42	0	42
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	41	1	41	3	44	44	0	43	1	43	3	46	1	46	0	46	1	46
	Left-Through		0							0				0				0	
	Through	436	1	**436**	7	443	**443**	0	458	1	**458**	7	465	1	**465**	0	465	1	**465**
	Through-Right		0							0				0				0	
	Right	83	1	45	0	83	45	0	87	1	47	0	87	1	47	0	87	1	47
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	77	1	**77**	0	77	**77**	0	81	1	**81**	0	81	1	**81**	0	81	1	**81**
	Left-Through		0							0				0				0	
	Through	295	1	190	0	295	190	3	313	1	202	0	313	1	202	0	313	1	202
	Through-Right		1							1				1				1	
	Right	85	0	85	0	85	85	1	90	0	90	0	90	0	90	0	90	0	90
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	37	1	37	0	37	37	0	39	1	39	0	39	1	39	0	39	1	39
	Left-Through		0							0				0				0	
	Through	336	1	**192**	5	341	**197**	11	364	1	**207**	5	369	1	**212**	0	369	1	**212**
	Through-Right		1							1				1				1	
	Right	48	0	48	5	53	53	0	50	0	50	5	55	0	55	0	55	0	55
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	602		*North-South:*	612		*North-South:*		635		*North-South:*		645		*North-South:*		645
			East-West:	269		*East-West:*	274		*East-West:*		288		*East-West:*		293		*East-West:*		293
			SUM:	871		*SUM:*	886		*SUM:*		923		*SUM:*		938		*SUM:*		938
VOLUME/CAPACITY *(V/C)* RATIO:				0.581			0.591				0.615				0.625				0.625
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.481**			**0.491**				**0.515**				**0.525**				**0.525**
LEVEL OF SERVICE (LOS):				**A**			**A**				**A**				**A**				**A**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.010	$\Delta v/c$ after mitigation:	0.010
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Tujunga Ave	Year of Count:	2018	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	
12	East-West Street:	Saticoy St	Projection Year:	2018	Peak Hour:	PM	Reviewed by:		Project:	7940 Lankershim Bl

		EXISTING CONDITION			EXISTING PLUS PROJECT			EXISTING CONDITION				EXISTING CONDITION W/ PROJECT				EXISTING W/ PROJECT W/ MITIGATION			
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	No. of Phases			2			2			2				2				2	
	Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0				0				0	
	Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB--		0	NB-- 0 SB--		0	NB-- 0 SB--		0		NB-- 0 SB--		0		NB-- 0 SB--		0	
		EB-- 0 WB--		0	EB-- 0 WB--		0	EB-- 0 WB--		0		EB-- 0 WB--		0		EB-- 0 WB--		0	
	ATSAC-1 or ATSAC+ATCS-2?			2			2			2				2				2	
	Override Capacity			0			0			0				0				0	
NORTHBOUND	Left	166	1	**166**	3	169	**169**	0	166	1	**166**	3	169	1	**169**	0	169	1	**169**
	Left-Through		0							0				0				0	
	Through	633	1	337	4	637	339	0	633	1	337	4	637	1	339	0	637	1	339
	Through-Right		1							1				1				1	
	Right	40	0	40	0	40	40	0	40	0	40	0	40	0	40	0	40	0	40
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	41	1	41	3	44	44	0	41	1	41	3	44	1	44	0	44	1	44
	Left-Through		0							0				0				0	
	Through	436	1	**436**	7	443	**443**	0	436	1	**436**	7	443	1	**443**	0	443	1	**443**
	Through-Right		0							0				0				0	
	Right	83	1	45	0	83	45	0	83	1	45	0	83	1	45	0	83	1	45
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	77	1	**77**	0	77	**77**	0	77	1	**77**	0	77	1	**77**	0	77	1	**77**
	Left-Through		0							0				0				0	
	Through	295	1	190	0	295	190	0	295	1	190	0	295	1	190	0	295	1	190
	Through-Right		1							1				1				1	
	Right	85	0	85	0	85	85	0	85	0	85	0	85	0	85	0	85	0	85
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	37	1	37	0	37	37	0	37	1	37	0	37	1	37	0	37	1	37
	Left-Through		0							0				0				0	
	Through	336	1	**192**	5	341	**197**	0	336	1	**192**	5	341	1	**197**	0	341	1	**197**
	Through-Right		1							1				1				1	
	Right	48	0	48	5	53	53	0	48	0	48	5	53	0	53	0	53	0	53
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	CRITICAL VOLUMES	*North-South:*		602	*North-South:*		612	*North-South:*		602		*North-South:*		612		*North-South:*		612	
		East-West:		269	*East-West:*		274	*East-West:*		269		*East-West:*		274		*East-West:*		274	
		SUM:		871	*SUM:*		886	*SUM:*		871		*SUM:*		886		*SUM:*		886	
	VOLUME/CAPACITY *(V/C)* RATIO:			0.581			0.591			0.581				0.591				0.591	
	V/C LESS ATSAC/ATCS ADJUSTMENT:			0.481			0.491			0.481				0.491				0.491	
	LEVEL OF SERVICE (LOS):			A			A			A				A				A	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.010	Δ*v/c* after mitigation:	0.010
Significant impacted?	NO	Fully mitigated?	N/A

EXHIBIT C.2 –

SCEA COMMENTS AND RESPONSE TO COMMENTS

memorandum

date	October 12, 2020
to	Lilian Rubio, City Planning Associate
cc	
from	Jessie Barkley, ICF
subject	7940 North Lankershim Boulevard SCEA – Response to Comment Letters

A Sustainable Communities Environmental Assessment (SCEA) (ENV-2019-808-SCEA) was prepared by the City of Los Angeles (City) in accordance with the California Environmental Quality Act (CEQA), as amended, to evaluate the potential environmental effects associated with implementation of the proposed 7940 North Lankershim Boulevard Project. The SCEA was circulated for public review from August 27, 2020 to September 28, 2020. The City has so far received three (3) comment letters during the public review period from a resident, G.E., (rsosa1976@gmail.com), Alex Campbell, Assistant CEQA Project Manager with the Los Angeles Unified School District (LAUSD), and Miya Edmonson, with the California Department of Transportation (Caltrans).

Each individual comment within the letter is bracketed and numbered (i.e., 1-1, 1-2, etc.) and provided below. Responses to each individual comment raised within the letter are also addressed below. A copy of the original comment letters are attached to this Memo as Attachment 1.

Comment Letter No. 1

G.E.
rsosa1976@gmail.com

Comment No. 1-1

Hello Mrs. Rubio, I would like to voice my opinion against this project. Our neighborhood is overcrowded as it is and our schools don't have the capacity for more children, Further more (sic) this project is geared toward low income families and as unfortunate as this is, low income tends to bring along more families per household meaning more than one parking space will be needed leading to street parking. I work and get home later in the day and my neighborhoods streets are full of vehicles, when family visits on holidays and weekends they have to park at time over two blocks away because of overcrowded streets.

Response No. 1-1

The commenter speculates that the size and type of residential units associated with the Project and the inclusion of affordable units would lead to a lack of street parking in the neighborhood surrounding the Project. As the Project is located within a TPA, pursuant to Public Resources Code (PRC) Section 21099 (d), aesthetic and parking impacts are not considered significant for residential, mixed-use residential, and employment center projects located on an infill site in these areas. Therefore, pursuant to PCR Section 21099 (d), parking impacts for the Project are not significant. The SCEA properly discusses, analyzes, and provides information on all environmental issues that could be impacted by the Project, and no further response on the issue is required.

The Project would provide up to 541 parking spaces (432 residential and 109 commercial parking spaces) in structured parking on the Project Site that would serve the residential and commercial requirements of the Project. The parking for the Project's commercial uses would exceed Los Angeles Municipal Code (LAMC) requirements. LAMC Section 12.24-A.1, requires a parking ratio of two spaces per 1,000 gross square feet of retail, restaurant and other commercial uses. The Project would exceed that requirement and would provide a total of 109 parking spaces. Per incentive allowed under Measure JJJ, LAMC Section 11.5.11-(a)1(ii), the Project includes a request for incentives to provide one parking space per residential unit.

Comment No. 1-2

Another major issue is the letter informing the residents of this plan was sent out in English and the large majority of residents in the area can't even speak English let alone read it. this (sic) should have been done in English and Spanish in the same mailer. This happened also a few years ago when The LA Family Housing project was done at 7843 Lankershim Blvd. This may have helped a few families but damaged our neighborhood with increased homeless, drug addicts, vehicle and home breakings. I urge you to take a drive in our neighborhood before moving forward and seeing for yourself the state on the area.

Response No. 1-2

The commenter states that the noticing related to the Project was provided in English and not in Spanish. This issue does not relate to the sufficiency of the Project's environmental analysis, nor does it indicate that the noticing provided for the Project is contrary to the requirements of the Los Angeles Municipal Code ("LAMC") or state law.

The commenter further speculates that a similar type of noticing related to an adjacent project located at 7843 Lankershim Blvd. has led to a rise in crime in the community. No evidence or information is provided that would substantiate the conclusion that bilingual notices were not provided for that project, that such notices would have led to a particular outcome with respect to the approvals for the separate development project at 7843 Lankershim Blvd., or that the referenced project has caused any increase in crime and substance abuse in the area. Notably, the development project at 7843 Lankershim Blvd., permitted by the City in 2016, is a 49 unit bridge housing, permanent supportive housing, and homelessness service provider which did not require any discretionary City approvals, and thus required no public notice and hearing.

The comment does not raise issues specific to the environmental analysis in the SCEA. However, the comment is noted and will be provided to the decision makers for their consideration.

Comment Letter No. 2

Miya Edmonson**,** IGR/CEQA Branch Chief
California Department of Transportation (Caltrans)
District 7 – Office of Regional Planning
100 S. Main Street, MS 16
Los Angeles, CA 90012

Comment No. 2-1

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-mentioned project's Draft Sustainable Communities Environmental Assessment (SCEA). The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet (SF) and a Floor Area Ratio (FAR) of 3.32:1. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low-Income Households and Very Low-Income Households. Parking would be provided in structured parking located within one subterranean level and one above-ground level.

Response 2-1

This comment is introductory and provides a general description of the Project, and the mission of Caltrans which is to encourage the integration of transportation and land use that reduces VMT and GHG emissions. The comment is noted and will be provided to the decision makers for their consideration.

Comment No. 2-2

Caltrans supports the Transportation Demand Management (TDM) strategies proposed for this project, for additional examples of TDM strategy options please refer to:

- The 2010 Quantifying Greenhouse Gas Mitigation Measures report by the California Air Pollution Control Officers Association (CAPCOA), available at http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, or

- Integrating Demand Management into the Transportation Planning Process: A Desk Reference (Chapter 8) by the Federal Highway Administration (FHWA), available at https://ops.fhwa.dot.gov/publications/fhwahop12035/index.htm.

Response No. 2-2

The commenter provides additional examples of TDM strategy options. The comment does not raise issues specific to the environmental analysis in the SCEA. The comment is noted and will be provided to the decision makers for their consideration.

Comment No. 2-3

After reviewing this project's SCEA, Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities.

Response No. 2-3

The commenter notes that Caltrans does not expect the Project to result in a direct adverse impact to the existing State transportation facilities. The comment is noted and will be provided to the decision makers for their consideration.

Comment No. 2-4

Further information included for your consideration:

Storm water run-off is a sensitive issue for Los Angeles County. Please be mindful that projects should be designed to discharge clean run-off water. Discharge of storm water run-off is not permitted onto State Highway facilities without a storm water management plan.

Response No. 2-4

The commenter notes that projects should be designed to discharge clean run-off water and any discharge of storm water run-off is not permitted onto State Highway facilities without a storm water management plan. As discussed in Section 6.10, *Hydrology and Water Quality* in the SCEA, the Project would be designed to comply with the City of Los Angeles's Low Impact Development (LID) design standard. The proposed stormwater best-management practices (BMP)s would include development of a dry well for stormwater runoff. Project construction would comply with applicable National Pollutant Discharge Elimination System (NPDES) requirements. The comment does not raise issues specific to the environmental analysis in the SCEA. The comment is noted and will be provided to the decision makers for their consideration.

Comment No. 2-5

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods.

Response No. 2-5

The comment does not raise issues specific to the environmental analysis in the SCEA, but rather provides generalized information related to Caltrans permitting and requested hours of transport for oversized vehicles. The Project would comply with any required Caltrans permitting requirements. The comment is noted and will be provided to the decision makers for their consideration.

Comment Letter No. 3

Alex Campbell, Assistant CEQA Project Manager
Los Angeles Unified School District (LAUSD)

Comment 3-1

Presented below are comments submitted on behalf of the Los Angeles Unified School District (LAUSD) regarding the subject project located at 7918-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street. LAUSD is concerned about the potential negative impacts of the project on our students, staff and parents traveling to and from Arminta Elementary School (ES), since the project site is approximately 700 feet west of the school. While COVID-19 has caused LAUSD to implement remote learning for the time being, we request that these comments apply when LAUSD clears students to return to campus. Based on the extent/location of the proposed development, it is our opinion that environmental impacts on the surrounding community (traffic, pedestrian safety) may occur. Since the project may have an environmental impact on LAUSD schools, recommended conditions designed to help reduce or eliminate potential impacts are included in this response.

Response 3-1

The comment is noted. The SCEA included a comprehensive analysis of potential traffic impacts resulting from construction and operation of the Project on nearby sensitive land uses including Arminta Elementary School referenced by the commenter. As a result of the thorough analysis contained within the SCEA, in addition to complying with federal, state and local regulations, the Project has incorporated numerous procedures and measures within Project Design Features (PDF)s and Mitigation Measures (MM). These measures are designed to ensure that any environmental impacts, including to Arminta Elementary School students and staff, would be less than significant. Specific comments raised in this letter are provided under individual responses below.

Comment 3-2

Traffic/Transportation

LAUSD's Transportation Branch **must be contacted** at (213) 580-2950 regarding the potential impact upon existing school bus routes. The Project Manager or designee will have to notify the LAUSD Transportation Branch of the expected start and ending dates for various portions of the project that may affect traffic within nearby school areas. To ensure that effective conditions are employed to reduce construction and operation related transportation impacts on District sites, including the net increase of 1000 or more daily vehicle trips, we ask that the following language be included in the recommended conditions for traffic impacts:

- School buses must have unrestricted access to schools.
- During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students.
- During and after construction changed traffic patterns, lane adjustment, traffic light patterns, and altered bus stops may not affect school buses' on-time performance and passenger safety.

- Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.
- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing vehicle routes to school may be impacted.
- Parents dropping off their children must have access to the passenger loading areas.

Pedestrian Safety

Construction activities that include street closures, the presence of heavy equipment and increased truck trips to haul materials on and off the project site can lead to safety hazards for people walking in the vicinity of the construction site. To ensure that effective conditions are employed to reduce construction and operation related pedestrian safety impacts on District sites, we ask that the following language be included in the recommended conditions for pedestrian safety impacts:

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing pedestrian routes to school may be impacted.
- Contractors must maintain safe and convenient pedestrian routes to all nearby schools. The District will provide School Pedestrian Route Maps upon your request.
- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.
- Haul routes are not to pass by any school, except when school is not in session.
- No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.
- Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.
- Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.
- Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.

Response 3-2

As described and analyzed in Section 6.17, *Transportation* of the SCEA, Project construction would not create a significant transportation or traffic impact for bicyclists, pedestrians, or motorists. Construction activities are expected to be primarily contained within the Project Site boundaries. However, encroachments into the public right-of-way (e.g., sidewalk) adjacent to the Project Site along Strathern Street are anticipated during the one-month period of street dedication improvements. Travel lanes would be maintained in each direction on Lankershim Boulevard and Strathern Street throughout the construction period and emergency access would not be impeded. Per California Vehicle Code 22454, any driver including drivers of construction trucks and other vehicles, would be required to stop when encountering school buses using red-flashing-lights must-stop-indicators.

To further reduce any potential impacts, the SCEA includes a detailed Construction Management Plan (PDF TRAF-1) that includes numerous measures to ensure safety for pedestrians, bicyclists and vehicles during Project construction. The Construction Management Plan would include a prohibition on construction-related vehicles/equipment parking on surrounding public streets, safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers, installation of appropriate traffic signs around the Project Site, spacing of trucks so as to discourage a convoy effect, identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities, and other measures. The Construction Management Plan would be prepared and submitted to the City for review and approval. The Construction Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community.

> **PDF TRAF-4:** The Applicant shall prepare a detailed Construction Management Plan that shall include, but not be limited to, the following elements, as appropriate:
>
> - Prohibition on construction-related vehicles/equipment parking on surrounding public streets.
> - Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
> - Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
> - Installation of appropriate traffic signs around the Project Site to ensure pedestrian, bicycle, and vehicle safety.
> - No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route.
> - Spacing of trucks so as to discourage a convoy effect.
> - Installation of truck crossing signs within 300 feet of the exit of the Project Site in each direction.
> - Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind.

- Securing of loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Cleaning of trucks and loads at the export site to prevent blowing dirt and spilling of loose earth.
- Maintenance of a log documenting the dates of hauling and the number of trips (i.e., trucks) per day available on the job site at all times.
- Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

In addition, to prevent any access to the construction site and ensure safety and minimize cut-through attractions, the Project includes PDF PS-1 which is referenced below:

PDF PS-1: A construction fence shall be constructed around the Project Site to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

In addition, the Project will incorporate the following additions to PDF TRAF-4:

- No less than 30 days prior to the start of construction, the Applicant shall also meet with the administrators of Arminta Elementary School to discuss Project construction, the Construction Management Plan, and provide information regarding the construction relations officer who would serve as the liaison to the community. The Project applicant shall also maintain ongoing contact with the administrators of Arminta Elementary School to inform the school when demolition, grading, construction activities, and any street or sidewalk closures would commence.

The SCEA thus fully analyzes the issue of potential traffic impacts relative to nearby schools, and incudes multiple project design features that would effectively minimize any potential impacts to students and staff, including the new design features added to address concerns raised by LAUSD. The conclusions of the SCEA are supported by substantial evidence and the comment does not ultimately suggest otherwise.

Comment 3-3

The District's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. The comments presented above identify potential environmental impacts related to the proposed project that must be addressed to ensure the welfare of the students attending Arminta ES their teachers and the staff, as well as to assuage the concerns of the parents of these students. However, due to COVID - 19 the school is currently closed, and health and safety concerns are minimized. Therefore, the recommended conditions set forth in these comments should be adopted as conditions of project approval to offset environmental impacts on the affected school students and staff when school is in session.

Response 3-3

As described in the responses above, the SCEA included a comprehensive analysis of potential traffic impacts to nearby sensitive land uses, including Arminta Elementary School, resulting from construction and operation of the Project. Compliance with state and local regulations and incorporation of Project Design Features described above would ensure any impacts would be less than significant. The conclusions of the SCEA are supported by substantial evidence, and nothing in the comment suggests otherwise.

ATTACHMENT 1

Lilian Rubio <lilian.rubio@lacity.org>

ENV-2019-808-SCEA

rsosa1976@gmail.com <rsosa1976@gmail.com> Wed, Sep 9, 2020 at 2:00 PM
To: lilian.rubio@lacity.org

Hello Mrs. Rubio, I would like to voice my opinion against this project. Our neighborhood is overcrowded as it is and our schools don't have the capacity for more children, Further more this project is geared toward low income families and as unfortunate as this is, low income tends to bring along more families per household meaning more than one parking space will be needed leading to street parking. I work and get home later in the day and my neighborhoods streets are full of vehicles, when family visits on holidays and weekends they have to park at time over two blocks away because of overcrowded streets.

Another major issue is the letter informing the residents of this plan was sent out in English and the large majority of residents in the area can't even speak English let alone read it. this should have been done in English and Spanish in the same mailer. This happened also a few years ago when The LA Family Housing project was done at 7843 Lankershim Blvd. This may have helped a few families but damaged our neighborhood with increased homeless, drug addicts, vehicle and home breakings. I urge you to take a drive in our neighborhood before moving forward and seeing for yourself the state on the area.

Sincerely a concerned resident

G. E.

DEPARTMENT OF TRANSPORTATION
DISTRICT 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

September 28, 2020

Lillian Rubio
Department of City Planning
City of Los Angeles
200 N. Spring Street, Room 763
Los Angeles, CA 90012

RE: 7940 Lankershim Boulevard – Draft Sustainable Communities Environmental Assessment (SCEA)
SCH # 2020089026
GTS # 07-LA-2020-03351
Vic. LA-5/PM: 34.907

Dear Lillian Rubio:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-mentioned project's Draft Sustainable Communities Environmental Assessment (SCEA). The Project proposes the development of a seven-story mixed-use development consisting of 432 multi-family residential units and approximately 22,000 square feet of ground floor commercial uses. The project would be approximately 87 feet in height and would include a total square footage of approximately 678,328 square feet (SF) and a Floor Area Ratio (FAR) of 3.32:1. A total of 11 percent of the proposed residential units (48 units) would be designated as restricted affordable housing for Extremely Low-Income Households and Very Low-Income Households. Parking would be provided in structured parking located within one subterranean level and one above-ground level

The mission of Caltrans is to provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability. Therefore, Caltrans encourages the Lead Agency to integrate transportation and land use in a way that reduces VMT and Greenhouse Gas (GHG) emissions, as well as facilitates a high level of non-motorized travel and transit use. We encourage the Lead Agency to evaluate the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications to meet these goals.

Caltrans supports the Transportation Demand Management (TDM) strategies proposed for this project, for additional examples of TDM strategy options please refer to:

- The 2010 Quantifying Greenhouse Gas Mitigation Measures report by the California Air Pollution Control Officers Association (CAPCOA), available at http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf, or

- Integrating Demand Management into the Transportation Planning Process: A Desk Reference (Chapter 8) by the Federal Highway Administration (FHWA), available at https://ops.fhwa.dot.gov/publications/fhwahop12035/index.htm.

• After reviewing this project's SCEA, Caltrans does not expect project approval to result in a direct

adverse impact to the existing State transportation facilities.

Further information included for your consideration:

Storm water run-off is a sensitive issue for Los Angeles County. Please be mindful that projects should be designed to discharge clean run-off water. Discharge of storm water run-off is not permitted onto State Highway facilities without a storm water management plan.

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles on State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods

If you have any questions regarding these comments, please contact project coordinator Reece Allen, at reece.allen@dot.ca.gov and refer to GTS# 07-LA-2020-03351

Sincerely,

MIYA EDMONSON
IGR/CEQA Branch Chief
cc: Scott Morgan, State Clearinghouse

Los Angeles Unified School District

Office of Environmental Health and Safety

AUSTIN BEUTNER
Superintendent of Schools

CARLOS A. TORRES
Director, Environmental Health and Safety

JENNIFER FLORES
Deputy Director, Environmental Health and Safety

September 17, 2020

Lilian Rubio
Los Angeles Department of City Planning
200 North Spring Street, Room 763
Los Angeles, CA 90012

PROJECT LOCATION: 7918-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street
PROJECT: Lankershim Crossing

Presented below are comments submitted on behalf of the Los Angeles Unified School District (LAUSD) regarding the subject project located at 7918-7946 North Lankershim Boulevard and 11650-11664 West Strathern Street. LAUSD is concerned about the potential negative impacts of the project on our students, staff and parents traveling to and from Arminta Elementary School (ES), since the project site is approximately 700 feet west of the school. While COVID-19 has caused LAUSD to implement remote learning for the time being, we request that these comments apply when LAUSD clears students to return to campus.

Based on the extent/location of the proposed development, it is our opinion that environmental impacts on the surrounding community (traffic, pedestrian safety) may occur. Since the project may have an environmental impact on LAUSD schools, recommended conditions designed to help reduce or eliminate potential impacts are included in this response.

Traffic/Transportation

LAUSD's Transportation Branch **must be contacted** at (213) 580-2950 regarding the potential impact upon existing school bus routes. The Project Manager or designee will have to notify the LAUSD Transportation Branch of the expected start and ending dates for various portions of the project that may affect traffic within nearby school areas. To ensure that effective conditions are employed to reduce construction and operation related transportation impacts on District sites, including the net increase of 1000 or more daily vehicle trips, we ask that the following language be included in the recommended conditions for traffic impacts:

- School buses must have unrestricted access to schools.
- During the construction phase, truck traffic and construction vehicles may not cause traffic delays for our transported students.
- During and after construction changed traffic patterns, lane adjustment, traffic light patterns, and altered bus stops may not affect school buses' on-time performance and passenger safety.
- Construction trucks and other vehicles are required to stop when encountering school buses using red-flashing-lights must-stop-indicators per the California Vehicle Code.

- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure vehicular safety.

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing vehicle routes to school may be impacted.

- Parents dropping off their children must have access to the passenger loading areas.

Pedestrian Safety

Construction activities that include street closures, the presence of heavy equipment and increased truck trips to haul materials on and off the project site can lead to safety hazards for people walking in the vicinity of the construction site. To ensure that effective conditions are employed to reduce construction and operation related pedestrian safety impacts on District sites, we ask that the following language be included in the recommended conditions for pedestrian safety impacts:

- Contractors must maintain ongoing communication with LAUSD school administrators, providing sufficient notice to forewarn children and parents when existing pedestrian routes to school may be impacted.

- Contractors must maintain safe and convenient pedestrian routes to all nearby schools. The District will provide School Pedestrian Route Maps upon your request.

- Contractors must install and maintain appropriate traffic controls (signs and signals) to ensure pedestrian and vehicular safety.

- Haul routes are not to pass by ***any*** school, except when school is ***not*** in session.

- No staging or parking of construction-related vehicles, including worker-transport vehicles, will occur on or adjacent to a school property.

- Funding for crossing guards at the contractor's expense is required when safety of children may be compromised by construction-related activities at impacted school crossings.

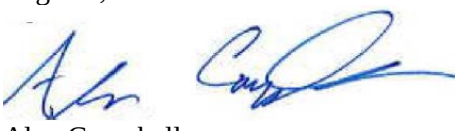
- Barriers and/or fencing must be installed to secure construction equipment and to minimize trespassing, vandalism, short-cut attractions, and attractive nuisances.

- Contractors are required to provide security patrols (at their expense) to minimize trespassing, vandalism, and short-cut attractions.

The District's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. The comments presented above identify potential environmental impacts related to the proposed project that must be addressed to ensure the welfare of the students attending Arminta ES their teachers and the staff, as well as to assuage the concerns of the parents of these students. However, due to COVID - 19 the school is currently closed, and health and safety concerns are minimized. Therefore, the recommended conditions set forth in these comments should be adopted as conditions of project approval to offset environmental impacts on the affected school students and staff when school is in session.

Thank you for your attention to this matter. If you need additional information, please contact me at (323) 286-7377.

Regards,



Alex Campbell
Assistant CEQA Project Manager

EXHIBIT C.3 –

MITIGATION MONITORING PROGRAM (MMP)

Mitigation Monitoring Program

A. Introduction

This Mitigation Monitoring Program (MMP), which is provided below, has been prepared pursuant to Public Resources Code Section 21081.6 which requires adoption of a MMP for projects in which the Lead Agency has required changes or adopted mitigation to avoid significant environmental effects. The City of Los Angeles is the Lead Agency for the proposed 550 Shatto Place Project/Soul Project (Project) and therefore is responsible for administering and implementing the MMP. The decision-makers must define specific reporting and/or monitoring requirements to be enforced during Project implementation prior to final approval of the proposed Project. The primary purpose of the MMP is to ensure that the mitigation measures identified in the Sustainable Communities Environmental Assessment (SCEA) are implemented, thereby minimizing identified environmental effects. The MMP also includes the proposed Project Design Features (PDFs). The PDFs are specific design elements proposed by the Applicant that have been incorporated into the Project to prevent the occurrence of or to minimize the significance of potential environmental effects. Because PDFs have been incorporated into the Project, they do not constitute mitigation measures, as defined by Section 15126.4 of the State CEQA Guidelines (Title 14 of the California Code of Regulations). However, PDFs are included in this MMP to ensure their implementation as a part of the Project.

This MMP shall be enforced throughout all phases of the Project. The Applicant shall be responsible for implementing each project design feature and mitigation measure and shall be obligated to provide certification, as identified below, to the appropriate monitoring agency and the appropriate enforcement agency that each project design feature and mitigation measures has been implemented. The Applicant shall maintain records demonstrating compliance with each project design feature and mitigation measure. Such records shall be made available to the City upon request. Further, specifically during the construction phase and prior to the issuance of building permits, the Applicant shall retain an independent Construction Monitor (either via the City or through a third-party consultant), approved by the Department of City Planning, who shall be responsible for monitoring implementation of project design features and mitigation measures during construction activities consistent with the monitoring phase and frequency set forth in this MMP. The Construction Monitor shall also prepare documentation of the Applicant's compliance with the project design features and mitigation measures during construction every 90 days in a form satisfactory to the Department of City Planning. The documentation must be signed by the Applicant and Construction Monitor and be included as part of the Applicant's Annual Compliance Report. The Construction Monitor shall be obligated to immediately report to the Enforcement Agency any non-compliance with the mitigation measures and project design features within two businesses days if the Applicant does not correct the non-compliance within a reasonable time of

notification to the Applicant by the monitor or if the non-compliance is repeated. Such non-compliance shall be appropriately addressed by the Enforcement Agency.

As shown on the following pages, each required mitigation measure and proposed PDF for the Project is listed and categorized by impact area, with an accompanying identification of the following:

- **Enforcement Agency:** The agency with the power to enforce the Mitigation Measure/Project Design Feature.
- **Monitoring Agency:** The agency to which reports involving feasibility, compliance, implementation and development are made.
- **Monitoring Phase:** The phase of the Project during which the Mitigation Measure/Project Design Feature shall be monitored.
- **Monitoring Frequency:** The frequency at which the Mitigation Measure/Project Design Feature shall be monitored.
- **Action Indicating Compliance:** The action of which the Enforcement or Monitoring Agency indicates that compliance with the required Mitigation Measure/Project Design Feature has been implemented.

B. Project Design Features, Mitigation Measures and Implementation

Aesthetics/Visual Resources

Project Design Features

No Project Design Features are required for Aesthetics/Visual Resources.

Mitigation Measures

No mitigation measures are required for Aesthetics/Visual Resources.

Agricultural and Forest Resources

Project Design Features

No Project Design Features are required for Agricultural and Forest Resources.

Mitigation Measures

No mitigation measures are required for Agricultural and Forest Resources.

Air Quality

PDF-AQ-1: The following measures will be employed by the Project to minimize construction-related emissions:

- All off-road diesel-powered equipment shall be required to meet Tier 4 final off-road emissions standards during all phases of Project construction. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a CARB certified Level 3 Diesel Particulate Filter or equivalent.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 5 minutes. Exceptions to these requirements are identified in 13 California Code of Regulations (CCR) Section 2485(d).
- Provide notification to trucks and vehicles in loading or unloading queues that their engines shall be turned off when not in use for more than 5 minutes.
- Electric equipment shall be used to the extent feasible in lieu of diesel or gasoline-powered equipment.
- All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.
- On-site construction activities shall utilize existing electric power sources to the extent feasible to minimize the use of higher polluting gas or diesel generators.
- Construction activities shall limit the hours of operation of heavy-duty equipment and/or the quantity of equipment in use to the extent feasible.
- During the application of architectural coatings for the new residential, restaurant, and commercial spaces, the Project shall use paints with a VOC content of 10 grams per liter (g/L) or less, which exceeds the regulatory VOC limits put forth by SCAQMD's Rule 1113.
- Sufficient dampening of the construction area shall be conducted as necessary to control dust caused by grading, hauling, and wind.
- Construction personnel shall secure loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Construction personnel shall clean all trucks and loads at the export site to prevent the blowing of dirt and spilling of loose earth.
- A sign shall be posted at the Project Site at a readily visible location that identifies the construction manager and a telephone number for any inquiries or complaints from residents regarding construction activities.

Enforcement Agency: Los Angeles Department of Building and Safety

Monitoring Agency: Los Angeles Department of Building and Safety

Monitoring Phase: Construction

Monitoring Frequency: Periodic field inspections during construction

Action Indicating Compliance: Field inspection sign-off; Compliance certification report by Project contractor

Mitigation Measures

No mitigation measures are required for Air Quality.

Biological Resources

Project Design Features

No Project Design Features are proposed for Biological Resources.

Mitigation Measures

No mitigation measures are proposed for Biological Resources.

Cultural Resources

No Project Design Features are proposed for Cultural Resources.

Mitigation Measures

No mitigation measures are required for Cultural Resources

Energy

Project Design Features

No Project Design Features are proposed for Energy.

Mitigation Measures

No Mitigation Measures are proposed for Energy.

Geology and Soils

Project Design Features

No Project Design Features are proposed for Geology and Soils.

Mitigation Measures

No Mitigation Measures are proposed for Geology and Soils.

Greenhouse Gas Emissions

Project Design Features

PDF-GHG-1:

- The Project shall install energy efficient appliances.
- The Project shall install low-flow plumbing fixtures.
- The Project shall provide 19 short-term and 183 long-term bicycle parking spaces at the Project Site.
- The Project shall plant a total of 117 trees, 15 of which would be street trees, along with native and drought-tolerant vegetation such as shrubs and ground cover.
- The Project shall install solar panels on 15 percent of the rooftop space of the proposed mixed-use building.
- The Project shall install prewiring for electrical vehicle (EV) charging for 30 percent of the total parking spaces provided at the Project Site.
- The Project shall provide EV parking spaces that are installed with chargers and ready for immediate EV use for 10 percent of the total parking spaces provided at the Project Site.
- The Project shall not provide any indoor fireplaces for residential units.
- The Project shall install outdoor power outlets to facilitate the use of electric landscaping equipment for maintaining common areas.
- The Project shall enroll in the organic waste recycling services provided by the solid waste collection service provider and ensure that compostable receptacles will be provided for the multi-family uses to reduce landfilled waste.

Enforcement Agency:	City of Los Angeles Department of Building and Safety; City of Los Angeles Department of City Planning
Monitoring Agency:	City of Los Angeles Department of Building and Safety; City of Los Angeles Department of City Planning
Monitoring Phase:	Pre-construction; Construction
Monitoring Frequency:	Once, at plan check; once during field inspection
Action Indicating Compliance:	Plan approval; issuance of Certificate of Occupancy

Mitigation Measures

No Mitigation Measures are proposed for Greenhouse Gas Emissions.

Hazards and Hazardous Materials

Project Design Features

No Project Design Features are proposed for Hazards and Hazardous Materials.

Mitigation Measures

No Mitigation Measures are proposed for Hazards and Hazardous Materials.

Hydrology and Water Quality

Project Design Features

No Project Design Features are proposed for Hydrology and Water Quality.

Mitigation Measures

No Mitigation Measures are proposed for Hydrology and Water Quality.

Land Use and Planning

Project Design Features

No Project Design Features are proposed for Land Use.

Mitigation Measures

No mitigation measures are required for Land Use.

Mineral Resources

Project Design Features

No Project Design Features are proposed for Mineral Resources.

Mitigation Measures

No mitigation measures are required for Mineral Resources.

Noise and Vibration

Project Design Features

PDF-NOI-1: No pile driving activities or blasting will be allowed at the Project Site during construction.

Enforcement Agency:	Los Angeles Department of City Planning; Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Construction
Monitoring Frequency:	Periodic field inspections
Action Indicating Compliance:	Field inspection; Sign-off within compliance report

PDF-NOI-2: All noise-generating mechanical equipment during Project operations will be equipped with noise-muffling devices or shielding (e.g., enclosures) to minimize noise levels at neighboring properties in accordance with Section 112.02 of the LAMC, 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 5 dBA. The noise control methods that will be implemented by the Project to reduce its mechanical equipment noise levels may include, but will not be limited to:

a) Selecting mechanical equipment designed to produce low noise levels. This includes the mechanical equipment for heating and cooling interior spaces (i.e., HVAC) as well as equipment associated with the swimming pool;

b) Shielding mechanical equipment with screens, acoustical louvers, or other noise barriers; and

c) Installing a parapet wall around the perimeter of the rooftop of the mixed-use building to minimize noise levels from HVAC equipment.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Construction
Monitoring Frequency:	Periodic field inspections
Action Indicating Compliance:	Field inspection; Sign-off within compliance report

PDF-NOI-3: The Project will implement operational restrictions to limit excessive noise generated by residents at the outdoor amenity areas located at the ground floor level, which includes the pool deck and spa, game lounge, outdoor kitchen, BBQ and sitting area, tot lot, community garden, and pet park. Such restrictions will include limiting the hours of use at these outdoor areas to between 7:00 a.m. and 10:00 p.m. (to correspond with the daytime hours specified by the City's noise ordinance), enforcing all applicable capacity limits on the number of residents using each amenity area (for example, as required by fire or safety codes), and restricting the exterior use of amplified music. Building management staff would be required to ensure that operations remain in compliance with the daytime noise limits set forth in the LAMC.

Enforcement Agency:	Los Angeles Department of City Planning; Los Angeles Department of Building and Safety

Monitoring Agency:	Los Angeles Department of City Planning; Los Angeles Department of Building and Safety
Monitoring Phase:	Operation
Monitoring Frequency:	Once, at plan check; once during field inspection
Action Indicating Compliance:	Plan approval; issuance of Certificate of Occupancy

Mitigation Measures

MM NOI-1: The following measures shall be employed during Project construction to reduce short-term noise levels:

a) A 15-foot-high temporary noise barrier with a minimum STC rating of 28 will be erected along the eastern and southern boundaries of the Project Site to provide a minimum of 10 dBA noise attenuation.

b) Equipment staging and laydown areas will be located at the farthest practical distance from nearby residential land uses.

c) High noise-producing construction activities will be scheduled during periods that are least sensitive, such as during daytime hours when neighboring residents are generally away at work.

d) Construction equipment will be fitted with noise-reduction features such as mufflers and engine shrouds that are no less effective than those originally installed by the manufacturer.

e) Stationary construction equipment, such as compressors, will be positioned as far away as practical from adjacent noise-sensitive receptors.

f) All construction equipment not in use will be switched off.

g) Haul trucks will not be allowed to idle for periods greater than 5 minutes, except as needed to perform a specified function (e.g., concrete mixing). Signs will be posted in delivery loading areas specifying this idling restriction.

h) On-site vehicle speeds will be limited to 15 miles per hour or less (except in cases of emergency).

i) Construction-related truck traffic will be routed away from noise-sensitive areas to the extent feasible.

j) Back-up beepers for all construction equipment and vehicles will be broadband sound alarms or adjusted to the lowest noise levels possible, provided that Occupational Safety and Health Administration (OSHA) and California OSHA safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters will be employed.

k) A designated point of contact will be identified to address noise-related complaints during construction. The noise disturbance coordinator will be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler) and will be required to implement reasonable measures such that the complaint is resolved.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Construction
Monitoring Frequency:	Periodic field inspections
Action Indicating Compliance:	Field inspection; compliance certification report submitted by Project contractor

MM NOI-2. A solid wall with a minimum height of 8 feet shall be erected to serve as a noise barrier along the portion of the Project Site's southern boundary where the outdoor amenity areas are located to reduce noise levels at the adjacent off-site single-family residences.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Construction
Monitoring Frequency:	Periodic field inspections
Action Indicating Compliance:	Field inspection; compliance certification report submitted by Project contractor

MM NOI-3: During Project construction the use of large, full-size mobile construction equipment, such as bulldozers, excavators, loaders, etc., shall be prohibited within 25 feet of the existing residential and commercial structures directly adjacent to the Project Site boundary. Instead, small-sized mobile equipment (e.g., Bobcats/skidsteers, compact or mini model versions of bulldozers, excavators, small loaders) shall be used for construction work that needs to take place within this distance to off-site structures during all phases of construction.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Construction
Monitoring Frequency:	Periodic field inspections
Action Indicating Compliance:	Plan check; compliance certification report submitted by Project contractor

Population and Housing

Project Design Features

No Project Design Features are proposed for Population and Housing.

Mitigation Measures

No mitigation measures are required for Population and Housing.

Public Services

Project Design Features

PDF PS-1: A construction fence shall be constructed around the Project Site to minimize trespassing, vandalism, short-cut attractions and attractive nuisances.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency	Los Angeles Department of Building and Safety
Monitoring Phase:	Construction
Monitoring Frequency:	Periodic field inspections during construction
Action Indicating Compliance:	Field inspection sign-off; Compliance certification report by Project contractor

PDF PS-2: Prior to the occupancy of the Project, the Applicant shall provide the Foothill Area Commanding Officer with a diagram of each portion of the property, including access routes, and additional information to facilitate potential LAPD responses.

Enforcement Agency:	Los Angeles Police Department
Monitoring Agency:	Los Angeles Police Department
Monitoring Phase:	Construction
Monitoring Frequency:	Once, prior to certificate of occupancy
Action Indicating Compliance:	Sign-off on LAPD reviewed diagrams; Certificate of Occupancy

Parks and Recreation

No Project Design Features are proposed for Parks and Recreation.

Mitigation Measures

No mitigation measures are required for Parks and Recreation.

Transportation

Project Design Features

PDF TRAF-1

TDM Program. The Project shall develop and implement a TDM program to promote non-auto travel, and reduce the use of single-occupant vehicle trips. The TDM program would be subject to review and approval by the City (Department of City Planning and LADOT). The strategies in the TDM program would include, but are not necessarily limited to, the following:

- **Educational Programs/On-Site Coordinator.** A TDM coordinator would be required to be part of the building management staff that would reach out to employers and employees directly to promote the benefits of the TDM.
- **Transportation Information Center/Kiosk.** The Transportation Information Center would be a centrally-located commuter information center where project residents can obtain information regarding commute programs, and individuals can obtain real-time information for planning travel without using an automobile. A Transportation Information Center would provide information about transit schedules, commute planning, rideshare, telecommuting, and bicycle and pedestrian plans.
- **Project Design Features to Promote Bicycling and Walking.** The Project would incorporate features for bicyclists and pedestrians, such as exclusive access points, secured bicycle parking facilities. Pedestrian improvements internal to the Project Site would encourage walking and connect to off-site pedestrian facilities. Additionally, the Project Site would be designed to be a friendly and convenient environment for pedestrians.
- **Bikeway Improvements.** The Project would contribute funding toward the implementation of bicycle improvements within the Study Area under the 2010 Bicycle Plan and Mobility Plan.
- **Reduced Parking Supply:** Reduced parking supply to provide less parking than the direct LAMC requirement without consideration of additional parking reductions mechanisms (i.e., Bicycle Parking Ordinance, Specific Plan or Enterprise Zone areas, etc.)

Enforcement Agency:	Los Angeles Department of Transportation
Monitoring Agency:	Los Angeles Department of Transportation
Monitoring Phase:	Construction
Monitoring Frequency:	Once prior to issuance of Building Permit; Periodic field inspections during construction
Action Indicating Compliance:	Approval from Los Angeles Department of Transportation; issuance of certificate of occupancy; submittal of compliance report

PDF TRAF-2: Mobility Improvement Program: The mobility improvement plan for the Project would include the following improvements:

- **Installation of Continental (High Visibility) Crosswalks**: The following four study intersections have been identified as locations where continental (high visibility) crosswalks would be installed:

  4. Webb Avenue & Roscoe Boulevard
  6. Laurel Canyon Boulevard & Strathern Street
  9. Vineland Avenue & Strathern Street
  12. Tujunga Avenue & Saticoy Street

The Project would install continental (high visibility) crosswalk markings such as white (standard) or yellow (school) zebra stripes across all four cross segments of an intersection. Additionally, continental (high visibility) crosswalks would include a striped setback limit to reduce the number of vehicles encroaching into the crosswalk.

- **Installation and Maintenance of Sidewalks:** One key corridor has been identified within the Study Area without ADA compliant sidewalks. The north side of Strathern Street between Lankershim Boulevard and Irvine Avenue requires sidewalk installation and maintenance to complete the pedestrian connection. The Project would improve this segment of Strathern Street to include widening, paving, and clearly marking sidewalk and curb space.
- **Installation of Bus Stop Shelters:** The bus stop located on the west side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and 353, would be improved with the installation of a bus stop shelter. This bus stop currently has two benches and transit signage.
- **Installation of Bus Stop Benches**: The bus stop located on the east side of Lankershim Boulevard south of Strathern Street (Intersection #7), which serves Metro Local 224 and Local 353, would be improved with the installation of a bus stop bench. The bus stop currently only provides transit signage.

Enforcement Agency:	Los Angeles Department of Transportation
Monitoring Agency:	Los Angeles Department of Transportation
Monitoring Phase:	Construction
Monitoring Frequency:	Once prior to issuance of Building Permit; Periodic field inspections during construction
Action Indicating Compliance:	Approval from Los Angeles Department of Transportation; issuance of certificate of occupancy; submittal of compliance report

PDF TRAF-3: TSM Improvements. The Project would fund TSM improvements within the Study Area to better facilitate vehicle and pedestrian operations. The TSM improvements would target the Lankershim Boulevard corridor. Based on consultation with LADOT, the following TSM improvements would be implemented:

- Upgrade existing traffic signal controller cabinets to Type 351/2/6/7 cabinets
  - 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
  - 10.Lankershim Boulevard & Stagg Street
  - 11. Lankershim Boulevard & Saticoy Street
- Replacement of existing video fibers with a 24-strand signal mode fiber cable
  - 7. Lankershim Boulevard & Webb Avenue & Strathern Street

- Upgrade existing pedestrian push buttons to accessible pedestrian signals
    - 5. Lankershim Boulevard & Roscoe Boulevard/Tuxford Street
    - 7. Lankershim Boulevard & Webb Avenue & Strathern Street
    - 10. Lankershim Boulevard & Stagg Street
    - 11. Lankershim Boulevard & Saticoy Street.

Enforcement Agency:	Los Angeles Department of Transportation
Monitoring Agency:	Los Angeles Department of Transportation
Monitoring Phase:	Construction
Monitoring Frequency:	Once prior to issuance of Building Permit; Periodic field inspections during construction
Action Indicating Compliance:	Approval from Los Angeles Department of Transportation; issuance of certificate of occupancy; submittal of compliance report

PDF TRAF-4: The Applicant shall prepare a detailed Construction Management Plan that shall include, but not be limited to, the following elements, as appropriate:

- Prohibition on construction-related vehicles/equipment parking on surrounding public streets.
- Safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers shall be implemented as appropriate.
- Scheduling of construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible.
- Installation of appropriate traffic signs around the Project Site to ensure pedestrian, bicycle, and vehicle safety.
- No staging of hauling trucks on any streets adjacent to the Project, unless specifically approved as a condition of an approved haul route.
- Spacing of trucks so as to discourage a convoy effect.
- Installation of truck crossing signs within 300 feet of the exit of the Project Site in each direction.
- Sufficient dampening of the construction area to control dust caused by grading and hauling and reasonable control at all times of dust caused by wind.
- Securing of loads by trimming and watering or covering to prevent the spilling or blowing of the earth material.
- Cleaning of trucks and loads at the export site to prevent blowing dirt and spilling of loose earth.
- Maintenance of a log documenting the dates of hauling and the number of trips (i.e., trucks) per day available on the job site at all times.

- No less than 30 days prior to the start of construction, the Applicant shall also meet with the administrators of Arminta Elementary School to discuss Project construction, the Construction Management Plan, and provide information regarding the construction relations officer who would serve as the liaison to the community. The Project applicant shall also maintain ongoing contact with the administrators of Arminta Elementary School to inform the school when demolition, grading, construction activities, and any street or sidewalk closures would commence.

Identification of a construction manager and provision of a telephone number for any inquiries or complaints from residents regarding construction activities. The telephone number shall be posted at the site readily visible to any interested party during site preparation, grading and construction.

Enforcement Agency:	Los Angeles Department of Building and Safety
Monitoring Agency:	Los Angeles Department of Building and Safety
Monitoring Phase:	Pre-construction; Construction
Monitoring Frequency:	Once prior to issuance of Building Permit; Periodic field inspections during construction
Action Indicating Compliance:	Prior to issuance of Building Permit (Pre-construction); compliance certification report submitted by Project contractor (Construction)

Mitigation Measures

No mitigation measures are required.

Tribal Cultural Resources

Project Design Features

No project design features are required for Tribal Cultural Resources.

Mitigation Measures

No mitigation measures are required for Tribal Cultural Resources.

Utilities and Service Systems

Project Design Features

No project design features are required for Utilities and Service Systems.

Mitigation Measures

No mitigation measures are required Utilities and Service Systems.

Wildfire

No project design features are required for Wildfire.

Mitigation Measures

No mitigation measures are required for Wildfire.