ATTACHMENT NO. 7

SUSTAINABLE COMMUNITIES PROJECT EXEMPTION

THIS REPORT HAS BEEN PREPARED FOR THE MIXED USE DEVELOPMENT PROJECT AT
12727 WASHINGTON BOULEVARD
TRIANGLE CENTER MIXED USE TRANSIT PRIORITY PROJECT

CULVER CITY CASE NOS.: P2021-0103-SPR/DOBI/AUP

Prepared for:

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AUGUST 10, 2022

PLANNING DIVISION

9770 CULVER BOULEVARD, CULVER CITY, CALIFORNIA 90232-0507

Sustainable Communities Project Exemption

CULVER CITY CASE NOS.: P2021-0103-SPR/DOBI/AUP

Project Title: Triangle Center Mixed Use Transit Priority Project

Project Location: 12717-12761 W. Washington Boulevard, Culver City; 3984-3988 S. Meier Street & 12740-12750 W. Zanja Street, Los Angeles

Project Sponsor: Bastion Development Corporation

Project Description: Bastion Development Corporation (the "Applicant") has proposed to redevelop the site located at 12717-12761 W. Washington Boulevard in Culver City and 3984-3988 S. Meier Street, and 12740-12750 W. Zanja Street in Los Angeles (the "Project Site"), with a new mixed-use project (the "Project"). The Project would include two structures, one in Culver City and one in the City of Los Angeles.

A 6-story mixed-use structure that contains two levels of below grade parking, an approximately 19,341-square-foot retail portion on the ground floor fronting Washington Boulevard and Zanja Street, and approximately 104 residential units on levels 2 to 6, would be located in Culver City. In addition, a 5-story structure that contains two levels of below grade parking and approximately 40 residential units located on levels 1 to 5 would be located in the City of Los Angeles. The portion of the Project located in Culver City would have a maximum height of up to approximately 67 feet. The portion of the Project located in Los Angeles would have a maximum height of up to approximately 57 feet. The Project would set aside a total of 19 of the residential units as affordable units.

The Applicant is seeking a Site Plan Review approval pursuant to Culver City Municipal Code Section 17.540 and incentives under the City's Mixed-Use Ordinance and Density Bonus Ordinance, Culver City Municipal Code Sections 17.580 and 17.400.065, allowing a total of 104 units to be constructed in Culver City within a six-story, 67 foot tall building. The Applicant is also seeking a waiver of setback requirements under the Density Bonus Ordinance from the R3-zoned, City of Los Angeles portion of the Project Site.

APPLICANT:	PREPARED BY:	PREPARED FOR:
Bastion Development Corporation 11955 W. Washington Blvd. #103 Culver City, CA 90066	Meridian Consultants LLC 910 Hampshire Rd., Ste. A5 Westlake Village, CA 91361	Culver City Planning Division 9770 Culver Blvd. Culver City, CA 90232

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SUSTAINABLE COMMUNITIES PROJECT EXEMPTION CHECKLIST RESPONSES

1.0 INTRODUCTION

Senate Bill (SB) 375 coordinates land use and transportation planning to reduce greenhouse gas emissions from mobile uses. Further, SB 375 amends the California Environmental Quality Act (CEQA) to add implementation of the Sustainable Communities Strategy (SCS), which provides for a CEQA exemption for certain projects, including a special class of Transit Priority Project (TPP) determined to be a Sustainable Communities Project (SCP) (California Public Resources Code [PRC] Sections 21155 & 21155.1).

To qualify for the CEQA exemption, a TPP must meet eight environmental criteria, seven land use criteria, and at least one criterion related to affordable housing or public open space.

2.0 PROJECT INFORMATION

Project Title:	Triangle Centre Mixed-Use Transit Priority Project
Lead Agency Name and Address:	Culver City, 90012, 9770 Culver Blvd., Culver City, CA 90232
Responsible Agency Name and Address:	City of Los Angeles, Department of City Planning, 200 N. Spring St., Room 721 Los Angeles, CA 90012
Project Location:	12717-12761 West Washington Boulevard, Culver City 3984-3988 S. Meier Street & 12740-12750 W. Zanja Street, Los Angeles
Project Sponsor's Name:	Bastion Development Corporation
Contact Person and Phone Number:	Kevin Read
General Plan Designation:	General Corridor Commercial (Culver City) Medium Residential (Los Angeles)
Zoning:	R3-1 (Multiple Residential) and within Los Angeles Coastal Transportation Corridor & Transit Priority Area (Los Angeles) General Commercial (Culver City)
Assessor Parcels:	4236-020-030 (Los Angeles) & 4236-020-001 (Culver City)

3.0 DESCRIPTION OF PROJECT

The Triangle Centre Mixed-Use Project (Proposed Project) is generally located at 12727 West Washington Boulevard within both Culver City and Los Angeles (Project Site). The Project Site is generally located west of Interstate (I) 405, south of Venice Boulevard, north of State Route 90, and east of Pacific Coast Highway, as shown in **Figure 1: Regional Vicinity Location**. The approximate 1.32-acre Project Site is

primarily located in Culver City, with the remainder of the Project Site located in Los Angeles on the corner of West Washington Boulevard, Zanja Street, and Meier Street, as shown in **Figure 2: Project Site Aerial**. Specifically, the Project Site is located within the Palms-Mar Vista-Del Rey Community Plan Area.[1] For purposes of entitlement approvals, Culver City will be the Lead Agency for the Proposed Project and Los Angeles will be a Responsible Agency.

The Proposed Project would provide for a mixed-use development consisting of ground-level community serving, commercial retail uses with market rate, and affordable housing units above. As shown in **Figure 3: Conceptual Site Layout**, the Proposed Project would include 144 residential units, of which 19 would be affordable, and approximately 19,431 square feet of commercial space fronting West Washington Boulevard and Zanja Street. Approximately 30,941 square feet of open space and 3,740 square feet of landscaping would also be included through the Proposed Project. Parking spaces would be provided in two levels of below grade parking and on the ground floor.

The Proposed Project would include the development of two buildings: a 6-story mixed-use building with two levels of subterranean parking within Culver City and a 5-story building with two levels of subterranean parking within Los Angeles. The total residential and common area building square footage of the Proposed Project would be approximately 167,625 square feet, with approximately 106,570 square feet in Culver City and approximately 41,624 square feet in Los Angeles. The portion of the Project located in Culver City would include approximately 19,431 square feet of commercial uses. The floor to area ratio (FAR) for the Proposed Project would be 3.7 in Culver City and 2.5 in the City of Los Angeles. As proposed, the Project would include approximately 130,319 square feet of residential uses above the main floor, approximately 15,487 square feet of common area, 19,012 square feet of retail uses, and 419 square feet of lobby space on the ground floor. The Proposed Project would include 234 parking spaces, with 28 spaces at ground level and 206 spaces provided in a two-level subterranean garage. The Proposed Project would also include four retail bicycle parking spaces, six short-term residential bicycle parking spaces, 54 long-term bicycle parking spaces, and five non-residential bicycle parking spaces.

The proposed 6-story, approximately 126,001-square-foot mixed-use structure in Culver City, would include ground-level commercial and five floors of residential units above (floors 2-6), approximately 67 feet in height. The residential units would total 104 units, of which 16 units would be affordable housing. Residential units would consist of micro, studio, one-bedroom, one bedroom with den, two-bedroom, and two-bedroom with den units. The affordable housing units will be designated as very low-income units. The commercial space would be approximately 19,431 square feet and would front along West Washington Boulevard and Zanja Street.

The proposed 5-story, approximate 41,624-square-foot residential structure in Los Angeles, would be approximately 56 feet in height. The residential units would total 40 units, of which three would be very

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1 Los Angeles City Planning, Palms-Mar Vista-Del Rey Community Plan, accessed July 2022, https://planning.lacity.org/plans-policies/community-plan-area/palms-mar-vista-del-rey.

low-income restricted units. Residential units would be a mix of studio, one-bedroom, and two-bedroom units.

As part of the Proposed Project, two highway dedications would be provided. The Project would provide a three-foot dedication along Meier Street and a fifteen-foot dedication at the corner of Zanja Street, as well as Meier Street. A five-foot side yard dedication requirement along Zanja Street and a two-and-a-half-foot alley dedication requirement would be waived.

The Project site located within the City of Culver City is designated as General Corridor Commercial and zoned as General Commercial. The portion of the Project site located within the City of Los Angeles is designated as Medium Residential and zoned as R3-1 (Multiple Residential), and is within Los Angeles Coastal Transportation Corridor & Transit Priority Area. The Project Site is in an urbanized area and contains an existing commercial building located on the western side of the Project Site, vacant land located on the northeastern corner adjacent to West Washington Boulevard which contained the former 99 Cent Discount building, and associated parking lots. The surrounding area is developed with commercial and residential uses. The Project Site includes 20 private property and 9 rights-of-way trees throughout the Site and along Zanja and Meier Streets.[2]

3.1 Surrounding Land Uses and Project Site Designation

The Project site located within the City of Culver City is designated as General Corridor Commercial and zoned as General Commercial. The portion of the Project site located within the City of Los Angeles is designated as Medium Residential and zoned as R3-1 (Multiple Residential), and is within Los Angeles Coastal Transportation Corridor & Transit Priority Area.

As shown on **Figure 2**, surrounding properties within a 500-foot radius of the Project Site are developed as follows:

North: Zanja Street, multifamily residential uses.

South: Washington Boulevard, commercial (e.g., Marina Dental Care) and multifamily residential uses.

East: Washington Boulevard, commercial uses (e.g., Blue Oak Creative Schoolhouse [APN 4236-020-019]), and multifamily residential uses.

West: Meier Street, multifamily residential uses.

As stated above, the Project Site is surrounded by mostly residential uses located behind commercial uses along Washington Boulevard. Additionally, further southwest of the Project Site, south of Washington Boulevard and east of Lincoln Boulevard, there is a tract with a Light Manufacturing land use designation.

[2] Carlberg Associates, West Washington Boulevard Tree Report, December 10, 2019. See **Appendix P.**

4.0 CHECKLIST RESPONSES

4.1 Transit Priority Project Criteria:

SB 375 provides CEQA streamlining benefits to qualifying Transit Priority Projects (TPPs). For purposes of projects in the SCAG region and as defined by PRC Sections 21155(a) and (b), a project must meet the following requirements to qualify as a TPP:

1. The project is consistent with the land use designation, density, zoning, building intensity, and applicable policies in an approved sustainable community strategy (SCS) or alternative planning strategy (APS).

   ☒ Yes ☐ No

Consistency with SCS or APS:

General Use Designation

For Los Angeles County region, the Southern California Association of Governments (SCAG) updates its Regional Transportation Plan (RTP) and Sustainable Communities Strategy (RTP/SCS) every 4 years to ensure that the State target for greenhouse gas (GHG) emissions reduction is achieved at the regional level. Culver City and Los Angeles collaborate with SCAG and provide input throughout the development of the RTP/SCS to ensure consistency in goals, policies, and implementation. The most recent version is the 2020-2045 RTP/SCS, titled *Connect SoCal*. On May 7, 2020, SCAG's Regional Council adopted *Connect SoCal* and certified the EIR for federal transportation conformity purposes only. In light of the COVID-19 pandemic, the Regional Council considered approval of *Connect SoCal* in its entirety and for all other purposes on September 3, 2020. SCAG submitted the GHG reduction targets associated with the 2020—2045 SCS to CARB for concurrence. The SCS prepared as part of *Connect SoCal* meets the requirements of SB 375 by achieving GHG emission reductions at 8 percent below 2005 per capita emissions levels by 2020 and 19 percent below 2005 per capita emissions levels by 2035.

The Project is consistent with the general land use designation, density, and building intensity in the 2020–2045 RTP/SCS. The Project Site for the Culver City area is identified as "Retail Stores and Commercial Services" and within the Los Angeles area as "Multiple Residential," as shown in **Attachment B: SCAG General Plan Land Use Designations**. Using data collected from local jurisdictions, including general plans, SCAG categorized existing land use into land use types, combined the land use types into 35 Place Types, and then classified subregions into one of three Land Use Development Categories (LDCs): Urban, Compact, or Standard. 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.[3] **Attachment C**: **Forecasted Westside Cities Regional Development Types (2040)** is a map of the forecasted land use patterns within the

[3] Southern California Association of Governments (SCAG), SoCal Connect, 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy *[RTP/SCS] (September 2020)*, accessed July 2022, https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal-plan_0.pdf?1606001176.

Westside Cities and **Attachment D: Forecasted Los Angeles Subregion Regional Development Types (2040)** is a map of the forecasted land use patterns within the Los Angeles Subregion.[4]

The LDCs defined in the 2020-2045 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 2020-2045 RTP/SCS.[5] [6] The 2020-2045 RTP/SCS states that transportation analysis zone (TAZ)-level data was developed for modeling purposes only and that the growth and land use assumptions actually utilized by SCAG for the 2020-2045 RTP/SCS are derived from broader jurisdictional level sources (such as all of the areas of the Westside Cities and Los Angeles), and not sub-geographies (such as the Culver City or the Palms-Mar Vista-Del Rey Community Plan area). Accordingly, the SCAG Forecasted Regional Development Types by Land Development Categories (2040) Maps and the Land Use Pattern Map—SCAG Region 2040, Policy A, were used in the SCP Exemption Checklist Responses to describe the general conditions likely to occur within the Project area with implementation of the 2016—2040 RTP/SCS.[7]

Due to the scale and level of detail of the RTP/SCS maps, the Project Site is located in an area that is within the range of "Compact" LDC to "Urban" LDC. After converting this data into Scenario Planning Zone–level Place Types, and due to the fact that the location of the Project is located very near the blended boundary between the Compact LDC and Urban LDC, SCAG categorized the area surrounding the Project as a "Compact" area.[8] The 2020-2045 RTP/SCS defines Compact areas as:

Less intense than Urban LDC, but highly walkable with rich mix of retail, commercial, residential and civic uses. Most likely to occur as new growth on the urban edge, or large-scale redevelopment. Rich mix of housing, from multifamily and attached single family (townhome) to small- and medium-lot single family homes. Well served by regional and local transit service, but may not benefit from as much service as urban growth, and is less likely to occur around major multimodal hubs. Streets are

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4 As identified by the 2016—2040 RTP/SCS: SCS Background Documentation Appendix.

5 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020). Pg 45, accessed June 2022, https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_sustainable-communities-strategy-appendix.pdf?1606002108.

6 With regard to the use of LDC and transportation analysis zone (TAZ) level data, the 2020-2045 RTP/SCS states the following: "SCAG develops the TAZ-level socioeconomic data using diverse public and private sources of data … and advanced estimation methods. TAZ-level household and employment projections are controlled to the jurisdictional level projections, meaning that the sum total of households and employment of all the TAZs within a jurisdiction equals the jurisdiction-level growth projections. TAZ-level data or any data at a geography smaller than the jurisdictional-level has been utilized to conduct required modeling analyses and is therefore advisory only and non-binding, given that sub-jurisdictional forecasts are not adopted as part of Connect SoCal. TAZ-level data may be used by jurisdictions in local planning as they deem appropriate, and Connect SoCal does not supersede or otherwise affect local jurisdiction authority or decisions on future development, including entitlements and development agreements." 2020-2045 RTP/SCS, SCAG, September 2020, page xiv.

7 SCAG, *2016 RTP/SCS, SCS Background Documentation*, p. 4.

8 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study,* (September 2020).

well connected and walkable, and destinations such as schools, shopping and entertainment areas can typically be reached via a walk, bike, transit or short auto trip.[9]

In addition to the Compact LDC described above, the Urban LDC is also described in detail below. The 2020-2045 RTP/SCS defines Urban areas as:

Often found within and directly adjacent to moderate and high density urban centers. Virtually all 'Urban' growth would be considered infill or redevelopment. The majority of housing units are multifamily and attached single family (townhome), which tend to consume less water and energy than the larger types found in greater proportion in less urban locations. These areas are supported by high levels of regional and local transit service. Well-connected street networks and the mix of intensity of uses result in a highly walkable environment. Enhanced access and connectivity for people who choose not to drive or do not have access to a vehicle.

As noted on the RTP/SCS map, the Lead Agency has the authority to determine a project's consistency with the 2020 RTP/SCS, and the LDC designation on the map is considered advisory and non-binding on any site geographically smaller than a jurisdiction or sub-region, due to the fact that the SCAG data is for the purpose of making a regional projection. For these reasons, and for purposes of analyzing potential consistency with SCAG policies in this checklist, the discussion below focuses on the Project's consistency with the Compact and Urban LDC.

The Compact LDC is defined as "highly walkable with a rich mix of retail, commercial, residential and civic uses. These areas are most likely to occur as new growth on the urban edge, or as large-scale redevelopment." The Urban LDC is defined as "infill or redevelopment. The majority of housing units are multifamily…, which tend to consume less water and energy than the larger types found in greater proportion in less urban locations. These areas are supported by high levels of regional and local transit service. Well-connected street networks and the mix and intensity of uses result in a highly walkable environment." The Project is located within a High Quality Transit Area (HQTA) as defined by SCAG.[10] The Project Site is also partially located within a Transit Priority Area (TPA) (as defined by SB 743) on the north eastern edge of the parcels located within the City of Culver City and the City of Los Angeles.[11] Each of these designations supports transit opportunities and promotes a walkable environment, as shown in **Attachment E: SCAG High Quality Transit Area (HQTA)—2016 with 2045** and **Attachment F: SCAG Transit Priority Area (TPA)—Year 2016 with 2045**.

A TPA refers to an area within one-half mile 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

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9 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study,* (September 2020).

10 SCAG, "High Quality Transit Areas (Plan Year 2045),"accessed June 2022, https://gisdata-scag.opendata.arcgis.com/datasets/high-quality-transit-areas-hqta-2045-scag-region/explore?location=34.149082%2C-117.742800%2C8.67.

11 SCAG, "Transportation Priority Areas (Plan Year 2045),"accessed June 2022, https://gisdata-scag.opendata.arcgis.com/datasets/transit-priority-areas-plan-year-2045-scag-region/explore?location=34.156350%2C-118.170650%2C8.99.

Improvement Program or applicable regional transportation plan.[12] A "major transit stop" is defined as an existing rail or bus rapid transit station, a ferry terminal served by 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.[13]

The Project would meet the definition of a TPA as stated above. Transportation options within the vicinity of the Project include bus stops along Washington Boulevard traveling east and west. Bus transportation within the Project vicinity would be provided by Culver City Bus Lines 1 and 2, City of Los Angeles Metro Line 33, and Santa Monica Big Blue Bus Lines 14 and 16. Culver City Bus Line 1, Metro Line 33, and Big Blue Bus Line 14 would service the Project Site with a frequency of service intervals of 15 minutes or less during the morning and afternoon peak commute periods. Additionally, the Culver City Bus Line 2 and Big Blue Bus Line 16 also run near the Project Site with less frequency. Culver City Line 1 – Washington Boulevard runs east to west from Washington Boulevard and Fairfax Avenue to Venice Beach. This line operates seven days a week. Culver City Line 2 – Lincoln Boulevard is a weekday community circulator connecting Washington and Lincoln Boulevards with the Westfield Culver City Mall and Corporate Pointe. It also intersects with Metro lines and Santa Monica's Big Blue Bus lines. Metro Line 33 travels from downtown Santa Monica to downtown Los Angeles, traveling through Culver City and West Los Angeles. Big Blue Bus Lines 14 and 16 travel east to west from West Los Angeles to Marina Del Rey through Santa Monica, Venice, and Mar Vista. Big Blue Bus Line 14 operates seven days a week while Line 16 operates during the week only.

The Project will maximize mobility and accessibility for all people and goods in the region, ensure travel safety and reliability for all people and goods in the region, and protect the environment and health of residents by improving air quality and active transportation. Additionally, the Project area is supported by high levels of regional and local transit, and the Project will provide structured parking which conforms to the classifications of the Compact and Urban LDC. The Project is also consistent with the Compact and Urban LDC goals of transit connectivity and well-connected street networks associated with multifamily housing. Finally, per SCAG, an HQTA and TPA is defined as an area within one-half mile from major transit stops and high-quality transit corridors. Per California Public Resources Code Section 21064.3, a major transit stop is a site containing an existing rail transition station 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 period. Given the Project's location within an HQTA and TPA, the Project will encourage the utilization of transit as a mode of transportation to and from the Project area. Therefore, the Project is consistent with the goals in the SCAG RTP/SCS, as outlined in **Attachment G: 2020—2045 Regional Transportation Plan/Sustainable Communities Strategy Consistency Analysis.**

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[12] California Public Resources Code (CPRC), Section 21099 (a)(7).

[13] CPRC, Section 21064.3.

Density and Building Intensity

The Project is consistent with the range of Place Types within the "Urban" and "Compact" land development categories. The 2020-2045 RTP/SCS describes the following Place Types which most characterize the Project and are discussed below.

City Residential areas are:

Dense residential-focused type dominated by mid- and high-rise residential towers, with some ground-floor retail space. Parking is usually structured, below or above ground. Residents are well served by transit, and can walk or bicycle for many of their daily needs.[14]

The land use mix for this place type is typically approximately 65 percent residential, 4 percent employment, 11 percent mixed use, and 20 percent open space/civic. The residential mix is 97 percent multifamily and 3 percent townhome. The average total net FAR ratio is 2.9; the number of floors ranges from 5 to 40; and gross density ranges from 35 to 75 households per acre.[15]

City Mixed Use areas are:

Transit-oriented and walkable, and contain a variety of uses and building types. Typical buildings are between 5 and 30 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured below or above ground.[16]

The land use mix for this place type is typically approximately 28 percent residential, 17 percent employment, 35 percent mixed use, and 20 percent open space/civic. The residential mix is 97 percent multifamily and 3 percent townhome. The average total net FAR ratio is 3.4; the number of floors ranges from 3 to 40; and gross density ranges from 10 to 75 households per acre.[17]

Town Mixed Use areas are:

Walkable mixed-use neighborhoods, such as the mixed-use core of a small city or transit oriented development, with a variety of uses and building types. Typical buildings are between 3 and 8 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Arking is usually structure, above or below ground. Transit-oriented and walkable, and contain a variety of uses and building types. Typical buildings are between 5 and 30 stories tall, with ground-floor retail space, and offices and/or residences on the floors above. Parking is usually structured below or above ground.[18]

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14 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020).

15 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020).

16 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020).

17 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020).

18 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020).

The land use mix for this place type is typically approximately 26 percent residential, 20 percent employment, 29 percent mixed use, and 25 percent open space/civic. The residential mix is 100 percent multifamily. The average total net FAR ratio is 1.9; the number of floors ranges from 2 to 8; and gross density ranges from 7 to 35 households per acre.[19]

The Project consists of a 6-story, mixed-use multifamily and commercial retail development, with two levels of subterranean parking within Culver City, and 5-story multifamily building with two levels of subterranean parking within the City of Los Angeles. The land uses within the general vicinity of the Project Site are characterized by a mix of multifamily uses, mixed-use buildings, and commercial buildings along the West Washington Boulevard corridor.

The Proposed Project would provide for a mixed-use development consisting of ground-level community serving, commercial retail uses with market rate, and affordable multifamily housing units within two buildings. Specifically, the Proposed Project would include 144 multifamily residential units, of which 19 would be affordable, and approximately 19,431 square feet of commercial space fronting on West Washington Boulevard and Zanja Street. Approximately 30,941 square feet of open space and 3,740 square feet of landscaping would also be included. Thus, the Proposed Project would consist of approximately 87 percent residential uses and common area, approximately 12 percent retail space, and approximately 19 percent open space. The FAR for the Proposed Project would be 3.7 in Culver City and 2.5 in the City of Los Angeles for an average of 3.1. Parking spaces would be provided in two levels of below grade parking and on the ground floor. The residential units would be 100 percent multifamily and the density would be 109 households per acre. As described below, the Project will be at least 15 percent more energy efficient than Title 24 standards; moreover, the building and landscaping are designed to achieve 25 percent less water usage than the average household in the region. Therefore, the Project is consistent with the range of Place Types within the "Compact" land development category.

2. The project contains at least 50% residential use, based on total building square footage and, if the project contains between 26–50% nonresidential uses, a floor area ratio of not less than 0.75.
   ☒ Yes ☐ No

The Project would include the construction of 144 multifamily residential units, of which 19 would be affordable multifamily residential units, within approximately 130,319 square feet and approximately 19,431 square feet of retail on the ground floor. The total building area of the Project would be approximately 167,625 square feet. As proposed, the total Project Site would consist of approximately 87 percent residential uses and 13 percent nonresidential uses with an average FAR of 3.1. Therefore, the Proposed Project is consistent with this criterion.

19 SCAG, *2020 RTP/SCS Sustainable Communities Strategy Technical Study, Appendix 1: SPM PlaceTypes*, (September 2020).

3. The project provides a minimum net density of at least 20 dwelling units per acre.
   ☒ Yes ☐ No

The mixed-use Project would contain a total of 144 residential dwellings between the two buildings and 19 would be affordable housing units. The Project Site is approximately 1.32 acres in size. Accordingly, the Project would have a density of approximately 109 dwellings per acre. Therefore, the Project would provide a net density greater than 20 dwellings per acre.

4. The project is located within ½ mile of a major transit stop (e.g., rail station, ferry terminal served by either a bus or rail transit service, or intersection of two or more major bus routes with service intervals of 15 minutes or less during peak commute hours) or a high-quality transit corridor (i.e., a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours).
   ☒ Yes ☐ No

The Project Site is located within the HQTA and High-Quality Transit Corridor (HQTC), as designated in the 2020-2045 RTP/SCS, as shown in **Attachment E** and **Attachment F**.[20] The Project Site is also located within a TPA, as identified by the City of Los Angeles.[21] The Metro Line 33 and Big Blue Bus Line 14 provide service frequencies up to 15 minutes during peak times. Additionally, Culver City Lines 1 and 2 and Santa Monica Big Blue Bus Line 16 would service the Project Site with greater frequencies than 15-minute service intervals during peak hours.

5. All parcels within the project have no more than 25% of their area farther than ½ mile from the stop or corridor.
   ☒ Yes ☐ No

All parcels for the Project are within 0.50 miles of a major transit stop or HQTC, as shown in **Attachment E** and **Attachment F**.[22]

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20 SCAG, "High Quality Transit Areas in the SCAG Region (2045),"accessed July 2022, https://gisdata-scag.opendata.arcgis.com/datasets/43e6fef395d041c09deaeb369a513ca1/explore?location=34.149054%2C-117.742800%2C8.66.

21 SCAG, "Transit Priority Areas (Plan Year 2045)", accessed July 2022, https://gisdata-scag.opendata.arcgis.com/datasets/transit-priority-areas-plan-year-2045-scag-region/explore.

22 SCAG, "High Quality Transit Areas in the SCAG Region (2045),"accessed July 2022, https://gisdata-scag.opendata.arcgis.com/datasets/43e6fef395d041c09deaeb369a513ca1/explore?location=34.149054%2C-117.742800%2C8.66.

6. No more than 10% of the residential units or 100 units, whichever is less, in the project are farther than ½ mile from the stop or corridor.

   ☒ Yes ☐ No

The Project is a compact development that would locate all residential units within 0.50 miles of the major transit stop and HQTC, as shown in **Attachment E** and **Attachment F**.[23]

Pursuant to California PRC Section 21155.1, a transit priority project that meets the following criteria is declared to be a SCP that is exempt from CEQA.

4.2 Environmental Criteria

1. The project and other approved projects not yet built can be adequately served by existing utilities, and the applicant has paid, or has committed to pay, all applicable in-lieu or development fees.

   ☒ Yes ☐ No

The Project would connect to existing utility infrastructure, including water mains, sewer lines, storm drain inlets, and electrical and gas lines (refer to **Attachment H: Will Serve Letters**).

Water in Los Angeles comes from a network that delivers water from a variety of sources, including Los Angeles Aqueducts, local groundwater, and supplemental water purchased from the Metropolitan Water District of Southern California (MWD). The water from MWD is delivered through the Colorado River Aqueduct and the State Water Project's California Aqueduct.[24] Much of the water flows north to south, entering Los Angeles at Los Angeles Aqueduct Filtration Plant (LAAFP) in Sylmar, which is owned and operated by Los Angeles Department of Water and Power (LADWP). The LAAFP has the capacity to treat approximately 600 million gallons per day (mgd). The average plant flow is approximately 450 mgd during the non-summer months and 550 mgd during the summer months, and operates at between 75 and 90 percent capacity. Therefore, the LAAFP has a remaining capacity of treating approximately 50 to 150 mgd, depending on the season.[25]

Water service to the Project Site would continue to be supplied by the LADWP via existing 6-inch water lines in Zanja Street and Meier Street. The Project is estimated to consume approximately 33,942 gallons per day (gpd) of water, which is below available capacity.[26] As previously mentioned, the Project would

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23 SCAG, "High Quality Transit Areas in the SCAG Region (2045)," accessed July 2022, https://gisdata-scag.opendata.arcgis.com/datasets/43e6fef395d041c09deaeb369a513ca1/explore?location=34.149054%2C-117.742800%2C8.66.

24 Los Angeles Department of Water and Power (LADWP), "Water: Sources of Supply" (2013), accessed July 2022, https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-sourcesofsupply;jsessionid=CWbJZSpT3LHFzmQpC1GXVk8C5XdJGWmmVzFpcHT4m92DGchysvFL!-1404888909?_adf.ctrlstate=1b53vxi3v8_4&_afrLoop=815404078505502&_afrWindowMode=0&_afrWindowId=null#%40%3F_afrWindowId%3Dnull%26_afrLoop%3D815404078505502%26_adf.ctrlstate%3D1b53vxi3v8_4%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dssq7indr_4.

25 LADWP, accessed July, https://www.ladwp.com.

26 Estimated water demand was based on 120 percent of the wastewater generation factors for residential and commercial categories.

reduce water usage by 25 percent when compared to the average household in the region. The Project would be consistent with projections in the Urban Water Management Plan.[27]

Sewer service will be provided to the Project Site by utilizing either the existing 8-inch sewer line in Meier Street or the 12-inch sewer line in Zanja Street. Wastewater from the Project Site would then be conveyed and treated at the Hyperion Treatment Plant (HTP), which is located on a 144-acre site adjacent to Santa Monica Bay. The HTP is the largest wastewater treatment facility in Los Angeles and has an average dry-weather design treatment capacity of 450 mgd; currently, HTP treats an average daily flow of approximately 275 mgd.[28] There are ongoing construction projects to ensure service remains available to all of the residents in Culver City and Los Angeles. Therefore, adequate wastewater treatment capacity within the system exists, and any increase in wastewater generation would not have a significant impact on treatment plant capacity. The Project would not result in or require the construction of a new wastewater treatment facility.[29]

The Project would be required to comply with the County's Low Impact Development Standards Manual,[30] which promotes water infiltration systems, evapotranspiration, and reuse of stormwater. The Project Site would not increase runoff to the existing Culver City storm drain system which has sufficient capacity to meet stormwater runoff from the Project. Therefore, the Project would not require construction or upgrades of the existing stormwater drainage facilities.[31]

Electrical service to the Project would be provided by Southern California Edison (SCE), which serves residences, businesses and other uses the area. The SCE planning area used approximately 103,597 GWh of electricity in 2020.[32] To meet such needs as well as future needs, SCE reported having an installed net dependable generation capacity greater than 24,340 peak megawatts (MW) in 2021.[33] SCE is fully resourced to meet peak demand but maintains transmission and wholesale marketing operations to keep production costs low and increase system reliability. SCE's energy division projections show adequate capacity to provide electricity to meet the Project's demand. The Project, when operational, is projected

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27 LADWP, 2020 Urban Water Management Plan, accessed July 2022, https://www.ladwp.com/cs/groups/ladwp/documents/pdf/mdaw/nzyy/~edisp/opladwpccb762836.pdf.

28 City of Los Angeles, LA Sanitation, accessed July 2022, https://www.lacitysan.org/san/faces/wcnav_externalId/s-lsh-wwd-cw-p-hwrp?_adf.ctrl-state=s0xvbzlrz_10&_afrLoop=15015935897187917#!..

29 Estimated wastewater generation would be approximately 28,285 gallons per day.

30 County of Los Angeles Department of Public Works, "Low Impact Development, Standards Manual, (February 2014), accessed July 2022, https://dpw.lacounty.gov/ldd/lib/fp/Hydrology/Low%20Impact%20Development%20Standards%20Manual.pdf.

31 County of Los Angeles Department of Public Works, "Los Angeles County Storm Drain System," accessed July 2022, http://dpw.lacounty.gov/fcd/stormdrain/index.cfm.

32 California Energy Commission (CEC), *California Energy Consumption Database,* "Electricity Consumption by Planning Area," accessed July 2020, http://ecdms.energy.ca.gov/elecbyplan.aspx.

33 CEC, *Electricity and Natural Gas Demand Forecast: Docket Number 17-IEPR-03,* April 2018, accessed July 2022, https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=17-IEPR-03.

to consume electricity in an amount equal to less than 0.03 percent of the SCE's projected excess production.[34] SCE would be able to adequately serve the Project with its existing and projected capacity.

The Project would be provided natural gas service by the Southern California Gas Company (SoCalGas), which serves the area. An extreme peak day demand is defined as a 1-in-35 likelihood event for a services area. Under an average-temperature condition and a normal hydro year, gas demand for the state was projected to average 5,205 million cubic feet of gas per day (MMcf/d) in 2020, decreasing to 4,343 MMcf/d by 2035, a decline of 1.2 percent per year.[35] The total storage withdrawn in 2021 was projected to be 2,597 MMcfd. Thus, there would be a remaining capacity of 578 MMcfd on extreme peak days. According to the *2020 California Gas Report,* SoCalGas's storage and flowing supplies are sufficient to meet the forecasted 2021 retail core peak day demand. Demand on an extreme peak day is met through a combination of withdrawals from underground storage facilities and flowing pipeline supplies. Based on consumption and capacity projections generated by the California Public Utilities Commission, the Project would be adequately served by SoCalGas. The Project's estimated annual energy consumption for natural gas would be approximately 1.48 million British Thermal Units per year.[36] Given that the Project would not use natural gas in a wasteful or inefficient manner and that energy conservation measures would be implemented, the consumption of natural gas would be within the remaining SoCalGas storage capacity.

The Project would pay all applicable in-lieu or development fees pursuant to code requirements and conditions.

2. a. *The project site does not contain wetlands or riparian areas and does not have significant value as a wildlife habitat.*

☒ Yes ☐ No

The Project Site is in an urbanized area and contains an existing commercial building located on the western side of the Project Site, vacant land located on the northeastern corner adjacent to West Washington Boulevard (previously contained the former 99 Cent Discount building, which was destroyed by fire in 2020), and associated parking lots. The surrounding area is developed with commercial and residential uses.

A review of the National Wetland Inventory provided by the US Fish and Wildlife Service (USFWS) indicated that no wetlands or riparian areas are located on the Project Site.[37] No blue-line streams are found on the Project Site, nor is the Project Site located near a body of water or a river. Thus, the Project Site

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34 CalEEMod estimation of 831,568 kilo-watt hours per year.

35 California Gas and Electric Utilities, *2020 California Gas Report*, 101, accessed July 2022, https://www.socalgas.com/regulatory/cgr.

36 CalEEMod estimation of 1.48 million British Thermal Units per year.

37 USFWS, "National Wetlands Inventory," accessed July 2022, https://www.fws.gov/wetlands/.

does not contain any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by California Department of Fish and Wildlife (CDFW) or USFWS.

b. The project does not harm any species protected by the federal Endangered Species Act, the Native Plant Protection Act, or the California Endangered Species Act.

☒ Yes ☐ No

The CDFW's California Natural Diversity Database and USFWS's Critical Habitat data were reviewed, and it was determined that the site does not have records of any federally or State-protected species on site pursuant to the federal and State Endangered Species Acts or the Native Plant Protection Act.[38]

The Project Site contains several nonnative ornamental street trees as part of the existing landscaping. No native trees or habitat types are found on the Project Site. The trees on the Project Site are not considered protected by the City of Culver City and Los Angeles tree ordinances.

The Project Site does not contain any suitable habitat for protected species, and the West Los Angeles and North Culver City area in which the Project is located are not known for high occurrences of the protected animal and plant species.

Therefore, the Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species protected by the federal or State Endangered Species Acts, the Native Plant Protection Act, or City of Culver City or Los Angeles code.

c. The project does not cause the destruction or removal of any species protected by a local ordinance in effect at the time the application for the project was deemed complete.

☒ Yes ☐ No

Several ornamental trees are located on site. The City of Culver City does not have an ordinance protecting trees located on private property. None of these trees are protected under the City of Los Angeles tree ordinances as described in the Tree Report completed by Carlberg Associates in December 2019 for the Project (see **Attachment P: Tree Report**). City of Culver protects right-of-way trees only, none of which fall within the Project Site Area.[39] However, the removal of any street trees, regardless of protection status, is required to be reported pursuant to both local ordinances. The portion of the Project Site within the jurisdiction of Culver City would follow removal and replacement of trees pursuant to City of Culver Municipal Code Chapter 17.310.[40] For the City of Los Angeles, street trees as well as protected trees could not be removed without prior approval of the Board of Public Works/Urban Forestry (BPW) under LAMC Sections 62.161 – 62.171.[41] The Project Site does not contain, and therefore the

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38 USFWS, *BIOS*, accessed July 2022, https://apps.wildlife.ca.gov/bios/.

39 Carlberg Associates, *West Washington Boulevard Tree Report*, December 10, 2019.

40 The City of Culver Municipal Code, Chapter 17.310, "Landscaping."

41 City of Los Angeles Municipal Code (LAMC), Chapter VI, Article 2, Sections 62.161 – 62.171.

proposed Project would not result in, the destruction or removal of any protected trees under either City of Los Angeles or Culver City ordinances.

3. The project site is not included on any list of facilities and sites compiled pursuant to Section 65962.5 of the Government Code.

   ☒ Yes ☐ No

Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC), State Department of Health Services, State Water Resources Control Board, and local enforcement agencies to compile and update as appropriate, at least annually, the Cortese List of contaminated sites and to submit the list to the Secretary of Environmental Protection for consolidation and distribution. The Hazardous Waste and Substances Sites List is a planning document used by the State, local agencies, and developers to comply with CEQA requirements with respect to providing information about the location of hazardous materials release sites.

As part of the Preliminary Endangerment Assessment (PEA) prepared by EDI Consultants on October 2019 for the Project (see **Attachment I: Preliminary Endangerment Assessment**), per PRC Section 21155.1(a)(4), an Environmental Data Resources database search for the Project Site was conducted. The database search included a review of databases and files from federal, State, and local environmental agencies to identify use, generation, storage, treatment, disposal of hazardous materials and chemicals, or release incidents of such materials that may impact the Project Site. In addition to the database search, the PEA included a Phase I (completed October 2015) and Phase II (completed November 2018) report attached as supplemental information, also completed by EDI Consultants. These reports indicate that the Project Site is not located on the Cortese List.

4. a. The project site is subject to a preliminary endangerment assessment prepared by an environmental assessor to determine the existence of any release of a hazardous substance on the site and to determine the potential for exposure of future occupants to significant health hazards from any nearby property or activity.

   ☒ Yes ☐ No

As noted, a PEA was conducted for the Project (see **Attachment I**). The PEA found that the Project Site is not included in any federal, State, or local environmental agency list that identifies the use, generation, storage, treatment, or disposal of hazardous materials and chemicals, nor release incidents of such materials which may impact the Project Site.

As indicated in the Phase I and Phase II reports, the Project Site was formerly occupied by several dry-cleaning tenants. These types of operations indicate the potential for releases of contaminants of concern to the environment. The historical use generated hazardous waste on-site, and the former dry-cleaning use is a historical recognized environmental condition (HREC) for the Project Site.

As stated in the Phase II report prepared by EDI on October 2017, subsurface investigations were performed in 2017 and included a total of eleven soil borings in the vicinity of the former dry cleaner tenant which reportedly occupied the 12755-12759 tenant spaces from the late 1980s to early 2000s. A

total of sixteen soil vapor samples were collected during the assessment and submitted for analysis of Volatile Organic Compounds (VOCs). Groundwater was not detected within any of the borings at the Project Site to a maximum exploration depth of 7 feet. During this subsurface investigation, the laboratory results of four soil vapor samples collected during the limited subsurface investigation indicated tetrachloroethene (PCE) ranged between 0.14 microgram per liter (µg/L) to 0.91 µg/L to a maximum depth of 4 feet below ground surface (bgs). Concentration levels of PCE detected in the four (4) soil vapor samples exceeded the DTSC-modified Screening Levels for soil vapor of 0.46 µg/L of PCE in residential settings and did not exceed the Screening Levels of 2.0 µg/L of PCE in commercial/industrial settings, but if untreated they would exceed the action levels for residential uses.

Excavation activities associated with the Project would excavate to approximately 26 feet below ground surface for subterranean parking and building foundations. This excavation includes excavation for subterranean garages where PCE contamination was detected at the Project Site. Thus, the proposed excavation of the Project Site for the garages would excavate and remove the detected PCE contamination, which was not detected more than 4 feet bgs. With compliance with existing regulations (i.e., federal Resource Conservation and Recovery Act, the California Health and Safety Code and associated regulations, SCAQMD rules, including SCAQMD Rule 1166, California Division of Occupational Safety and Health regulations, etc.) that would apply to construction at the Site, which include requiring sampling including VOC sampling with air monitors, profiling, and appropriate disposal of any VOC contaminated soils, the Project's impacts with the respect to exposures of workers and future residents to VOC contamination is less than significant. In addition, in accordance with SB 375 requirements, the Project would incorporate required hazards and hazardous waste measures from the 2020—2045 RTP/SCS (see **Attachment K: Southern California Association of Governments 2020 Regional Transportation Plan/Sustainable Communities Strategy EIR Applicable Mitigation Measures**). In addition, post construction, residential uses at the location where PCE was detected in shallow soils would be separated from native soil by a concrete slab and two levels of subterranean concrete parking structure. With proposed Project exaction, regulatory compliance requirements, and additional hazards-related measures from the 2020—2045 RTP/SCS incorporated, the Project would not result in the exposure of future occupants to significant health hazards. No other VOCs were detected in any of the remaining soil vapor samples submitted for analysis and the Phase I did not identify any other RECs at the Site that were determined to warrant further investigation.

b. If a release of a hazardous substance is found to exist on the site, the release shall be removed, or any significant effects of the release shall be mitigated to a level of insignificance in compliance with State and federal requirements.

☒ Yes ☐ No ☐ Not Applicable

The Project Site currently comprises an urbanized area and contains an existing commercial building, the former 99 Cent Discount structure, and associated parking lots. No known hazardous materials are on the Project Site except for PCE from prior dry-cleaning tenants (see **Attachment I**).

As indicated in in Section 4.a, above, environmental impacts associated with the actionable levels of PCE discovered in shallow soils at the Site in the location of a former onsite dry-cleaning operation would be reduced to a less than significant level though the Project's proposed excavation for the garage, regulatory compliance requirements, and the implementation of project-specific hazards-related measures from the 2020—2045 RTP/SCS.

Should any additional unforeseen hazardous materials be encountered during demolition, excavation, and construction of the Project, the Project would be required to comply with the applicable regulations from State-level agencies, such as DTSC, in conjunction with federal agencies, such as the Occupational Safety and Health Administration and the US Environmental Protection Agency, concerning the removal, abatement, and transport procedures. Demolition activities are permitted by the Department of Public Works Building and Safety Division and other regulatory agencies, including the South Coast Air Quality Management District. Additionally, as indicated, construction-related activities associated with the Project would incorporate hazards and hazardous waste measures from the 2020-2045 RTP/SCS (see **Attachment K**). With regulatory compliance and incorporation of the 2020-2045 RTP/SCS hazards measures, the Project would not result in the exposure of future occupants to significant health hazards.

As indicated in the final asbestos report for the Project Site, (see **Attachment I**), no asbestos was detected in samples from the Project Site location. Federal, State, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos. Standard protocols would be adopted to minimize the risk associated with the hazardous materials and wastes.

c. *If a potential for exposure to significant hazards from surrounding properties or activities is found to exist, the effects of the potential exposure shall be mitigated to a level of insignificance in compliance with State and federal requirements.*

☒ Yes ☐ No ☐ Not Applicable

The Project Site is surrounded by commercial uses, multifamily residential uses, and some childcare uses. As detailed above, the Project would not result in the exposure of future occupants to significant health hazards nor would it pose a risk to surrounding uses or the associated population during excavation activities associated with the subterranean parking structure, regulatory compliance, and appropriate measures adopted per the 2020—2045 RTP/SCS. According to Environmental Data Resources Inc.'s report in the PEA and Phase I ESA, additional properties are listed within identified hazardous material databases within the search radius. However, as identified in the PEA and Phase I report, based on the fact that such sites were listed for tracking purposes only, their distance from the Project Site, their hydraulic location with respect to anticipated groundwater flow, and/or case closure, these off-site properties are unlikely to represent a concern of environmental impairment or a vapor encroachment condition to the Project Site. Accordingly, the surrounding parcels contain no known hazardous materials or activities that would result in exposure potential hazards in a manner that would result in a potential significant impact for the Project (see **Attachment I**).

5. The project does not have a significant effect on historical resources pursuant to section 21084.1.
   ☒ Yes ☐ No

The Project Site does not contain any historical resources listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) or included in a local register of historical resources pursuant to section 21084.1. Additionally, the Project Site is not listed on the City of LA's SurveyLA database.[42] The nearest listed historical resource provided by SurveyLA is Venice High School located approximately 500 feet west of the Project Site.

The Project Site is hardscaped with minimal landscaping and includes a commercial structure with a parking lot and a vacant paved lot where a commercial building once stood. As indicated in the Cultural Resources Investigation conducted by PaleoWest Archeology (see **Attachment L: Architectural Plan Set**), no historic resources were identified within the Project Site.[43] The structure at 12753 West Washington Boulevard was constructed in 1958. The structure was documented and evaluated for eligibility for listing on the CRHR. Based on evaluation against the CRHR Evaluation criteria, the structure is recommended not eligible for listing. Additionally, the structure is not recommended eligible as a Los Angeles Historic-Cultural Monument. As such, demolition and construction would not affect or alter any historical resources.

6. The Project site is not located in:

   a. The project site is not subject to a wildland fire hazard.

   ☒ Yes ☐ No

The Project Site is not subject to a wildland fire hazard because the Project Site is not located in a Very High Fire Hazard Severity Zone.[44] The Project Site is located within a developed urban area and no wildlands are present in the surrounding area.

   b. The project site is not subject to an unusually high risk of fire or explosion from materials stored or used on nearby properties.

   ☒ Yes ☐ No

No land uses from the surrounding properties exist that may pose unusually high risk or explosion from materials stored or used.

   c. The project site is not subject to the risk of a public health exposure at a level that would exceed the standards established by any State or federal agency.

   ☒ Yes ☐ No

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42 Los Angeles City Planning, Historic Resources Surveys, accessed June 2022, https://planning.lacity.org/preservation-design/historic-resources-survey.

43 PaleoWest Archaeology, *Cultural Resource Investigation in Support of the Triangle Centre Mixed Use Project*, Los Angeles County, California, December 6, 2019.

44 CalFire, Fire Hazard Severity Zones (FHSZ) Map, accessed July 2022, https://egis.fire.ca.gov/FHSZ/.

As detailed above, the Project would not result in the exposure of future occupants to significant health hazards, as identified in the PEA (see **Attachment I**), with the inclusion of PCE detected in shallow soils at the Site, which would be safely removed under the proposed excavation for the Project garage in accordance with applicable regulatory requirements and appropriate measures adopted from the 2020—2045 RTP/SCS. According to the Phase I ESA, the potential for asbestos containing materials (ACMs) does not pose a health and safety concern to the occupants at this time. Prior to the disturbance of any suspect ACM at the Project Site, a comprehensive survey, designed to determine if the suspect materials are regulated, is recommended. If ACM are identified and need to be disturbed, repaired, or removed, a licensed abatement contractor should be consulted. Suspect ACM could also be managed under an Operations and Maintenance Plan (OMP). The Project Site is also not within a Methane Hazard area.[45] Should any additional unforeseen hazardous materials be encountered during demolition, excavation, or construction, the Project would be subject to applicable federal, State, and local programs, regulations, laws, standards, policies, and would incorporate the 2020-2045 RTP/SCS hazards measures.

d. The project site is not within a delineated earthquake fault zone or a seismic hazard zone unless the general plan or zoning ordinance contains provisions to mitigate the risk of an earthquake fault or seismic hazard zone.

☒ Yes ☐ No

According to the Geotechnical Engineering Investigation prepared for the Project, no known Holocene-active or Pre-Holocene faults underlie the Project Site.[46] In addition, the Site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the Project Site is considered low as described in the Geotechnical Investigation conducted by Geotechnologies, Inc., in February 2020 for the Project (see **Appendix N: Geotechnical Investigation**).

No active faults are known to pass through the immediate Project vicinity.[47] The Project is located approximately 2.7 miles east of the nearest known earthquake fault zones.

The Project is not located in a potential liquefaction zone.[48] The Project would be designed and constructed in accordance with the requirements of the California Building Code (CBC). The CBC establishes minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress from facilities, and general stability by regulating and controlling

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45 Geotechnical Engineering Investigation, prepared by Geotechnologies, Inc., February 2020, see **Appendix N**.

46 Geotechnical Engineering Investigation, prepared by Geotechnologies, Inc., February 2020, see **Appendix N**.

47 California Department of Conservation, California Geological Survey, accessed July 2022, https://maps.conservation.ca.gov/cgs/EQZApp/app/.

48 City of Culver City, Seismic Hazards Map, 2007.

the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures within its jurisdiction.

In addition to compliance with the CBC, the Project is subject to the provisions of the Seismic Hazards Mapping Act, which requires the implementation of feasible design measures that would be used to address seismic hazards, depending on the results of the site-specific geotechnical studies. Required compliance with the CBC and compliance with the provisions of the Seismic Hazard Mapping Act would ensure that potential impacts from strong seismic ground shaking would be less than significant.

Therefore, the Project's seismic risks would be less than significant.

e. The project site is not subject to landslide hazard, flood plain, flood way, or restriction zone, unless the general plan or zoning ordinance contains provisions to mitigate the risk of a landslide or flood.

☒ Yes ☐ No

The potential for landslide hazards on the Project Site is considered low because the site is located in areas of relatively flat topography (see **Appendix N**). According to the City of Culver City Seismic Hazards map, the Project Site is not located within a landslide hazard zone.[49]

The Project Site is not delineated in a flood plain according to any Federal Emergency Management Agency Flood Insurance Rate Map (FIRM), or in a floodway or restricted in the zone for landslide or flood, including the 100-year flood zone.[50] As such, the Project does not place within a 100-year floodplain housing that would impede or redirect flood flows.

7. The project site is not located on developed open space.

☒ Yes ☐ No

As defined in PRC Section 211551.(a)(7)(A), "developed open space" is defined as land that is (1) publicly owned or financed in whole or in part by public funds; (2) generally open to, and available for use by, the public; and (3) predominantly lacking in structural development other than structures associated with open spaces, including playgrounds, swimming pools, ballfields, enclosed child play areas, and picnic facilities. In addition, as defined in PRC Section 21155.1(a)(7)(B), land that has been designated for acquisition by a public agency for developed open space does not include lands acquired with public funds dedicated to the acquisition of land for housing purposes.

The current City of Culver City General Plan land use designation for the Project Site is Community Commercial and Multifamily for Los Angeles. The current zoning designation for the Project Site is

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49 City of Culver City, Seismic Hazards Map, 2007.

50 Federal Emergency Management Agency, *National Flood Hazard Layer*, accessed July 2022, https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-118.23836387329095,33.77837767553277,-118.16523612670902,33.81404123833648.

General Commercial for Culver City and Medium Residential for Los Angeles. The Project Site does not contain any parcels for zoning of open space, parks, or other open space public recreational facilities or uses.

Further, the Project Site is currently private property that has historically been used for retail commercial uses and is being acquired and developed for a mixed-use residential and commercial use. Therefore, the Project Site is not developed open space.

8. Project buildings are 15% more energy efficient than required by Title 24 (California Building Standards Code) and the buildings and landscaping are designed to achieve 25% less water usage than the average household use in the region.
   ☒ Yes ☐ No

The Project would comply with CEQA Section 21155.1. The Project would be designed to achieve or exceed 15 percent or more energy efficiency standards as outlined in Chapter 6 of Title 24 in the California Code of Regulations, as identified in the Energy and Water Efficiency Compliance Report prepared for the Project by Hellman & Lober, Inc., for the Project in July 2022 (see **Attachment J: Title 24 Efficiency Report)**. Further, the proposed buildings and landscaping would be designed to achieve 25 percent less water usage than the average household in the area.

The energy efficiency requirement would be achieved through the installation/use of features such as Energy Star kitchen appliances, including refrigerators and dishwashers; Energy Star washing machines; air barriers at exterior wall assembly; high-performing clad wood windows with low-E double glazing and operable shading; high-efficiency heating, ventilation, and air conditioning units with zoned thermostatic control; and green energy through photovoltaics.[51]

The water efficiency requirement would be achieved through the installation/use of features such as low-flow fixtures for bathrooms, including toilets, sink faucets, and shower heads; low-flow fixtures for kitchens, including dishwashers and sink faucets; front-loading washing machines, and low-flow irrigation systems.[52]

4.3 Land Use Criteria

1. The project site is not more than eight acres in total area.
   ☒ Yes ☐ No

The Project Site is approximately 1.32 acres and would be less than 8 acres in total area.

[51] Energy and Water Efficiency Compliance Report, prepared by Hellman & Lober, Inc., July 2022, see **Appendix J**.

[52] Energy and Water Efficiency Compliance Report, prepared by Hellman & Lober, Inc., July 2022, see **Appendix J**.

2. The project does not contain more than 200 residential units.
   ☒ Yes ☐ No

The Project consists of 144 residential units between both buildings and would not contain more than 200.

3. The project does not result in any net loss in the number of affordable housing units within the project area.
   ☒ Yes ☐ No

The Housing Crisis Act of 2019, as amended by SB 8 (California Government Code Section 66300 et seq.), prohibits the approval of any proposed housing development project ("Project") on a site ("Property") that will require demolition of existing dwelling units or occupied or vacant "Protected Units" unless the Project replaces those units as specified below. The replacement requirements below apply to the following projects:[53]

- Discretionary Housing Development Projects that receive a final approval from Los Angeles City Planning (LACP) on or after January 1, 2022.
- Ministerial On-Menu Density Bonus, SB 35 and AB 2162 Housing Development Projects that submit an application to LACP on or after January 1, 2022.
- Ministerial Housing Development Projects that submit a complete set of plans to the Los Angeles Department of Building & Safety (LADBS) for Plan Check and permit on or after January 1, 2022.

The Project Site comprises an urbanized area and contains an existing commercial building, the former 99 Cent Discount structure, and associated parking lots. As such, no existing housing would be removed to construct the Project Site. The Project would not result in any net loss of affordable housing units.

4. The project does not include any single level building that exceeds 75,000 square feet.
   ☒ Yes ☐ No

The Project consists of 2 buildings: a 6-story, mixed-use commercial retail, and a 5-story residential structure. The Proposed Project would include 234 parking spaces, 28 spaces at ground level, and 206 spaces provided in a two-level subterranean garage.

The Project Site is approximately 57,342 square feet, or approximately 1.32 acres, which is less than the 75,000 square feet. Additionally, each of the levels proposed within the two buildings would not exceed approximately 28,000 square feet in size.

Therefore, the Project would not have single level that exceeds 75,000 square feet.

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53 Los Angeles Housing Department, SB 8 Determinations, accessed July 2022, https://housing.lacity.org/partners/sb-8-determinations.

5. Any applicable mitigation measures or performance standards or criteria set forth in the prior environmental impact reports have been or will be incorporated into the project.

☒ Yes ☐ No ☐ None

The Project incorporates certain mitigation measures identified in the SCAG 2020-2045 RTP/SCS Program EIR, which are determined to be appropriate means of reducing the Project's potential environmental impacts consistent with the requirements of the SB 375 statutory exemption (see **Attachment K**). The mitigation measures from the City of Culver City General Plan Program EIR and the City of Los Angeles General Plan Framework Element EIR are applicable to the Project; however, they need not be incorporated into the Project because these measures are substantively equivalent to standard conditions and regulations already required by the City.

6. The project is determined not to conflict with nearby operating industrial uses.

☒ Yes ☐ No

The Project Site is surrounded by multifamily residential uses to the north, commercial (e.g., Marina Dental Care) and multifamily residential uses to the east, commercial uses (e.g., Blue Oak Creative Schoolhouse [APN 4236-020-019]), multifamily residential uses to the south, and multifamily residential uses to the west.

There are no operating industrial uses within the Project Site. As indicated in **Attachment B**, surrounding general plan land uses include Commercial and Services to the southwest, south, and north, and Multifamily Residential to the north and northeast. Additionally, further southwest of the Project Site, south of Washington Boulevard and east of Lincoln Boulevard, there is a tract with a Light Manufacturing Land Use Designation. No industrial land uses are identified in the vicinity of the Project Site.

7. The project is located within ½ mile of a rail transit station or a ferry terminal or within ¼ mile of a high-quality transit corridor included in a regional transportation plan.

☒ Yes ☐ No

As mentioned earlier, the Project Site is located within the HTQA and HQTC in the SCAG's RTP 2020-2045, as shown in in **Attachment E** and **Attachment F**. The Project Site is also located within a TPA, as identified by the City Los Angeles.[54] Three bus lines: Culver City Line 1, Los Angeles Metro Line 33, and Santa Monica Big Blue Bus Line 14 would service the Project Site with a frequency of service intervals of 15 minutes or less during the morning and afternoon peak commute periods. Additionally, the Culver City Line 2 and Big Blue Bus Line 16 also run near the Project Site with less frequency.

54 City of Los Angeles, Department of City Planning, *ZIMAS and Zoning Information File No. 2452*. Accessed December 2020. http://zimas.lacity.org/.

8. The project meets at least one of the following three criteria:

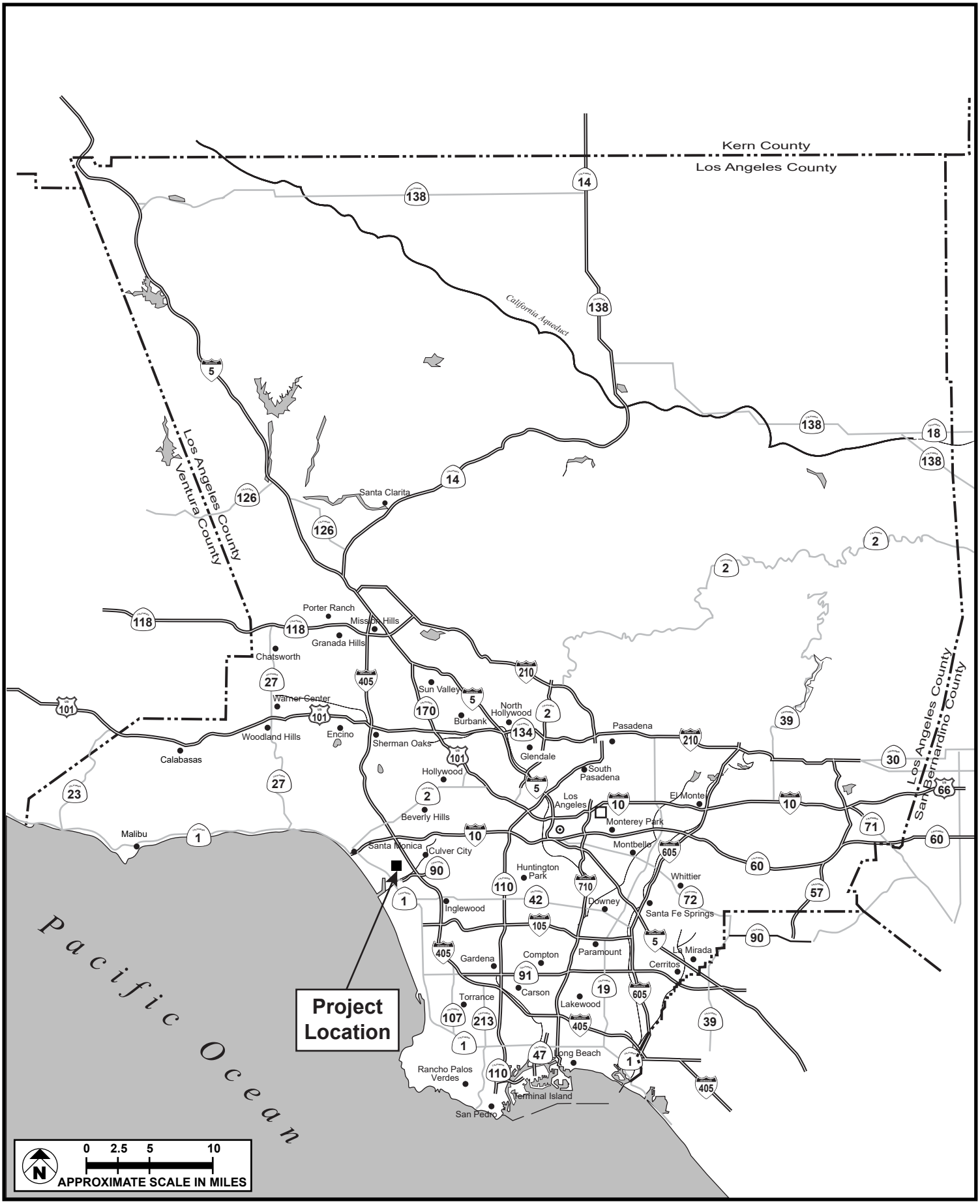
   a. *At least 20% of the housing will be sold to families of moderate income, or not less than 10% of the housing will be rented to families of low income, or not less than 5% of the housing is rented to families of very low income. The project developer provides sufficient legal commitments to the appropriate local agency to ensure the continued availability and use of the housing units for very low, low-, and moderate-income households at monthly housing costs with an affordable housing cost or affordable rent, as defined in Section 50052.5 or 50053 of the Health and Safety Code, respectively, for the period required by the applicable financing. Rental units shall be affordable for at least 55 years. Ownership units shall be subject to resale restrictions or equity sharing requirements for at least 30 years.*

   b. *The project developer has paid or will pay in-lieu fees pursuant to a local ordinance in an amount sufficient to result in the development of an equivalent number of units that would otherwise be required pursuant to paragraph (a).*

   c. *The project provides public open space equal to or greater than five acres per 1,000 residents of the project.*

      ☒ Yes ☐ No

The Project would provide greater than 10 percent of housing be rented to families of low income, consistent with subdivision (a).



SOURCE: Meridian Consultants, LLC - 2022

FIGURE **1**

Meridian Consultants

Regional Vicinity Location

163-003-19

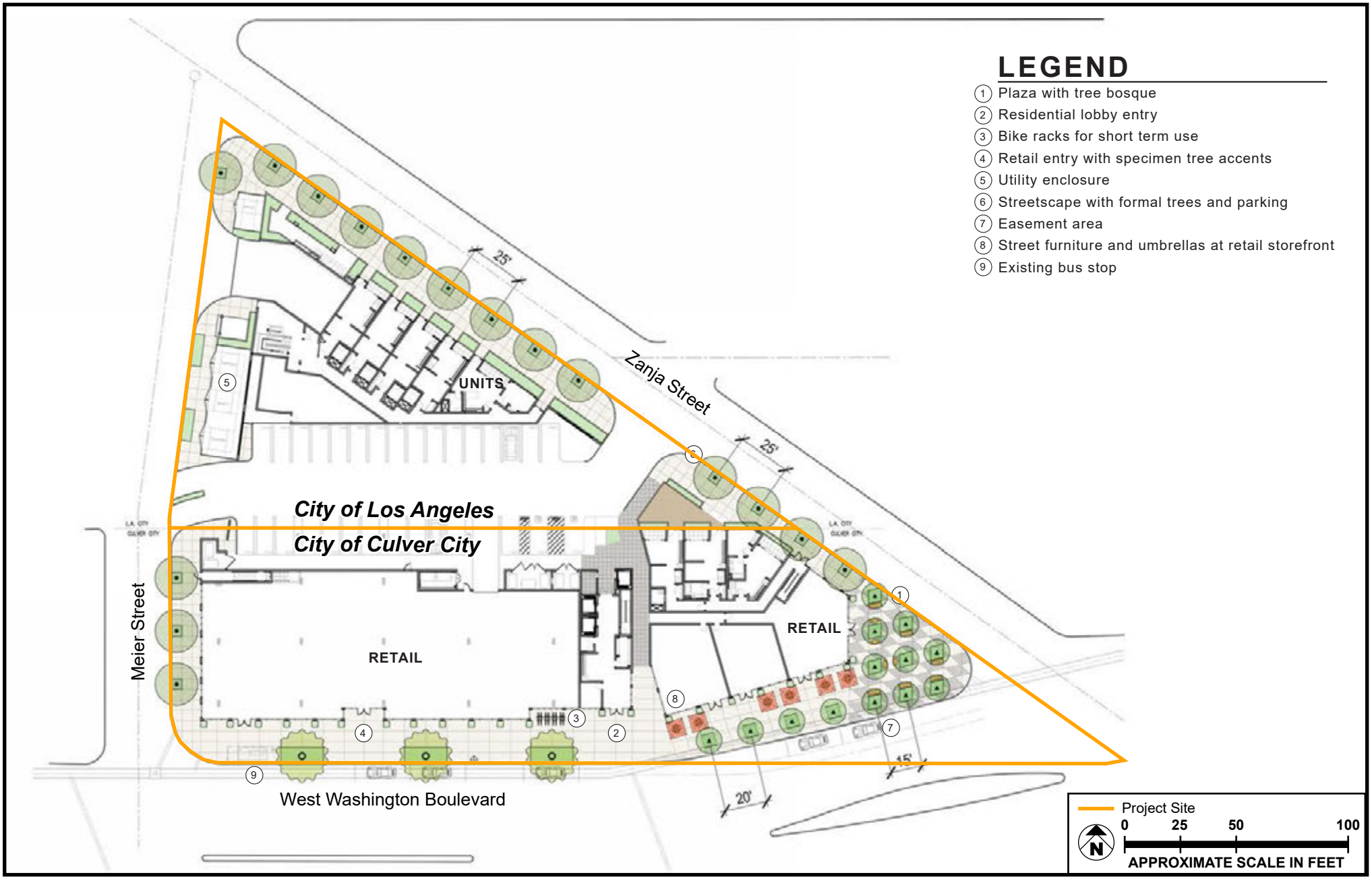
SOURCE: Google Earth - 2022

FIGURE **2**

Meridian Consultants

Project Site Aerial

163-003-19



SOURCE: pk:architure—2020

FIGURE **3**

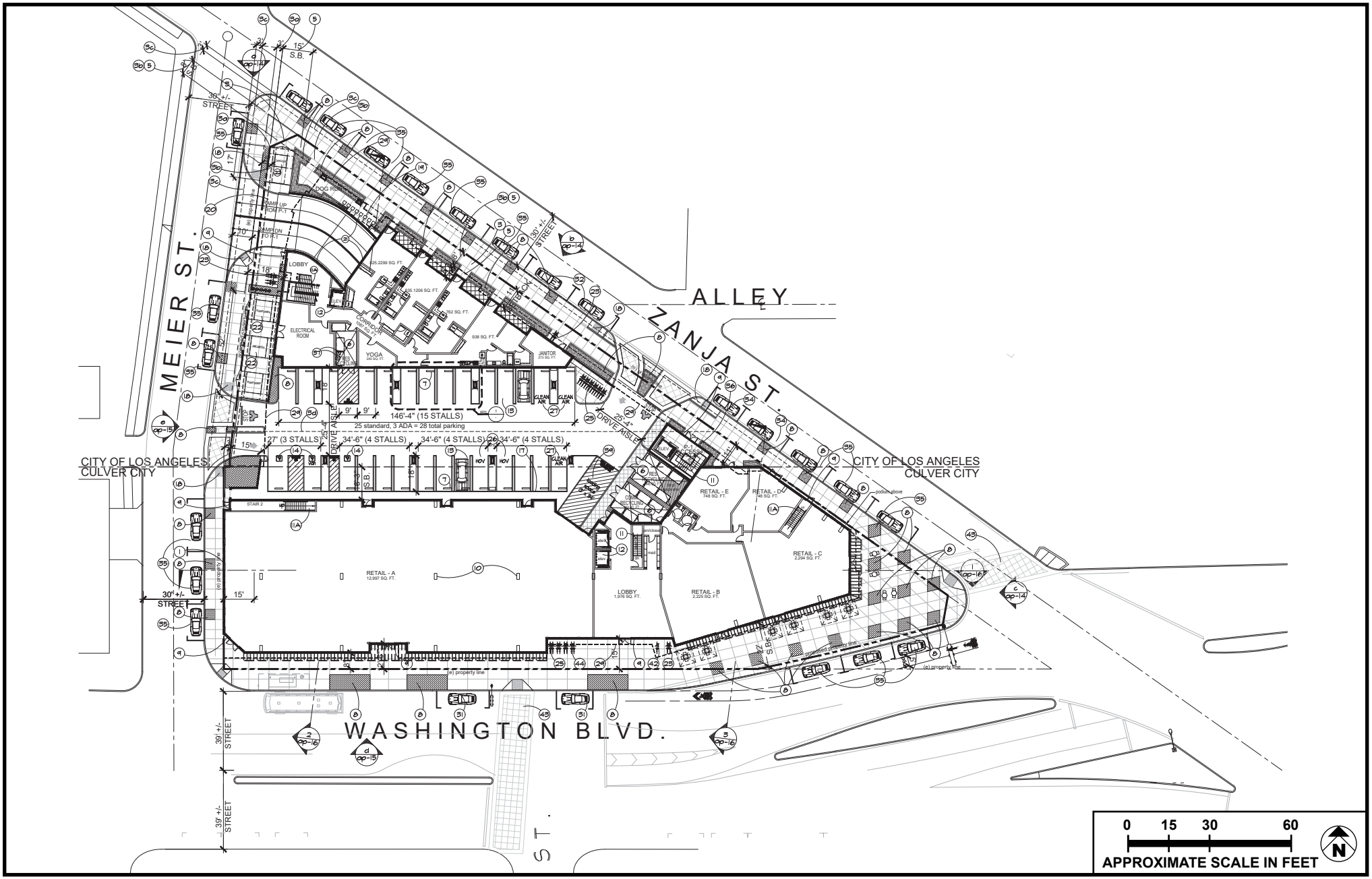
Meridian Consultants

Conceptual Site Layout

163-003-19

Attachment A

Project Site Plan



SOURCE: PK Architecture – 2021

ATTACHMENT **A**

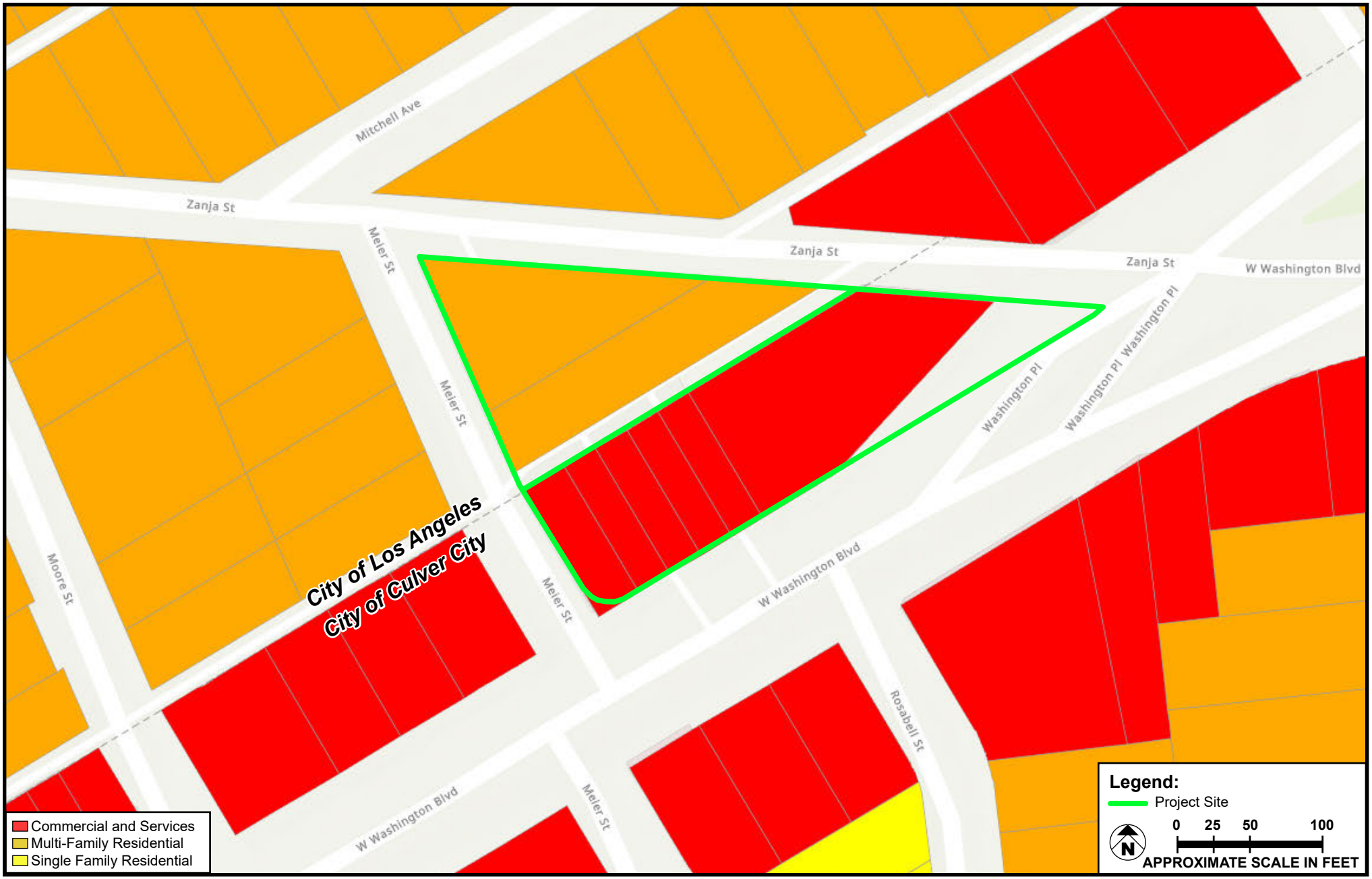
Meridian Consultants

Project Site Plan

163-003-19

Attachment B

SCAG General Plan Land Use Designations



SOURCE: ArcGIS, SCAG General Plan Land Use – Los Angeles County

ATTACHMENT **B**

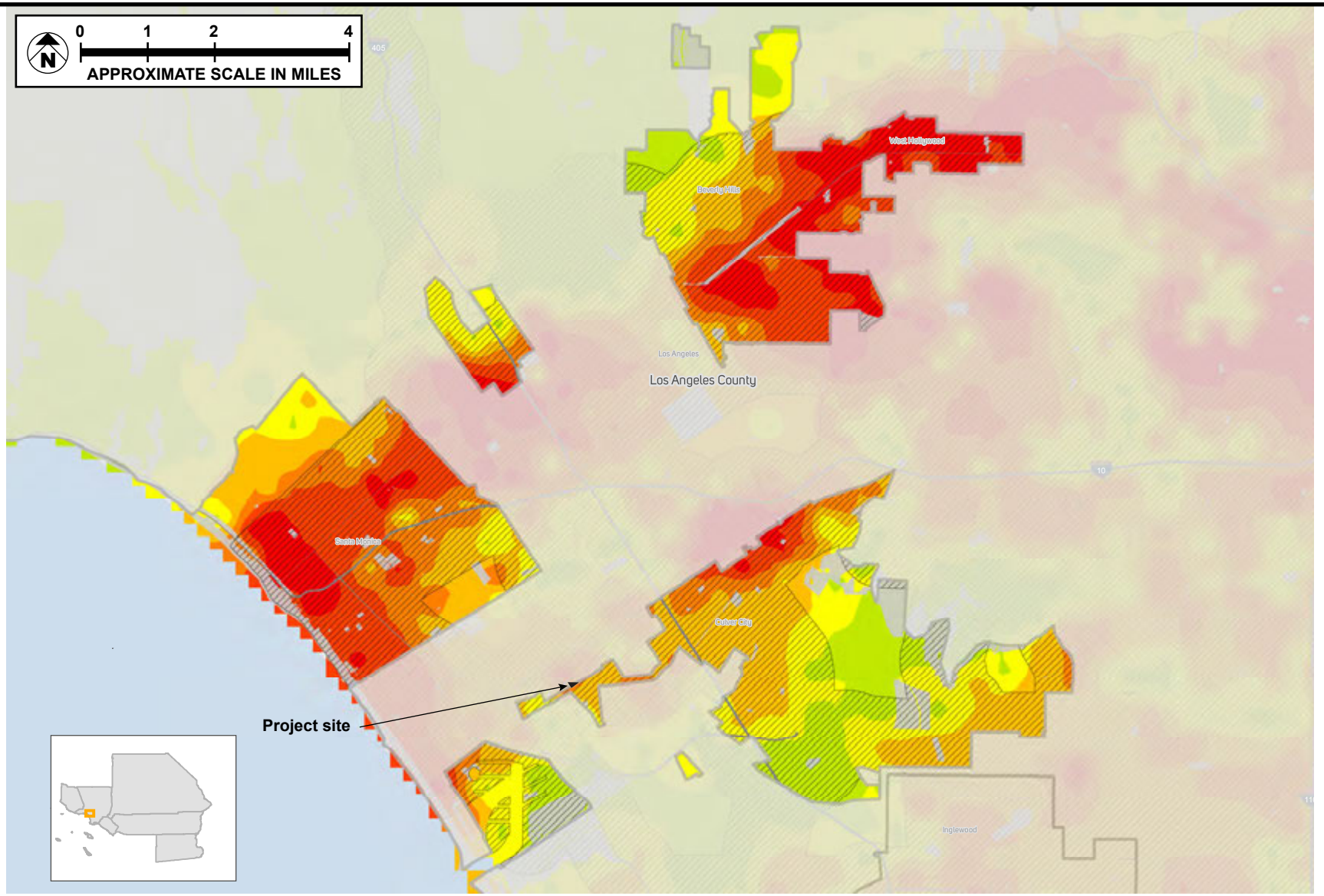
Meridian Consultants

SCAG General Plan Land Use Designations

163-003-19

Attachment C

Forecasted Westside Cities Regional Development Types (2040)



Note: The forecasted land use development patterns by LDCs shown are based on Transportation Analysis Zone (TAZ) level data utilized to conduct required modeling analyses. Data at the TAZ level or at a geography smaller than the jurisdictional level are advisory only and non-binding, because SCAG sub-jurisdictional forecasts are not to be adopted as part of the 2016 RTP/SCS. For purposes of qualifying for future funding opportunities and/ or other incentive programs, sub-jurisdictional data and/or maps used to determine consistency with the Sustainable Communities Strategy shall only be used at the discretion and with the approval of the local jurisdiction. However, this does not otherwise limit the use of the sub-jurisdictional data and/or maps by SCAG, CTCs, Councils of Governments, SCAG Subregions, Caltrans and other public agencies for transportation modeling and planning purposes. Any other use of the sub-jurisdictional data and/or maps not specified herein, shall require agreement from the Regional Council, respective policy committees and local jurisdictions.

SOURCE: SCAG-2015

ATTACHMENT **C**

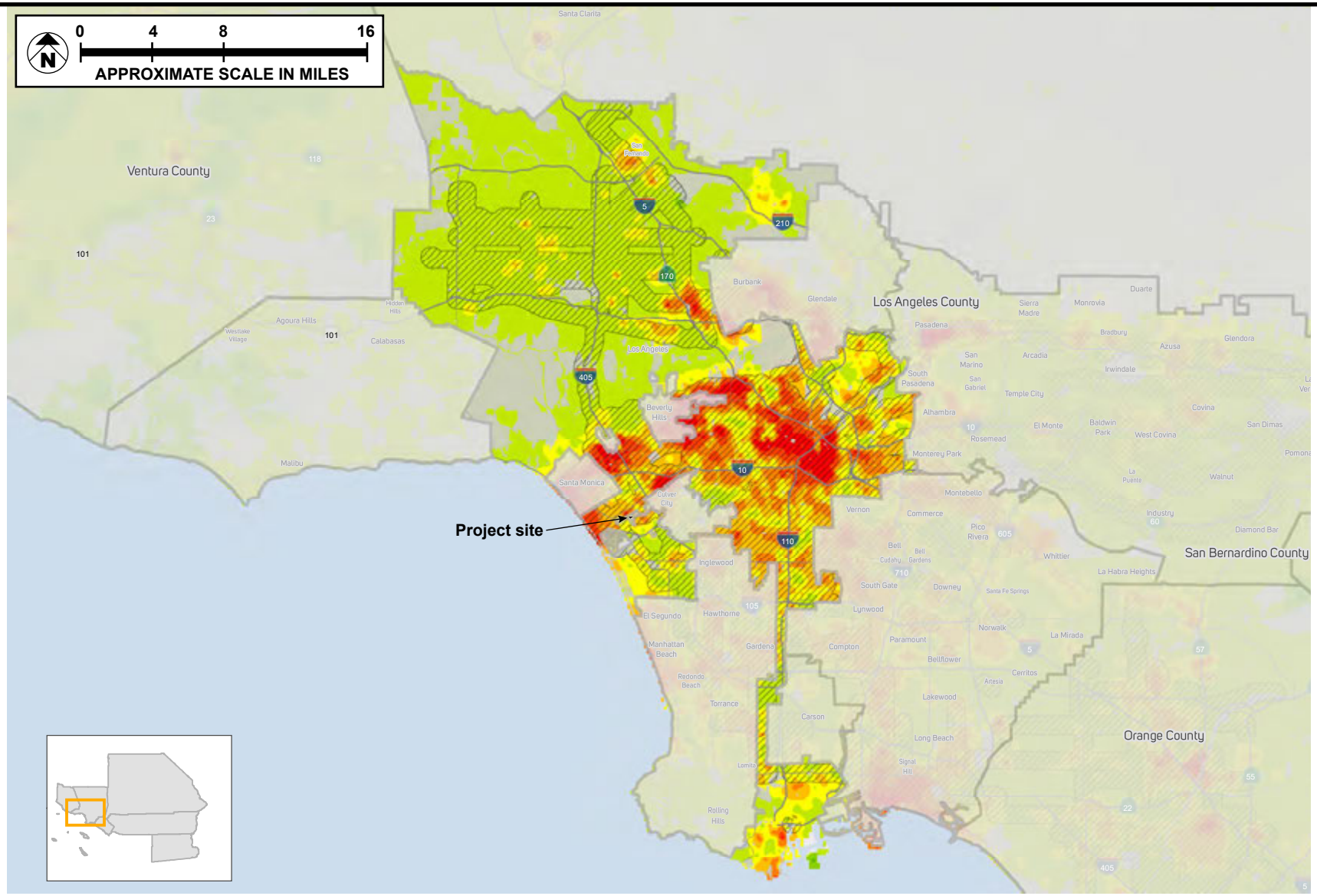
Meridian Consultants

Forecasted Westside Cities Regional Development Types (2040)

163-003-19

Attachment D

Forecasted Los Angeles Subregion Regional Development Types (2040)



Note: The forecasted land use development patterns by LDCs shown are based on Transportation Analysis Zone (TAZ) level data utilized to conduct required modeling analyses. Data at the TAZ level or at a geography smaller than the jurisdictional level are advisory only and non-binding, because SCAG sub-jurisdictional forecasts are not to be adopted as part of the 2016 RTP/SCS. For purposes of qualifying for future funding opportunities and/ or other incentive programs, sub-jurisdictional data and/or maps used to determine consistency with the Sustainable Communities Strategy shall only be used at the discretion and with the approval of the local jurisdiction. However, this does not otherwise limit the use of the sub-jurisdictional data and/or maps by SCAG, CTCs, Councils of Governments, SCAG Subregions, Caltrans and other public agencies for transportation modeling and planning purposes. Any other use of the sub-jurisdictional data and/or maps not specified herein, shall require agreement from the Regional Council, respective policy committees and local jurisdictions.

SOURCE: SCAG—2015

ATTACHMENT **D**

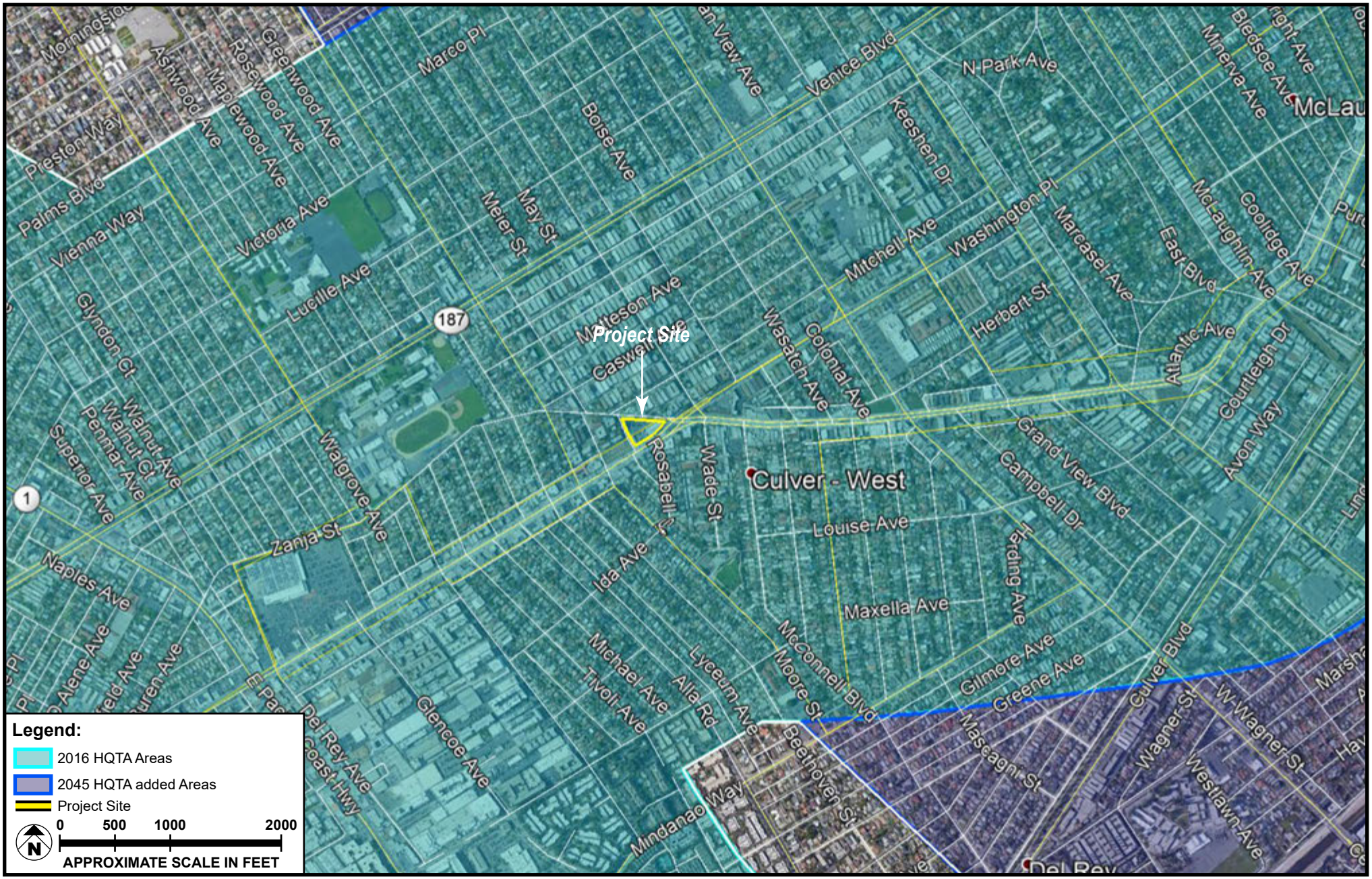
Meridian Consultants

Forecasted City of Los Angeles Subregion Regional Development Types (2040)

163-003-19

Attachment E

SCAG High Quality Transit Area (HQTA)—2016 with 2045



SOURCE: Google Earth - 2020; Southern California Association of Governments—2016, Regional Transportation Plan/Sustainable Communities Strategy

ATTACHMENT **E**

Meridian Consultants

SCAG High Quality Transit Area (HQTA)—2016 with 2045

163-003-19

Attachment F

SCAG Transit Priority Area (TPA)—Year 2016 with 2045

SOURCE: Google Earth - 2020; Southern California Association of Governments—2016, Regional Transportation Plan/Sustainable Communities Strategy

ATTACHMENT **F**

Meridian Consultants

SCAG Transit Priority Area (TPA)—Year 2016 with 2045

163-003-19

Attachment G

2020—2045 Regional Transportation Plan/Sustainable Communities Strategy Consistency Analysis

Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods

The Proposed Project is located in a transit-rich and pedestrian accessible location with connectivity to many areas within Culver City and Los Angeles. Specifically, the Proposed Project will allow residents, tenants, and users accessibility and mobility with good pedestrian and transit connectivity. The Proposed Project would include the construction of 144 multifamily residential units and approximately 19,341 square feet of retail uses within a High-Quality Transit Area (HQTA) and High-Quality Transit Corridor (HQTC), as defined by the Southern California Association of Governments (SCAG), and within a transit priority area, as defined by Senate Bill (SB) 743, and in close proximity to existing and proposed residences and commercial opportunities. The Proposed Project is designed to encourage multiple alternative modes of transportation and encourage access to public transit and opportunities for walking and biking, encouraging a variety of transportation options. The Proposed Project includes design elements that will create bicycle and pedestrian-oriented amenities such as bike parking and open space seating to activate the streetscape. Therefore, the Proposed Project will help maximize accessibility between people and goods.

Goal 3: Enhance the preservation, security, and resilience of the regional transportation system

The Proposed Project includes pedestrian improvements which will improve travel safety and reliability in the Project area. This includes enhanced streetscapes with improvements such as new trees and sidewalk parkways. Vehicular access to the Project Site would be provided via a new access point/driveway midpoint along Zanja Street and would remove the two access points along Zanja Street. Additionally, the existing access point along Meier Street would be improved to accommodate traffic leaving the site and a new access point/driveway would be provided along Meier Street near Zanja Street for the subterranean parking. The Proposed Project will also provide 69 bicycle parking spaces with direct access to the bicycle lane on West Washington Boulevard. In addition, the Proposed Project would include lighting of pedestrian pathways adjacent to the Project Site to allow for safe travel. Furthermore, the Proposed Project would be subject to the site plan review requirements of the City and would be required to coordinate with the Building Department and Fire Department to ensure that all access roads, driveways, and parking areas would not create a design hazard to local roadways. Thus, the Proposed Project will promote travel safety and reliability for the people in the region that travel through the Project area. The Proposed Project is consistent with this goal.

Goal 4: Increase person and goods movement and travel choices within the transportation system

The Proposed Project would support and maximize the productivity of the transportation system by locating a mixed-use project in SCAG's HQTA and HQTC, as well as within a transit priority area. The Proposed Project includes 144 residential units, 19,341 square feet of community serving commercial retail uses, and associated open space and amenities. Future residents and visitors of the Project Site would have the opportunity to access Culver City Line 1 with a frequency of service intervals of 15 minute or less during peak hours. The Santa Monica Big Blue Bus Line 14 also would service the Project Site with a frequency of service intervals of 15 minutes or less during peak times. The Los Angeles Metro 33 bus line also provides a frequency of service intervals of 15 minutes or less during peak times. Additionally, the Culver City Line 2 and Big Blue Bus Line 16 also run near the Project Site with less frequency. Given the Project's proximity to mass transit, the Proposed Project will encourage the utilization of mass transit as a mode of transportation to and from the Project area. Thus, the Proposed Project will contribute to the productivity and use of the regional transportation system by providing housing and jobs near transit. The Proposed Project is consistent with this goal.

Goal 6: Support healthy and equitable communities

The Proposed Project will encourage the use of multimodal transportation options. The Proposed Project will facilitate the use of alternative modes of transportation which will aid in reducing car trips and positively impact air quality. The Proposed Project includes 69 bicycle parking spaces for the commercial and residential uses, and various bicycle and pedestrian-friendly design amenities such as bike facilities and open space seating to activate the streetscape and encourage the use of transit. The Proposed Project also includes walkability improvements, including landscaping to facilitate pedestrian movement, improving sidewalks around the perimeter of the Project Site to accommodate pedestrian flow and provide pedestrian safety, and installing pedestrian-scale tenant signage and lighting to facilitate safety and security. The Proposed Project is consistent with this goal.

Goal 8: Leverage new transportation technologies and data-driven solutions that result in more efficient travel

The Proposed Project would meet the requirements of the City's Green Building Code and the California Green Building Code by including at least eight of the Proposed Project's vehicle parking spaces to be capable of accommodating electric vehicle (EV) charging stations, two high-occupancy vehicle spaces, and three clean air spaces. The Proposed Project would be built to the current building codes that require sustainability measures such as efficient energy systems.

Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options

The Project Site is located in SCAG's HQTA, near existing public transit opportunities provided by Metro bus lines. The Proposed Project will encourage the use of transit, walking and bicycling, as the Proposed Project is locating a mixed-use residential and commercial development on a site that is within an area with numerous bus lines, sidewalks, and bicycle infrastructure. Therefore, project residents and visitors would have easy access to alternative transportation options. Additionally, the Proposed Project would create a more pedestrian-oriented environment by replacing an existing commercial building, the former 99 Cent Discount structure, and associated parking lots with a new mixed-use pedestrian-oriented building. The Proposed Project is consistent with this goal.

Strategy: Focus Growth Near Destinations & Mobility Options

The Proposed Project is considered a compact development that would provide residential and retail/commercial uses in SCAG's HQTA and HQTC area, as well as within the City of Los Angeles' TPA. The Project will provide multifamily housing and job-creating commercial uses to an existing, transit-accessible area. The Proposed Project will provide a variety of dwelling unit sizes, with different bedroom units that accommodate a range of households. Further, the Proposed Project will provide 11 units of affordable housing.

In addition, the Proposed Project will provide bicycle parking; bicycle amenities for short- and long-term bicycle parking on the ground floor and subterranean levels that is secured, fully covered, and directly accessible from the bike lane; and enhanced streetscapes. The Proposed Project will provide various pedestrian-oriented improvements, including installing landscaping and building orientation to facilitate pedestrian movement, pedestrian-scale tenant signage and lighting to facilitate access and safety, and improvements to sidewalks. The Proposed Project is consistent with implementing this strategy.

Strategy: Promote Diverse Housing Choices

The Project will provide 19 units of affordable housing, which will include low- and very-low-income rental units. Additionally, on-site commercial uses would provide employment and patronage opportunities for residents on the Project Site. This would place housing and jobs (neighborhood-serving commercial retail opportunities) in the Project Site and nearby public transit stops.

Strategy: Support Implementation of Sustainability Policies

The Project will exceed Title 24 efficiency standards and reduce water consumption when compared to the regional average household consumption. The Project will incorporate low-impact sustainable design features and components to conserve resources. Some potential design features and components may

include but are not limited to the following: incorporation of an inside-outside element to the Project with natural lighting, healthy building materials, and the capability to bring 100 percent filtered outside air to the inside. Use of daylighting, orientation, solar gain, and local climate were all taken into account during the design of the building to maximize light and minimize heat gain. The Proposed Project includes numerous energy-efficient design features, such as energy star rated appliances. The Proposed Project will be at least 15 percent more energy efficient than Chapter 6 of Title 24 California Code of Regulation standards. Additionally, the Proposed Project includes numerous water-efficient design features, such as water efficient fixtures, drought tolerant landscaping, and water efficient irrigation. The building and landscaping will achieve at least 25 percent greater water usage than the average household in the region.

The Project would also be constructed consistent with the most recent building code, which requires conduit and electrical pre-wiring to support future installation of EV charging equipment consistent with the applicable CALGreen Code and County Green Building Code requirements. Further, the proposed commercial uses would be required to provide EV charging facilities per CALGreen requirements.

Strategy: Promote a Green Region

The Project will exceed Title 24 efficiency standards and reduce water consumption when compared to the regional average household consumption. The Project will incorporate low-impact sustainable design features and components to conserve resources. Some potential design features and components may include but are not limited to the following: incorporation of an inside-outside element to the Project with natural lighting, healthy building materials, and the capability to bring 100 percent filtered outside air to the inside. Use of daylighting, orientation, solar gain, and local climate were all taken into account during the design of the building to maximize light and minimize heat gain. The Proposed Project includes numerous energy-efficient design features, such as energy star rated appliances. The Proposed Project will be at least 15 percent more energy efficient than Chapter 6 of Title 24 California Code of Regulation standards. Additionally, the Proposed Project includes numerous water-efficient design features, such as water efficient fixtures, drought tolerant landscaping, and water efficient irrigation. The building and landscaping will achieve at least 25 percent greater water usage than the average household in the region.

The Project's incorporation of bicycle-and pedestrian-friendly elements and location near various bus lines will provide future residents with various affordable transportation options. The Project also promotes and provides residents, employees, and visitors with opportunities to utilize alternative transportation modes and further reduce the number of single occupancy vehicle trips to the Project Site. The Project will encourage the use of transit, walking and bicycling, as the Project is locating a mixed-use development with residential and commercial uses on a site that is within an area with numerous bus lines, sidewalks, and bicycle infrastructure.

Attachment H

Will Serve Letters

Will Serve Letter Only

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

DATE: 10/21/2020

COMPANY: Triangle Center LP

SUBJECT: 12741 WASHINGTON BLVD, CULVER CITY, CA 90066

Your project is located in Southern California Edison (SCE) service territory. SCE will serve the above subject project's electrical requirements per the California Public Utilities Commission and Federal Energy Regulatory Commission tariffs.

SCE may need to conduct utility studies, where applicable, to assess whether additions or modifications to the existing electric infrastructure are required to serve this project. Where applicable, SCE has attached Appendix (B) which not only describes the study, and permitting, but includes a Project Information Sheet that will need to be completed by you and submitted to SCE if your project is at a point where SCE has to determine the required electrical utility work. This Will-Serve letter does not imply that either: (i) these studies have been completed, or (ii) that any required California Environmental Quality Act (CEQA) analysis of project-related electric utility impacts has been conducted.

I am the SCE Design Representative currently assigned to this project. SCE or Applicant will design and construct all required electrical infrastructure to serve this project provided you enter into the applicable contractual agreements with SCE identify scope of electrical utility work required, and supply the following information:

- Site plans as required
- Required contracts and agreements (fully executed)
- Applicable fees
- Local permits
- Required easement documents

Your project will be scheduled for construction once SCE has all the necessary information for your project and you have submitted or agreed to the applicable requirements as stated above, and paid any necessary fees.

If your project will not require SCE services, please notify us so that we can update our records.

SCE appreciates your business. If you have any questions, please feel free to call me at (310) 961-0412

Sincerely,

MUDILA KANGULUNGU

SCE Design Representative

Enclosure: Appendix B, where applicable

Los Angeles Department of Water & Power
CUSTOMERS FIRST

Eric Garcetti, Mayor

Board of Commissioners
Mel Levine, President
Cynthia McClain-Hill, Vice President
Jill Banks Barad
Nicole Neeman Brady
Susana Reyes
Susan A. Rodriguez, Secretary

Martin L. Adams, General Manager and Chief Engineer

June 9, 2020

Map No. 110-153

Triangle Centre LP
11955 West Washington Boulevard, Suite 103
Culver City, California 90066

Ladies and Gentlemen:

Subject: Water Availability – Will Serve
12717-12761 West Washington Boulevard
(APNs: 4236-020-001-006 and 030, Tract TR 5951, Lots 64-71)

This is in reply to your request regarding water availability for the above-mentioned property. This property can be supplied with water from the municipal system subject to the Water System rules of the Los Angeles Department of Water and Power (LADWP). It is also subject to all conditions set by LADWP.

Should you require additional information, please contact Ms. Cari Castro at (213) 367-1317. Correspondence may be addressed to:

LADWP - Water Business Arrangements
Attention: Ms. Cari Castro
P.O. Box 51111, Room 1425
Los Angeles, California 90051-5700

Sincerely,

Liz Gonzalez
Manager - Business Arrangements
Water Distribution Engineering

CC
c: Ms. Cari Castro

701 N. Bullis Rd.
Compton, CA 90224-9099

June 3, 2020

Citadel Property Group Inc.

Attn: Denise Hewitt

Subject: Will Serve - 12717-12761 W. Washington Blvd. Culver City, CA 90066

Thank you for inquiring about the availability of natural gas service for your project. We are pleased to inform you that Southern California Gas Company (SoCalGas) has facilities in the area where the above named project is being proposed. The service would be in accordance with SoCalGas' policies and extension rules on file with the California Public Utilities Commission (CPUC) at the time contractual arrangements are made.

This letter should not be considered a contractual commitment to serve the proposed project, and is only provided for informational purposes only. The availability of natural gas service is based upon natural gas supply conditions and is subject to changes in law or regulation. As a public utility, SoCalGas is under the jurisdiction of the Commission and certain federal regulatory agencies, and gas service will be provided in accordance with the rules and regulations in effect at the time service is provided. Natural gas service is also subject to environmental regulations, which could affect the construction of a main or service line extension (for example, if hazardous wastes were encountered in the process of installing the line). Applicable regulations will be determined once a contract with SoCalGas is executed.

If you need assistance choosing the appropriate gas equipment for your project, or would like to discuss the most effective applications of energy efficiency techniques, please contact our area Service Center at 800-427-2200.

Thank you again for choosing clean, reliable, and safe natural gas, your best energy value.

Sincerely,

Jason Sum

Jason Sum
Pipeline Planning Assistant
SoCalGas-Compton HQ

Frontier COMMUNICATIONS

www.Frontier.com

OSP Network Engineering
1450 S BUNDY DR
LOS ANGELES, CA 90025

1/9/19

Bastion Development
Triangle Centre, LP
11924 Washington Blvd
Culver City, CA 90066

Project: 12727 W Washington Blvd
Los Angeles, CA 90066

In reference to the above-mentioned Development and subject to applicable laws, regulations and tariffs, Frontier California Inc. will supply the necessary communication service at the Development if we receive the proper information, easements and payment listed below, as required by Frontiers' tariff:

1. One full set of paper development plans.
2. Mailing addresses for each building when they become available to start to establish the 911 database.
3. Documentation granting all required rights-of-way and easements at no cost to Frontier.
4. Payment in full of the required advance payment based on estimated costs. The actual cost to you will depend on such factors as lot size, the proximity of existing feeder facilities, the existing feeder capacity, terrain and other environmental conditions (e.g., railroads, waterways). Please contact Frontier if you require a more precise estimate of construction costs for the Development.

Should you need any additional information, please do not hesitate to contact me.

Sincerely,

Frontier

Cory Riggs
Sr. Network Engineer
310-264-5123
Cory.riggs@ftr.com

Charter
COMMUNICATIONS

Will Serve Letter

4/5/2018

0
Bastion Development Corporation
500-1681 Chestnut St
Vancouver, BC B6J 4M6

Project Name: WSL - 12741 W Washington
LOCATION: 12741 W Washington Blvd, in the city of Culver City

Re: May Serve Letter by Charter Communications or an affiliate authorized to provide service ("Charter")

Thank you for your interest in receiving Charter service. The purpose of this letter is to confirm that the Property is within an area that Charter may lawfully serve. However, it is not a commitment to provide service to the Property. Prior to any determination as to whether service can or will be provided to the Property, Charter will conduct a survey of the Property and will need the following information from you:

- Exact site address and legal description
- Is this an existing building or new construction?
- Site plans, blue prints, plat maps or any similar data
- The location of any existing utilities or utility easements
- _____

Please forward this information to the construction manager listed below. Upon receipt, a Charter representative will be assigned to you to work through the process. Ultimately, a mutually acceptable service agreement for the Property will be required and your cooperation

Construction Manager Contact:
Ruiz, Al
Construction Manager - Zone 6
6357 Arizona Circle
Los Angeles, CA 90045
310-216-3510
Al.Ruiz@charter.com

Sincerely,

Attachment I

Preliminary Endangerment Assessment

21151 S. Western Avenue, Suite 100 | Torrance, CA 90501 | TEL 310-832-2300 | FAX 310-362-8843 | www.edi-consultants.com

October 22, 2019

Reid Kaufmann
Vice President
Bastion Development Corporation
500-1681 Chestnut Street
Vancouver BC, V6J 4M6
P: 604-731-3500 ext. 235
C: 778-888-7798
F: 604-731-3366
rkaufmann@bastion.ca

Subject: **PEA Clarification and Request for Exemption**
12751-12761 W. Washington Boulevard
Culver City, CA 90066

Dear Mr. Kaufmann:

It is our understanding that Bastion Development Corporation is seeking an exemption as part of its CEQA strategy relating to the site located at 12751-12761 W. Washington Boulevard in Culver City, California known as the Triangle Project. Specifically, you are seeking clarification on whether the environmental due diligence completed thus far complies with a "preliminary endangerment assessment" also known as a PEA. To date, EDI Consultants, Inc. ("EDI") has completed the following environmental reports which are detailed under separate cover:

- *Phase I Environmental Site Assessment* report dated October 19, 2015
- *Phase II Subsurface Investigation* report dated Nov 29, 2018
- *TCLP and STLC Report* dated Dec 13, 2018
- Soil Analytical Results prepared by A&R Laboratories dated Dec 26, 2018.

The Preliminary Endangerment Assessment (PEA) process determines if there has been a release of a hazardous substance that presents a risk to human health or the environment. The PEA provides basic information, includes a Work Plan that describes the work to be done and a Report of the results, and makes conclusions about the PEA data. The PEA Report may serve as a Phase I Environmental Assessment and may meet the "All Appropriate Inquiries" (AAI) requirement to allow for liability protections under federal regulations. If the PEA work does not define the full nature and extent of contamination, the Department of Toxic Substances Control (DTSC) may determine that a Supplemental Site Investigation or Remedial Investigation is necessary. A PEA may also conclude that a Land Use Covenant is required, in which case, a public notification process is implemented.

The PEA incorporates much of the information required for completion of the preliminary assessment and site inspection (PA/SI) investigations (i.e. Phase II) currently used by the USEPA. The PEA also has

background information requirements similar to a Phase I Environmental Site Assessment required by most lending institutions prior to commercial real estate transactions. It should be noted that PEAs are typically completed at sites for private parties with DTSC oversight. School districts, county offices of education and charter entities seeking state bond funding for school sites are required to prepare a PEA.

Although overall PEA requirements are more comprehensive than requirements for Phase I and Phase II Assessments (i.e. site-specific human health and ecological screening evaluations, public participation requirements, data collection, and scoping activities), the environmental due diligence completed to date for the Subject Property addresses the "degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation" as criterion as part of the AAI.

Based on the findings and conclusions of the aforementioned reports completed by EDI on behalf of Bastion Development Corporation, neither a release of hazardous material nor the presence of a naturally occurring hazardous material which would pose a threat to public health or the environment was indicated at the Subject Property. In addition, the Subject Property is *not* under DTSC oversight nor is it associated with a prospective school site at this time. Based on the foregoing, no additional investigation or a PEA is required for the Subject Property.

EDI appreciates the opportunity to provide technical services to Bastion Development Corporation. If you have any questions or comments, please do not hesitate to call the undersigned directly at (310) 832-2300.

Sincerely,

EDI Consultants, Inc.

Darrin A. Domingo, MBA, REPA, CHMM
Registered Environmental Property Assessor – No. 642775
Certified Hazardous Materials Manager – No. 11546

Prepared For:

BASTION DEVELOPMENT CORPORATION

500-1681 CHESTNUT STREET
VANCOUVER, BC V6J 4M6

PHASE II
LIMITED SUBSURFACE INVESTIGATION REPORT

12751-12761 W. Washington Boulevard
Culver City, California 90066

Date Issued: October 25, 2017
Project Number: 217-0368

Prepared By:

EDI CONSULTANTS

21151 S. Western Avenue, Suite 100, Torrance, California 90501
Telephone: 310.832.2300 Facsimile: 310.362.8843

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October 25, 2017

Kevin Read
Bastion Development Corporation
500-1681 Chestnut St
Vancouver, BC V6J 4M6
Tel (310) 701-0282
kpr@oceanhold.com

Subject: Limited Subsurface Investigation,
12751-12761 W. Washington Boulevard
Culver, CA 90066
EDI Project # 217-0368

Dear Mr. Read:

In accordance with our agreement dated October 3, 2017, EDI Consultants (EDI) is pleased to submit this *Limited Subsurface Investigation Report (Report)* for the above-referenced property (herein referred to as the Subject Property). The conclusions of this *Report* are based on soil vapor analytical data prepared by Optimal Technology and field observations recorded by EDI personnel.

Bastion Development Corporation, its successors and assigns, bond holders and potential bond holders, the underwriters of any securitization of the loan secured by the Subject Property, the rating agencies rating such securitization, and each of such parties' counsel, are entitled to rely upon this Report and to use its contents and conclusions as may be appropriate.

It has been a pleasure to prepare this *Report.* Please contact the undersigned if you have questions about the contents of this *Report* or require further information.

Sincerely,

EDI Consultants

Brian Tang, EIT
Project Manager

CERTIFIED HAZARDOUS MATERIALS MANAGER
DARRIN A. DOMINGO
11546
CHMM
EXPIRES OCT 30, 2018

Darrin A. Domingo, MBA, REPA, CHMM
Registered Environmental Property Assessor – No. 642775
Certified Hazardous Materials Manager – No. 11546

Executive Summary

On October 18, 2017, EDI Consultants (EDI) performed a Phase II Limited Subsurface Investigation at 12751-12761 W. Washington Boulevard (the "Subject Property") in the City of Culver City, Los Angeles County, California (Figure 1 - Topographic Map). The Subject Property is located on the northeast corner of the intersection of W. Washington Boulevard and Meier Street. The Subject Property includes one rectangular-shaped parcel, totaling approximately 0.08 acres. The Subject Property is currently improved with a single-story commercial building, with a net rentable area of approximately ±2,450 square feet. There is no basement present beneath the existing structure. The existing improvements were reportedly constructed in 1958. The Subject Property is currently tenanted with various commercial establishments such as a donut shop, barber shop, retail and office. Surrounding properties include a parking lot to the north with Zanja Street located beyond, a mixed-use commercial office/retail and multi-family residential center (12762 W. Washington Boulevard) to the south with single-family residential developments located beyond, a parking lot is located to the east with a 99 Cents Only Store (12741 W. Washington Boulevard) located beyond and Meier Street is located to the west with a vacant lot located beyond.

Subsurface activities included advancing a total of eleven (11) soil borings in the vicinity of the former dry cleaner tenant which reportedly occupied the 12755-12759 tenant spaces from the late 1980s to early 2000s. A total of sixteen (16) soil vapor samples were collected during the assessment and submitted for analysis of Volatile Organic Compounds (VOCs) via Modified EPA Method 8260B by Gas Chromatography–Mass Spectrometry (GCMS). Groundwater was not detected within any of the borings at the Subject Property to a maximum exploration depth of 7 feet.

During this subsurface investigation, the laboratory results of four (4) soil vapor samples collected during the limited subsurface investigation indicated tetrachloroethene (PCE) ranged between 0.14 µg/L to 0.91 µg/L to a maximum depth of 4 feet below ground surface (bgs). Concentration levels of PCE detected in the four (4) soil vapor samples did not exceed the Department of Toxic Substances Control (DTSC) HERO HHRA NOTE NUMBER: 3, DTSC-modified Screening Levels for soil vapor of 2.0 µg/L of PCE in commercial/industrial settings. No other Volatile Organic Compounds (VOCs) were detected in any of the remaining soil vapor samples submitted for analysis.

Based on the foregoing, EDI's professional opinion is that the Subject Property is absent of pervasive contamination from the former dry cleaning tenant and, therefore, **no further action** is warranted at this time with respect to the investigated areas assessed.

1.0 INTRODUCTION

1.1 Purpose

The purpose of the Phase II Limited Subsurface Investigation was to provide information regarding the presence or absence of evidence of a release of volatile organic compounds (VOCs) to soil gas and/or soil at the Subject Property as a consequence of one or more historic releases from the on-site dry cleaner. The purpose of this *Report* is to present a preliminary evaluation of subsurface conditions and laboratory results of soil gas obtained at the Subject Property. This report was not intended to present litholgy or geology of the site which is typically determined by a Registered Geologist. The limited subsurface investigation was conducted for purposes of "initial site screening" only, where the objective was to assess if contamination was present; and to attempt to assess the source, extent, and magnitude of impacted soil. To accomplish this task, EDI collected a total of sixteen (16) soil gas (vapor) samples at the Subject Property.

1.2 Limitations

This *Report* was prepared for the use of ***Bastion Development Corporation***, its successors and assigns, bond holders and potential bond holders, the underwriters of any securitization of the loan secured by the Property, the rating agencies rating such securitization, and each of such parties' counsel, are entitled to rely upon this Report and to use its contents and conclusions as may be appropriate. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by EDI are based solely on the information obtained by visual inspection of the Subject Property; field notes and data recorded by EDI personnel; soil and soil gas analytical data; and information provided by the client and by others. EDI renders no opinion as to the presence of oil and/or hazardous material for which no analyses were conducted and/or at uninspected and/or inaccessible portions of the Subject Property. The observations in this Report are valid on the date of the investigation. Therefore, the *Report* should not be relied on to represent conditions at a later date. Any additional information that becomes available concerning the Subject Property should be provided to EDI, so that our conclusions may be revised and modified, if necessary. This *Report* has been prepared in accordance with the terms and conditions provided in our Standard Conditions for Engagement described in Attachment A, which is an integral part of this *Report*. No other warranty, expressed or implied, is made.

2.0 SITE BACKGROUND

2.1 Site Description

The Subject Property includes one rectangular-shaped parcel, totaling approximately 0.075-acres identified by the Los Angeles County Assessor's Office as APN 4236-020-001. The Subject Property is currently improved with a single-story commercial with a net rentable area of ±2,450 SF. There is no basement present beneath the existing structure. The existing improvements were constructed in 1958. The existing building occupies approximately 90% of the Subject Property with a concrete pedestrian walkway (Figure 2 – Soil Vapor Sampling Location Map). At the time of the investigation, the Subject Property was tenanted with various commercial establishments such as a donut shop, barber shop, retail and office.

2.2 Summary of Previous Environmental Site Assessments

EDI reviewed the following report: an environmental assessment on the Subject Property titled *Limited Phase II Sampling Results, Subject Property Located at 12755 West Washington Boulevard, Culver City, California* (Phase II) dated April 2, 2002 prepared by Wasterstone Environmental, Inc for Triangle Center LLC c/o Sachse Real Estate Company, Inc. It should be noted that no figures were provided within the report. The Phase II report revealed the following salient information:

- The Subject Property has been operated as a dry cleaner since at least the late 1980s. Prior to drilling, the concrete floor was cored at each location to expose the underlying soil. Both soil borings were drilled using hand auger equipment to a depth of 10 feet bgs. Hand auger equipment was used because these locations are inside the dry cleaner where space and vertical access are restricted.

- In boring WB-1, drilled near the drain, soil samples were collected at depths of 2.5, 5 and 10 feet bgs. In Boring WB-2, drilled beneath the former dry cleaning machine location, soil samples were collected at depths of 2, 5 and 10 feet bgs.

- In an attempt to identify groundwater and collect a groundwater sample, one Strataprobe boring (WB-3) was installed as close to the former dry cleaning machine as possible (in the parking lot at the front of the business) as shown on Figure 2. No soil samples were collected in the boring. Periodically, boring was suspended to check for the presence of groundwater in the borehole at depths of 20 feet and 32 feet bgs. No groundwater was encountered at these depths. Because of tightly compacted soil, it was not possible to probe past 32 feet bgs. Groundwater was not encountered to the total depth of 32 feet bgs, therefore, no groundwater sample was collected.

- Soil samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260. Perchloroethylene (PCE) was detected in boring WB-2, in the area of the former dry cleaning machine at 25 µg/kg (micrograms per kilogram, or parts per billion [ppb]) at a depth of 2 feet and at 3.8 µg/kg at 5 feet. No PCE

was detected at ten feet. No other VOCs were detected. No PCE or other VOCs were detected in the three samples analyzed from boring WB-1 near the interior drain.

- The concentrations of PCE detected at the Subject Property were compared to the U.S. EPA Region IX residential and industrial scenario Preliminary Remediation Goals (PRGs). PRGs are risk-based tools for evaluating and cleaning up contaminated sites. The PRGs combine current EPA toxicity values with "standard" exposure factors to estimate whether residual chemical concentrations in soil are considered protective of humans, including sensitive groups, over a lifetime.

- The residential and industrial scenario PRGs for PCE are 5.7 and 19 mg/kg (milligrams per kilogram, or parts per million), respectively. The PCE concentrations detected at the Subject Property (0.0038 to 0.025 mg/kg) are well below both residential and industrial PRGs.

2.3 Geology and Hydrogeology

The Subject Property is located at an elevation of approximately 38 feet above mean sea level (msl). The Subject Property is located in a relatively flat area, and the general slope of the surrounding region is to the south-southwest (see Figure 2 – Topographic Map, which depicts the location of the Subject Property on the *Venice, California* USGS 7.5 Minute Topographic Quadrangle).

According to the California Department of Water Resources (DWR), the Subject Property is located within the South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin, and specifically, the Santa Monica Sub-basin (Bulletin 118 last updated on 2/27/04). The Santa Monica Sub-basin underlies the northwestern part of the Coastal Plain of Los Angeles Groundwater Basin. It is bounded by impermeable rocks of the Santa Monica Mountains on the north and by the Ballona escarpment on the south. The sub-basin extends from the Pacific Ocean on the west to the Inglewood fault on the east. Ballona Creek is the dominant hydrologic feature and drains surface waters to the Pacific Ocean.

According to Bulletin 104 published by DWR in 1961 (Planned Utilization of the Groundwater Basins of the Coastal Plain of Los Angeles County), Holocene age alluvium forms much of the surficial deposits for the central part of the sub-basin. These deposits include the clay-rich Bellflower aquiclude and underlying gravels of the productive Ballona aquifer. The Inglewood fault forms the eastern boundary of the sub-basin and appears to restrict the movement of groundwater between the Baldwin Hills and about one-half mile south of Santa Monica Boulevard Replenishment of groundwater in the Santa Monica Basin is mainly by percolation of precipitation and surface runoff onto the sub-basin from the Santa Monica Mountains. Groundwater in the Santa Monica Basin moves mainly southward toward the Ballona gap, and then flows toward to the ocean.

Based on the California Division of Mines and Geology Seismic Hazard Evaluation of the Venice 7.5-Minute Quadrangle published in 1998, the site is underlain by older alluvium overlain by stabilized older sand dunes, primarily consisting of densely consolidated clay, silt, and sand.

Based on borings advanced during this investigation, it appears that the Subject Property is underlain by brown, medium stiff, slightly moist, sandy silt with trace of clay from the ground surface to approximately 7 feet below ground surface

Groundwater was not encountered during this investigation. According to the GeoTracker website, a former Leaking Underground Storage Tank (LUST) site is Quality Tire and Auto Service located at 12955 W. Washington Boulevard in the City of Culver City, which is located approximately 800 feet to the southwest of the Subject Property and is overseen by the Los Angeles County Regional Water Quality Control Board (Region 4) as Case Number R-22133. The most recent monitoring data available on the GeoTracker website was for June 4, 2015, with depth to groundwater ranging from 31.25 to 45.00 feet bgs with a direction of flow to the southwest.

Figure 1, Topographic Map depicts the Subject Property on a portion of the *Venice*, *California*, USGS Quadrangle.

Figure 2, Site Plan shows the general layout of the Subject Property area and surrounding properties.

Figure 3, Soil Boring Location Map shows the general layout of the Subject Property area of investigation and the locations of borings.

3.0 SCOPE OF INVESTIGATION

3.1 Rationale for Work Scope

As discussed in Section 2.2, the Subject Property was formerly occupied by a dry cleaning facility known as "Crown Cleaners". Crown Cleaners had reportedly tenanted the Subject Property from the late 1980s to the early 2000s. Dry cleaning operations typically use chlorinated solvents, particularly tetrachloroethylene (PCE), during the dry cleaning process. These solvents, even when properly stored and handled, can readily migrate into the subsurface as a result of small releases associated with onsite operations. Chlorinated solvents are highly mobile chemicals that can easily accumulate in soil and migrate to groundwater beneath a facility. Based on this information, the presence of the on-site dry cleaning business for more than 20 years is considered a recognized environmental condition for the Subject Property.

3.2 Exploration Procedures

3.2.1 Soil Boring Locations

A total of eleven (11) soil borings were advanced at the Subject Property, six (6) soil borings were advanced in the former dry cleaning tenant space (12755-12799), two (2) soil borings were advanced in the adjacent tenant spaces and three (3) soil borings were advanced in the parking lot in front of the former dry cleaning tenant space. Refer to Figure 3 for a map indicating boring locations.

3.2.2 Soil Vapor Probe Installation Methods

Soil gas sampling was performed by hydraulically pushing soil gas probes to a maximum depth of 7.0 feet below ground surface (bgs). An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required.

The vapor probes were installed by John Rice, Project Manager of Optimal Technology, driving a ground rod equipped with an expendable point to the desired depth, retracting the rod in order to disengage the point, allowing soil vapors to be sampled.

3.2.3 Soil Vapor Technical Approach

Soil gas samples were collected in general accordance with the July 2015 Department of Toxic Substances Control (DTSC) and LARWQCB "Advisory - Active Soil Gas Investigations." Gas sampling was performed by hydraulically pushing soil gas probes to a maximum depth of 7.0 feet below ground surface (bgs). An electric rotary hammer drill was used to drill a 1.0-inch diameter hole through the overlying surface to allow probe placement when required. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location, an electric vacuum pump set to draw 0.2 liters per minute (L/min) of soil vapor was attached to the probe and purged prior to sample collection. Vapor samples were obtained in SGE gas-tight syringes by drawing the sample through a luer-lock connection which connects the sampling probe and the vacuum pump. Samples were immediately injected into the gas chromatograph/purge and trap after collection. New tubing was used at each sampling point to prevent cross contamination.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with a Hewlett Packard model 5971 Mass Spectra Detector and Tekmar LSC 2000 Purge and Trap. An SGE capillary column using helium as the carrier gas was used to perform all analysis. All results were collected on a personal computer utilizing Hewlett Packard's 5971 MS and chromatographic data collection and handling system.

Following completion of laboratory analyses, the vapor probes were removed from the formation and the resulting boreholes were backfilled with granular bentonite and hydrated with potable-water (de-ionized). The ground surface was patched with the appropriate sealant materials (concrete/asphalt) to existing grade.

3.2.4 Quality Assurance

5-Point Calibration

The initial five-point calibration consisted of 20, 50, 100, 200 and 500 µl injections of the calibration standard. A calibration factor on each analyte was generated using a best fit line method using the HP data system. If the r2 factor generated from this line was not greater than 0.990, an additional five-point calibration would have been performed. Method reporting limits were calculated to be 0.01-1.0 micrograms per Liter (µg/L) for the individual compounds.

A daily calibration check and end of run calibration check was performed using a pre-mixed standard supplied by Scotty Analyzed Gases. The standard contained common halogenated solvents and aromatic hydrocarbons (see Table 1). The individual compound concentrations in the standards ranged between 0.025 and 0.25 nanograms per microliter (ng/µL).

TABLE 1

Dichlorodifluoromethane	Carbon Tetrachloride	Chloroethane
Trichlorofluoromethane	1,2-Dichloroethane	Benzene
1,1-Dichloroethene	Trichloroethene	Toluene
Methylene Chloride	1,1,2-Trichloroethane	Ethylbenzene
trans-1,2-Dichloroethene	Tetrachloroethene	m-/p-Xylene
1,1-Dichloroethane	Chloroform	o-Xylene
cis-1,2-Dichloroethene	1,1,1,2-Tetrachloroethane	Vinyl Chloride
1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	Freon 113
4-Methyl-2-Pentanone	Cyclohexane	Acetone
Chlorobenzene	2-Butanone	Isobutane

Sample Replicates
A replicate analysis (duplicate) was run to evaluate the reproducibility of the sampling system and instrument. The difference between samples did not vary more than 20%.

Equipment Blanks
Blanks were run at the beginning of each workday and after calibrations. The blanks were collected using an ambient air sample. These blanks checked the septum, syringe, GC column, GC detector and the ambient air. Contamination was not found in any of the blanks analyzed during this investigation. Blank results are given along with the sample results.

Tracer Gas
A tracer gas was applied to the soil gas probes near each point of connection in which ambient air could enter the sampling system. These points include the top of the sampling probe where the tubing meets the probe connection and the surface bentonite seals. Isobutane was used as the tracer gas, found in common shaving cream. No Isobutane was found in any of the samples collected.

3.2.5 Post-Sampling Methods

Probes were removed from the subsurface and the boreholes were backfilled with hydrated bentonite chips following sampling activities. Boreholes advanced in improved areas were capped with concrete patch or asphalt to match existing ground cover after being backfilled. No significant amounts of derived wastes were generated during this investigation.

4.0 FINDINGS

4.1 Field Observations

Note that drilling activities performed in conjunction with the limited subsurface investigation did not include bulk sampling for lithologic review. However, based on a previous subsurface investigation and observations made with respect to the penetration depth of the sampling rods, vapor probes and resistance encountered while drilling (i.e. friction), an interpretation of shallow soil conditions was made. In general, it appears that the Subject Property is underlain by medium stiff, slightly moist, sandy silt with trace of clay from the ground surface to approximately 7 feet below ground surface. Groundwater was not encountered within the depths explored at any of the boring locations. No discernible odor was detected coming from any of the borings or from any of the samples. Significant discoloration and/or staining were not present within any of the soils observed.

4.2 Soil Gas Sample Analytical Results

Analysis was performed in an on-site mobile laboratory provided by Optimal Technology. In accordance with the request for proposal (RFP), chemical analysis was performed for Volatile Organic Compounds via Modified EPA Method 8260B by Gas Chromatography–Mass Spectrometry (GCMS).

The soil gas laboratory analytical report prepared by Optimal Technology indicated the following detectable concentrations of VOCs:

Soil Gas (Vapor) - PCE

LOCATION	Date Sampled	PCE (µg/L)	DTSC HERO HHRA Note Number: 3, DTSC-modified Screening Level - 2017* (µg/L)	Exceedance?
SV2-4'	October 18, 2017	0.20	2. 0	N
SV4-4'	October 18, 2017	0.91	2. 0	N
SV6-4'	October 18, 2017	0.14	2.0	N
SV7-4'	October 18, 2017	0.42	2.0	N

*Industrial/Commercial Soil

During this vapor investigation, four samples contained levels of Tetrachloroethene (PCE) ranging from 0.14 µg/L to 0.91 µg/L. None of the other compounds listed in Table 1 above were detected above the listed reporting limits. A complete table of analytical results is included with this report.

Concentration levels of PCE detected in four (4) soil vapor samples did not exceed the Department of Toxic Substances Control (DTSC) HERO HHRA NOTE NUMBER: 3, DTSC-modified Screening Levels for soil vapor of 2.0 µg/L of PCE in commercial/industrial settings. No other Volatile Organic Compounds (VOCs) were detected in any of the remaining soil vapor samples submitted for analysis.

5.0 CONCLUSIONS AND RECOMMENDATIONS

EDI has performed a subsurface investigation for the Subject Property located at 12751-12761 W. Washington Boulevard in the City of Culver City, Los Angeles County, California for Bastion Development Corporation (User of this Report). During this subsurface investigation, the laboratory results of sixteen (16) soil vapor samples collected during the limited subsurface investigation indicated tetrachloroethene (PCE) was detected in four (4) soil vapor samples ranging from 0.14 µg/L to 0.91 µg/L at a maximum depth of 4 feet bgs. No PCE was detected at 5 or 7 feet bgs. Concentration levels of PCE detected did not exceed the Department of Toxic Substances Control (DTSC) HERO HHRA NOTE NUMBER: 3, DTSC-modified Screening Levels for soil vapor of 2.00 µg/L of PCE in commercial/industrial settings. No other Volatile Organic Compounds (VOCs) were detected in any of the remaining soil vapor samples submitted for analysis. Due to the very low concentrations of PCE detected in soil vapor during this investigation, in-place soil in the areas assessed can likely be used for clean fill and will not require any special considerations for disposal as the commercial/industrial DTSC HERO screening level for soil is 2.7 part per million or 2,700.00 µg/L.

Based on the foregoing, EDI's professional opinion is that the Subject Property is absent of pervasive contamination from the former dry cleaning tenant and, therefore, **no further action** is warranted at this time with respect to the investigated areas assessed.

Attachment J

Title 24 Efficiency Report

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"63 Years Serving the Architectural and Development Communities"

Energy and Water Efficiency Compliance Report

HELLMAN & LOBER
CONSULTING MECHANICAL ENGINEERS

To: City of Los Angeles Department of City Planning

From: Hellman & Lober, Inc.

Date: July 20, 2022

Subject: CEQA Exemption (8) Energy and Water Efficiency Compliance for 12727 Washington Boulevard, Culver City CA

A. EXECUTIVE SUMMARY

The purpose of this memo is to describe how the proposed mixed used building located in 12727 Washington Blvd will meet the 21155.1 CEQA exemption for transit priority project subsection (a) (8) requirement for energy and water efficiency. The proposed building consists 6-story mixed used project with 144 residential units and 21,000 SF of retail space and 2,200 SF amenity. The building also includes two underground parking and an ADA parking in the first floor level.

The Subsection (a) (8) requirement:

The buildings in the transit priority project are 15 percent more energy efficient than required by Chapter 6 of Title 24 of the California Code of Regulations and the buildings and landscaping are designed to achieve 25 percent less water usage than the average household use in the region.

The energy and water efficiency compliance strategies are separately described below.

- **Energy Use. 17.4% better than allowed by Title 24, Part 6 2019**
- **Water Use. 27.4% below the MWD baseline**

B. ENERGY EFFICIENCY

Regulatory Framework

Subsection (a) (8) requires that a project be 15 percent more energy efficient than required by Title 24, Part 6, the California Energy Code *(note:* it's officially *Part* 6 of the California Code of Regulations, not *Chapter* 6 as it's titled in the CEQA language).

Title 24 is updated, typically every three years. Title 24 2019 has been approved and took effect January 1, 2020. Projects will need to comply under the Title 24 version in effect when filing a building permit application.Title 24, Part 6 provides two compliance paths:

1. The *Prescriptive Path,* under which projects must implement a specified list of strategies.

2. The *Performance Path,* under which projects use California Energy Commission- approved energy modeling software to demonstrate that projects meet the required level of energy performance (typically stated in kBTUs/square foot/year). Under the Performance Path, project teams can utilize any energy efficiency strategy as long as the required energy performance level is met.

To enable the Building Official to readily confirm compliance with the Subsection (a) (8) requirement of 15 percent more efficient than Title 24, Part 6, the project must use the Performance Path.

C. ENERGY MODELLING PROCESS

Preliminary whole building energy modeling was conducted to determine the anticipated Title 24 energy code performance. The following sections provide greater detail into the energy modeling process, the necessary design measures, and the resulting performance.

The preliminary energy modeling was done using Energypro Version 8.3 an approved software by the California Energy Commission for Title 24 compliance. Because a full compliance model requires a level of detail and design complexity not yet available for this project, we utilized the software in non-compliance mode to generate proposed and Title 24 baseline models to compare energy performance of the current design concepts.

Figure 1: Rendering South Façade - Washington Blvd.

Figure 2: Rendering South Façade – Zanja St.

Figure 3: Rendering East Corner South Façade.

1. Energy Model Input

The energy model considers the following characteristics of the Project: Site and Climate

The project is located in 12727 Washington Blvd. Culver City, CA

- Latitude / Longitude : 34.’ N / 118.4’ W
- Climate Zone : CA Zone 8
- Weather File : HAWTHORNE-NORTHROP-FLD_722956 CZ2010.epw
- Summer Design DB/WB : 88 deg. F/ 69 deg. F
- Winter Median of Extremes : 35 deg. F

2. Energy Efficiency Measures

The energy efficiency measures used in the design and analysis of the project are summarized in this section. The measures are organized into categories (building envelope, lighting, HVAC, domestic water heating and renewables).

Building Envelope

1. Wood-framed exterior walls with R-21 batt insulation: This

high density insulation provides a greater R-value which improves insulation and, hence, reduces heating and cooling energy use.

2. Wood-framed roofs with R-38 batt insulation: The thickness of the proposed insulation also increases the R-value, reducing heating and cooling energy use.
3. Overhanging balconies for solar shading: Projecting balconies provide shading for windows that keep solar heat out, which reduces cooling energy use. Another benefit is reduced glare, which makes the space more comfortable.
4. High-performance windows with dual-paned low-emissivity glazing: Dual-paned windows provide additional insulation over single-paned windows, while high performance, low-emissivity coatings help to let in mostly visible light while blocking unwanted wavelengths that let in heat without light. These combined effects reduce cooling energy during the summer and heating during the winter.

Lighting

1. Optimized façade to capitalize on natural daylight first: Optimizing the façade is a means of balancing the amount of glazing. Windows let in natural daylight, which allows electric lights to be turned off, but they also bring in additional heating and cooling when compared to an insulated wall. The result is a building that provides ample daylighting while not being excessive, decreasing overall lighting, heating and cooling energy use.
2. High-efficacy, LED lamp types for common areas: High-efficacy LED fixtures provide more lumens (light output) per watt (electric input) than other lamps like fluorescent or incandescent.
3. Daylighting controls for all indoor, nonresidential spaces: Also known as “daylight harvesting,” these controls sense the amount of natural daylight entering a space to automatically dim the electric lights, saving energy while maintaining light levels.
4. Occupancy controls with dimming for most common area lighting: Occupancy controls sense when spaces are vacant for a period of time and automatically turn off lights, saving energy as compared to leaving them on.

HVAC System

1. High-efficiency 19 SEER split system heat pumps for heating, ventilating and air-conditioning (HVAC) serving the residential units. Split system heat pumps have one outdoor unit connected to one indoor fan coil unit (FCU). Seasonal energy efficiency ratio (SEER) represents the “average” efficiency of HVAC equipment. By increasing this value over typical code-minimum efficiencies, the equipment consumes less electricity to provide heating and cooling. Providing individual systems for each apartment allows the system to be powered from the tenant’s electric meter, which tends to encourage more responsible use and lower energy consumption.
2. The public areas have been provided with VRF Heat Recovery units which is more efficient than standard split heat pump.

Domestic Water Heating

1. Centralized, condensing hot water system: Centralized water heating systems are larger and use more efficient equipment than individual heating within the units. Condensing systems offer higher efficiencies (”95%) as compared with non-condensing units (”80%). They have recirculation controls to keep water in the lines hot and reduce wasted water. They also make it easier to integrate into renewable energy systems like solar hot water.
2. High-efficiency water fixtures: Using more efficient fixtures inherently uses less hot water, which reduces energy used for water heating (also saving potable water). This is not considered in the energy model, but is certainly an added sustainability measure.

Energy Model Results

Energy modeling resulted in a preliminary design that anticipates using

17.4% better than Title 24-2019 energy code requirements. Refer to the table and figure below to see additional details about the result by each energy end-use at this stage. See APPENDIX A for additional information.

C1. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft ²-yr)			
COMPLIES			
Energy Component	**Standard Design (TDV)**	**Proposed Design (TDV)**	**Compliance Margin (TDV)[1]**
Space Heating	2.74	1.66	1.08
Space Cooling	26.29	21.30	4.99
Indoor Fans	16.09	12.53	3.56
Heat Rejection	1.07	--	1.07
Pumps & Misc.	2.66	--	2.66
Domestic Hot Water	17.16	16.25	0.91
Indoor Lighting	16.10	16.10	--
ENERGY STANDARDS COMPLIANCE TOTAL	**82.11**	**67.84**	**14.27 (17.4%)**
[1] Notes: The number in parenthesis following the Compliance Margin in column 4. represents the Percent Better than Standard.			

Disclaimer

Estimates of cost or energy savings represent HLI's professional opinion. Energy savings and costs may be affected by factors outside of HLI control and HLI does not guarantee or represent that the actual cost or energy consumption will not vary from any such estimates.

The modeling approach taken does not guarantee compliance with code or that all credits submitted will be achieved. It will be a collaborative effort to ensure that the project as a whole achieves its energy related goals. All savings and cost estimates in the report are for informational purposes and are not to be construed as a design document or as guarantees.

APPENDIX A: ENERGY MODEL INPUTS

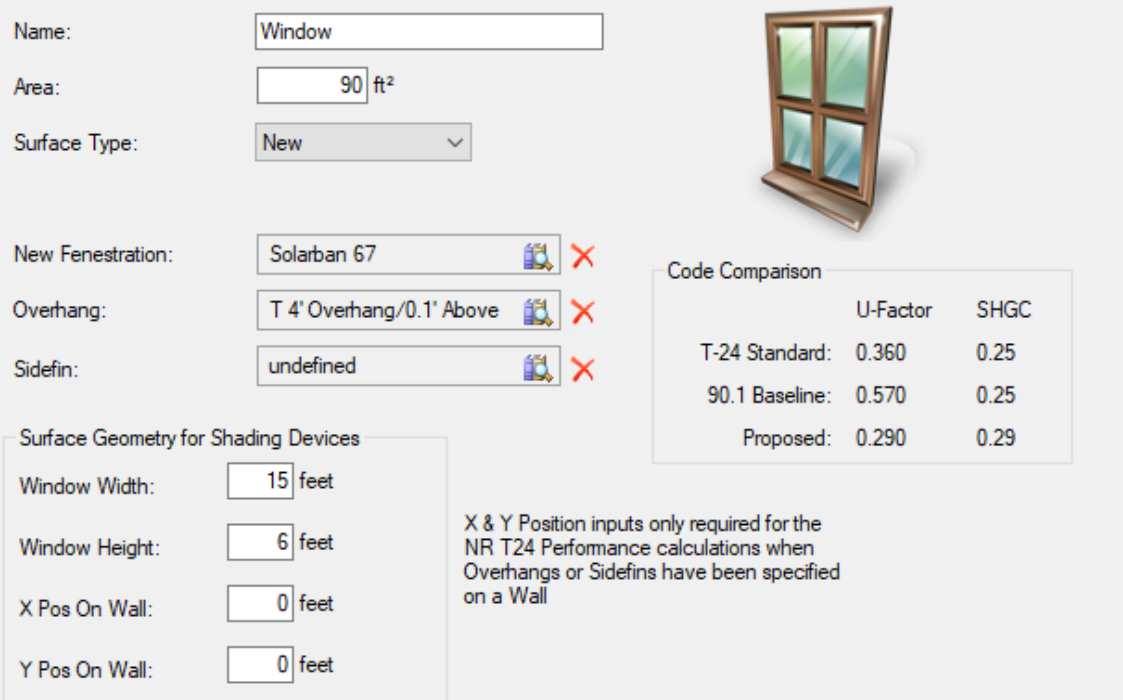
This section provides information on the detailed information that was specified in the energy models. The tables include:

- Characteristics of Fenestration — Describes the window framing and glazing properties used for the proposed design as well as for the Title 24 Standard building model.
- Characteristics of Opaque Constructions — Describes the roof, wall and floor construction types for the proposed design as well as for the Title 24 Standard building model.

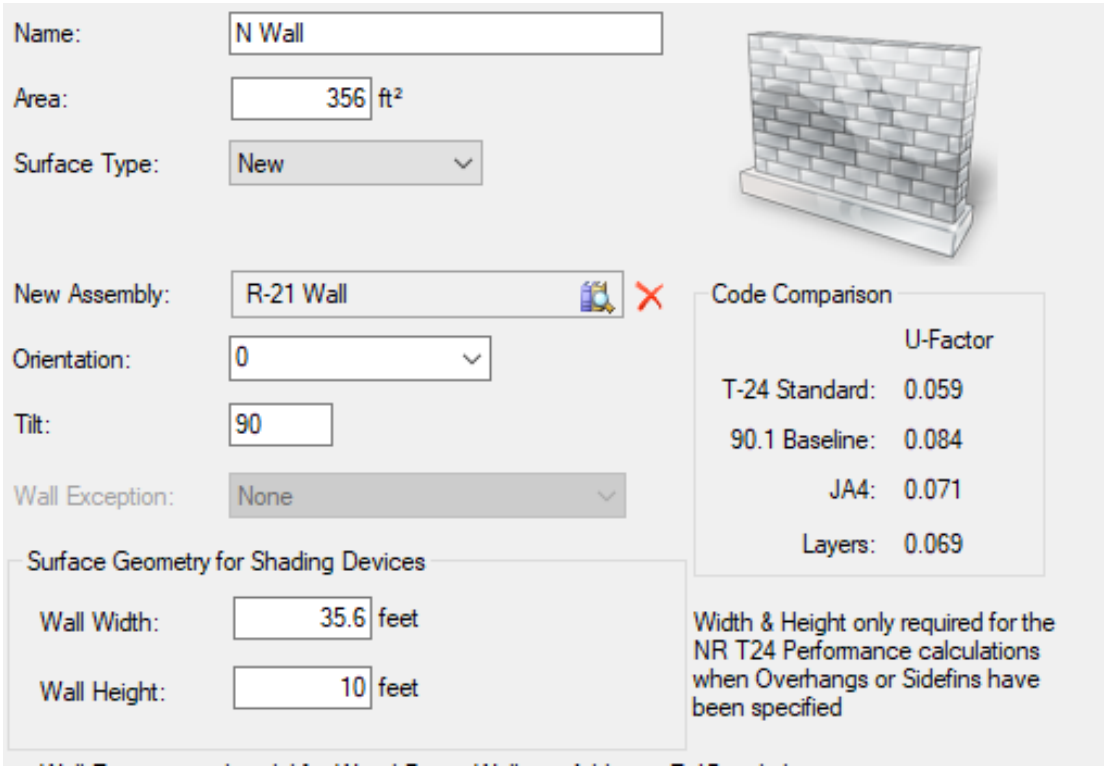
- Characteristics of HVAC and DHW Systems — Describes the heating, ventilation and air-conditioning (HVAC) and domestic hot water (DHW) systems in the proposed design model as well as for the Title 24 Standard building model.

Each table lists both the characteristics of the proposed design and that of the Title 24 Standard building so that they can be compared against one another. For example, the proposed roof has a better U-factor than the Title 24 model, which means the proposed roof will provide more insulating value and, hence, lower heat loss in the winter and heat gain in the summer.

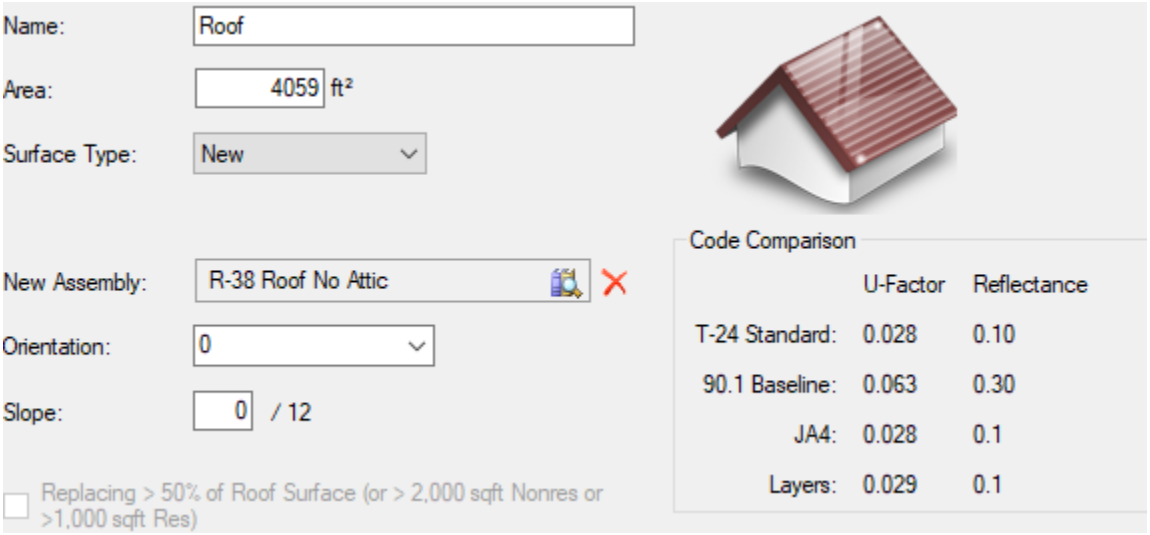
- FENESTRATION: Dual Pane Low-E



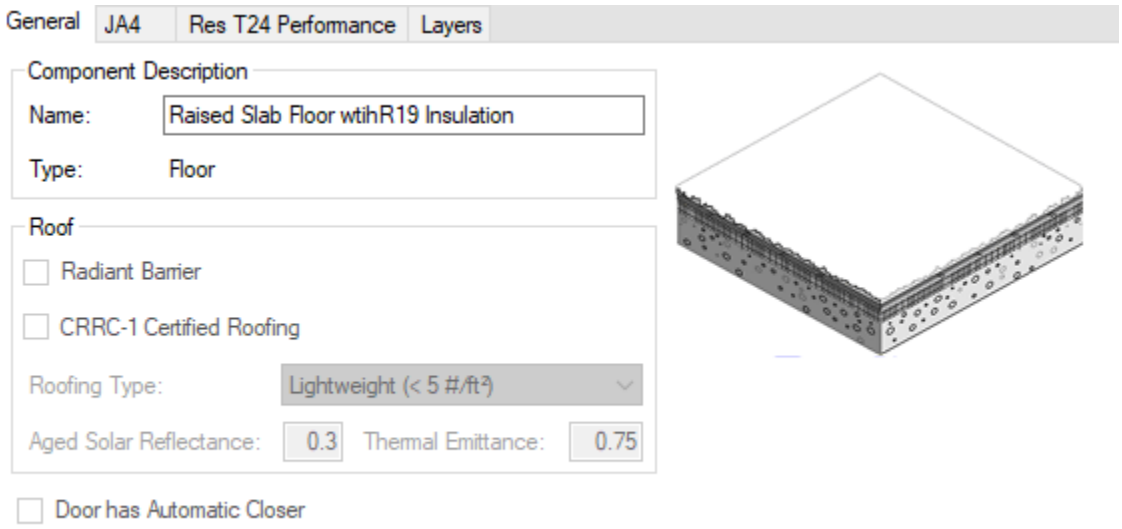
- WALL: Wood Framed with R21 Batt Insulation



- ROOF: Wood Framed with R38 Batt Insulation



- RAISED FLOOR: Concrete Slab with R19 Insulation



D. WATER EFFICIENCY

1. Regulatory Framework

Public Resources Code Sec. 21155.1 (a)(8) requires that each project achieve a 25 percent water use reduction from the *regional average household water use.*

The Project will be required to comply with Ordinance No. 170,978 (Water Management Ordinance), which imposes numerous water conservation measures and Ordinance No. 180,822 (Water Efficiency Requirements for New Development). It will also comply with the 2017 Los Angeles Green Building Standards Code which contains higher standards for water use efficiency than the 2017 California Green Building Standards Code (CalGreen). Table 1 in the previous section shows the comparison of maximum allowable fixture flow rates between the two building codes.

According to the *Metropolitan Water District Water Tomorrow Annual Report to the California State Legislature, Covering Fiscal Year 2015/16 (page 2),* the average regional Gallons Per Capita Per Day Usage (p. 2) is 131 gallons (http://www.mwdh2o.com/PDF_About_Your_Water/SB60_2017_condensed.pdf) [Accessed 07/19/2018].

Per the *City Planning Demographics Unit - 2016,* the Los Angeles average multifamily unit household size is 2.43. Therefore, the average Los Angeles multi-family residence water use per day is 318.33 gallons (131 gallons x 2.43 people).

2. Water Efficient Features of the Project

The following are some of the water efficient features of the Project. They are based on applicable California Green Building Code and City of Los Angeles Building Code requirements:

- High Efficiency Toilets with flush volume of 1.28 gallons of water per flush or less
- High Efficiency Urinals with 0.125 GPF
- Showerheads with flow rate of 1.8 gallons per minute or less
- High Efficiency Clothes Washers - residential with Energy Star certification
- Lavatory Faucet with flow rate of 0.5 gallons per minute or less for Commercial and 1.5 gallons per minutes for Residential
- Kitchen Faucets with flow rate of 1.5 gallons per minute or less for Retail/Commercial
- Domestic Water Heating System located proximity to point(s) of use
- Water-Saving Pool Filter
- Pool/Spa recirculating filtration equipment
- Pool splash troughs around the perimeter that drain back into the pool
- Meter on the pool make-up line Leak Detection System for swimming pools and spas
- Drip/Subsurface Irrigation (Micro-Irrigation)
- Proper Hydro-zoning/ (groups plants with similar water requirements together)
- Zoned Irrigation
- Landscaping Contouring to minimize precipitation runoff
- Drought Tolerant Plants

3. Water Use Calculation

The following table shows the estimated water usage of the Project taking into consideration detailed project information, including the quantity and type of fixtures, occupant use, irrigation demand and amenities water use.

Residential water use is based on the calculation that 144 dwelling

units would result in an estimated 433 occupants, per City Planning Demographics Unit (2016) rate of 2.43 occupants per unit. The occupant use of the Amenity and Common areas are based on Table A, Chapter 4 of the California Plumbing Code. The irrigation demand was calculated by the landscape architect per California Water Efficient Landscape Ordinance. The water use of the pool and water features was calculated by the pool consultant.

Table 4. Title 24 Part 11 CalGreen Whole Building Water Use Calculation

Fixture Type	Flow Rate[1] (gpm/gpf)		Duration (min or # flush)		Daily Uses'		Occupants'		Proposed Gallons per Day
RESIDENTIAL WATER USE									
Showerheads	1.8	x	8	x	1	x	433	=	6,235.20
Lavatory faucets	1.2	x	0.25	x	5	x	433	=	649.50
Kitchen faucets	1.5	x	4	x	1	x	433	=	2,598.00
Water closets (M)	1.28	x	1	x	5	x	216.5	=	1,385.60
Water closets (F)	1.28	x	1	x	5	x	216.5	=	1,385.60
Clothes washers (gal/person-day)'					5.08	x	433	=	2,199.64
Dishwashers (gal/person-day) [6]					0.43	x	433	=	186.19
Residential Total									14,639.73
RETAIL WATER USE									
Lavatory faucets	0.4	x	0.25	x	3	x	26	=	7.8
Water closets (M)	1.28	x	1	x	3	x	13	=	49.92
Water closets (F)	1.28	x	1	x	3	x	13	=	49.92
Urinal	0.125	x	1	x	2	x	13	=	3.25
Retail Total									110.89
RESTAURANT WATER USE									
Lavatory	0.4	x	0.25	x	3	x	260	=	78

faucets									
Kitchen sinks	1.8	x	4	x	3	x	260	=	5,616
Waterclosets(M)	1.28	x	1	x	3	x	130	=	499.2
Waterclosets(F)	1.28	x	1	x	3	x	130	=	499.2
Urinal	0.125	x	1	x	2	x	130	=	32.5
Comm.Dishwasher	1.67	x	60	x	4	x		=	400.8
Restaurant Total									7,125.70

AMENITY / COMMON AREA WATER USE				
Room	Area	Occupant Load Factor'	Occupants	Gallons per Day
Fitness[7]	2,773	30	92	2008.73
Plaza/Roof Terrace[7]	15,674	200	78	1,697.02
Community Rooms[7]	3,693	30	123	528.86
[illegible][8,8a]				433
Spa[9,9a]				83
Water Feature[10]				125
Irrigation[11]				421.53
Cooling Tower[10]				8,112
Parking Structure[10]	117,589 sq. ft.			2,351.78
Amenity / Common Area Total				15,760.92

OFFICE WATER USE				
Office[7]	31,508	200	158	3,517.87
Office Total				3,517.87
Proposed Design — Total Water Demand (GPD)				41,155.11
Proposed Design - Water Use / Household (GPD)				231.21
Baseline — Total Water Demand (GPD)[14]				56,662.74
Baseline - Water Use / Household (GPD)[14]				318.33
PERCENT REDUCTION FROM BASELINE				27.4%

Notes

1. Flow rates are the maximum allowed under City of Los Angeles Green Building Code (Form GRN 17).

2. Daily uses per CalGreen Building Standards Code, Chapter 8 - Compliance Forms, Worksheets and Reference Material.
3. For Residential Water Use occupancy based on 144 dwelling units x 2.43 occupants per household. For Retail and Restaurant Water Use occupancy based on load factor per CPC Section 422.0, Table A.
4. Occupancy load factor per CPC Section 422.0, Table A.
5. Clothes Washer in each unit. Los Angeles Green Building Code requires Energy Star certified units. Typical Energy Star unit = 3.2 WF (Water Factor) = 5.08 gal per person per day.
6. Dishwasher assumed in each unit. Los Angeles Green Building Code requires Energy Star certified units. Typical Energy Star unit = 4 GPC (Gallons per Cycle) = 0.43 gal per person per day.
7. Amenity / Common Area square footage based on architectural plans.
    a. Per pool consultant, pool surface 908.25 SF. Approx. %" loss per day (splash and evaporation), or 425 gallons to be made up per day.Based on the draining half of the pool every five (5) years. Pool capacity of 25,544 gallons. (25,544 gallons / 0.5) / 5 years = 2,555 gallons per year or 7 gallons per day.
8. Per pool consultant, spa surface 130 SF. Approx. 1" loss per day (splash and evaporation), or 82 gallons to be made up per day.
    a. Based on the draining half of the spa every five (5) years. Spa capacity of 130 gallons. (130 gallons / 0.5) / 5 years = 220 gallons per year or 0.6 gallons per day.
9. Water feature estimate surface 200 SF. Approx. 1" loss per day, or 125 gallons to be made up per day.
10. Irrigation usage is based on the Maximum Applied Water Allowance from the California Water Model Efficiency Landscape Ordinance. 153,859 gallons per year (421.53 gallons per day.)
11. Based on 26 gpm evaporation for the two (2) cooling towers with operation at 8 hours per day, 7 days per week and 65% load capacity.
12. Based on the City of Los Angeles Department of Public

Works - Bureau of Sanitation Sewer Generation Rates
(0.02 gallons per sq. ft.)

13. Based on the regional average for Los Angeles multi-family residence water demand per day of
318.33 gallons (131 gallons x 2.43 people). The Project has 144 residenial units.

4. Water Usage

It is estimated that the Project will use an average of 41,155.11 gallons per day of water. With 144 residential units, the household water use is approximately 231.21 gallons per day, compared to the baseline calculation of 318.33 gallons per day.

In conclusion, the Project is designed to achieve approximately 27.4% less water usage than the average household in the region.

These calculations are used to show a relative comparison between the Project and the regional average household water use. There are a range of water efficiency measures that can achieve the required reduction. The final combination of water efficient features is best selected during the final design of the Project, when other options may be considered.

City of Los Angeles

Los Angeles Department of Water and Power - Water System

SAR NUMBER **98736**

Fire Service Pressure Flow Report

SERVICE NUMBER **639648**

For: **12727 WASHINGTON BLVD** Approved Date: **7-12-2022**

Proposed Service **8 INCH** off of the

8 inch main in **ZANJA ST** on the **SOUTH** side approximately

100 feet **NORTH** of **NORTH** of **WASHINGTON BLVD** The System maximum pressure is

78 psi based on street curb elevation of **41** feet above sea level at this location.

The distance from the DWP street main to the property line is 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	60	2190	42		
460	59	2255	41		
670	58	2320	40		
830	57	2380	39		
970	56	2440	38		
1095	55	2500	37		
1210	54				
1315	53				
1415	52				
1505	51				
1595	50				
1680	49				
1760	48				
1835	47				
1910	46				
1985	45				
2055	44				
2125	43				

These values are subject to change due to changes in system facilities or demands.

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

Notes: DO NOT SELL SERVICE. Customer will need to make financial arrangements for 50'-8" main extension in addition to all new service fees in order to provide water service at this location. Fire flows on this form are for 8" FS only. DO NOT SELL COMBO.

This information will be sent to the Department of Building and Safety for plan checking.

This SAR is valid for one year from 07-12-22. Once the SAR expires, the applicant needs to re-apply and pay applicable processing fee.

For additional information contact the Water Distribution Services Section **WESTERN (213) 367-1225**

MARK PATTERSON	MARK PATTERSON	110-153
Prepared by	**Approved by**	**Water Service Map**

Attachment K

Southern California Association of Governments 2020 Regional Transportation Plan/Sustainable Communities Strategy EIR Applicable Mitigation Measures

Public Resources Code (PRC) Section 21155.1(b)(5) requires that any applicable mitigation measures, performance standards, or criteria set forth in the prior environmental impact reports (EIRs), and adopted findings, have been or will be incorporated into the transit priority project, including the 2020-2045 RTP/SCS Program EIR for SCAG in September 2020.

The Triangle Centre Mixed-Use Sustainable Communities Project would be subject to the following mitigation measures in the Southern California Association of Governments (SCAG) 2020—2045 Regional Transportation Plan/Sustainable Communities Strategy Program EIR.[1]

AIR QUALITY

PMM AQ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. Minimize land disturbance.
b. Suspend grading and earth moving when wind gusts exceed 25 miles per hour unless the soil is wet enough to prevent dust plumes.
c. Cover trucks when hauling dirt.
d. Stabilize the surface of dirt piles if not removed immediately.
e. Limit vehicular paths on unpaved surfaces and stabilize any temporary roads.
f. Minimize unnecessary vehicular and machinery activities.
g. Sweep paved streets at least once per day where there is evidence of dirt that has been carried on to the roadway.
h. Revegetate disturbed land, including vehicular paths created during construction to avoid future off-road vehicular activities.
i. On Caltrans projects, Caltrans Standard Specifications 10-Dust Control, 17-Watering, and 18- Dust Palliative shall be incorporated into project specifications.
j. 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 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.
k. Ensure that all construction equipment is properly tuned and maintained.
l. Minimize idling time to 5 minutes or beyond regulatory requirements—saves fuel and reduces emissions.

1 Southern California Association of Governments (SCAG), *2020—2045 Regional Transportation Plan/Sustainable Communities Strategy Program EIR*, (September 2020).

m. 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.

n. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.

o. Develop a traffic plan to minimize community impacts because of 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. Project sponsors should consider developing a goal for the minimization of community impacts.

p. As appropriate require that portable engines and portable engine-driven equipment units used at the project work site, except for 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.

q. Require projects to use Tier 4 Final equipment or better for all engines above 50 horsepower (hp). In the event that construction equipment cannot meet to Tier 4 Final engine certification, the Project representative or contractor must demonstrate through future study with written findings supported by substantial evidence that is approved by SCAG before using other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, construction equipment with Tier 4 Interim or reduction in the number and/or horsepower rating of construction equipment and/or limiting the number of construction equipment operating at the same time. All equipment must be tuned and maintained in compliance with the manufacturer's recommended maintenance schedule and specifications. All maintenance records for each equipment and their contractor(s) should make available for inspection and remain on-site for a period of at least two years from completion of construction unless the individual project can demonstrate that Tier 4 engines would not be required to mitigate emissions below significance thresholds. Project sponsors should also consider including ZE/ZNE technologies where appropriate and feasible.

r. Projects located within the South Coast Air Basin should consider applying for South Coast AQMD "SOON" funds which provides funds to applicable fleets for the purchase of commercially available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles.

s. Projects located within AB 617 communities should review the applicable Community Emissions Reduction Plan (CERP) for additional mitigation that can be applied to individual projects.

t. Where applicable, projects should provide information about air quality related programs to schools, including the Environmental Justice Community Partnerships (EJCP), Clean Air Ranger Education (CARE), and Why Air Quality Matters programs.

u. Projects should work with local cities and counties to install adequate signage that prohibits truck idling in certain locations (e.g., near schools and sensitive receptors).

v. As applicable for airport projects, the following measures should be considered:

   i. Considering operational improvements to reduce taxi time and auxiliary power unit usage, where feasible. Additionally, consider single engine

taxing, if feasible as allowed per Federal Aviation Administration guidelines.

ii. Set goals to achieve a reduction in emissions from aircraft operations over the lifetime of the proposed project.

iii. Require the use of ground service equipment (GSE) that can operate on battery-power. If electric equipment cannot be obtained, require the use of alternative fuel, the cleanest gasoline equipment, or Tier 4, at a minimum.

w. As applicable for port projects, the following measures should be considered:

i. Develop specific timelines for transitioning to zero emission cargo handling equipment (CHE).

ii. Develop interim performance standards with a minimum amount of CHE replacement each year to ensure adequate progress.

iii. Use short side electric power for ships, which may include tugboats and other ocean-going vessels or develop incentives to gradually ramp up the usage of shore power.

iv. Install the appropriate infrastructure to provide shore power to operate the ships. Electrical hookups should be appropriately sized.

v. Maximize participation in the Port of Los Angeles' Vessel Speed Reduction Program or the Port of Long Beach's Green Flag Initiation Program in order to reduce the speed of vessel transiting within 40 nautical miles of Point Fermin.

vi. Encourage the participation in the Green Ship Incentives.

vii. Offer incentives to encourage the use of on-dock rail.

x. As applicable for rail projects, the following measures should be considered:

i. Provide the highest incentives for electric locomotives and then locomotives that meet Tier 5 emission standards with a floor on the incentives for locomotives that meet Tier 4 emission standards.

y. Projects that will introduce sensitive receptors within 500 feet of freeways and other sources should consider installing high efficiency of enhanced filtration units, such as Minimum Efficiency Reporting Value (MERV) 13 or better. Installation of enhanced filtration units can be verified during occupancy inspection prior to the issuance of an occupancy permit.

z. Develop an ongoing monitoring, inspection, and maintenance program for the MERV filters.

i. Disclose potential health impacts to prospective sensitive receptors from living in close proximity to freeways or other sources of air pollution and the reduced effectiveness of air filtration systems when windows are open, or residents are outside.

ii. Identify the responsible implementing and enforcement agency to ensure that enhanced filtration units are installed on-site before a permit of occupancy is issued.

iii. Disclose the potential increase in energy costs for running the HVAC system to prospective residents.

iv. Provide information to residents on where MERV filters can be purchased.

v. Provide recommended schedule (e.g., every year or every six months) for replacing the enhanced filtration units.

vi. Identify the responsible entity such as future residents themselves, Homeowner's Association, or property managers for ensuring enhanced filtration units are replaced on time.

vii. Identify, provide, and disclose ongoing cost-sharing strategies, if any, for replacing the enhanced filtration units.

viii. Set criteria for assessing progress in installing and replacing the enhanced filtration units; and

ix. Develop a process for evaluating the effectiveness of the enhanced filtration units.

aa. Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities

CULTURAL RESOURCES

PMM-CUL-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to historical resources, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. Pursuant to CEQA Guidelines Section 15064.5, conduct a record search during the project planning phase at the appropriate Information Center to determine whether the project area has been previously surveyed and whether historical resources were identified.
b. During the project planning phase, retain a qualified architectural historian, defined as an individual who meets the Secretary of the Interior's (SOI) Professional Qualification Standards (PQS) in Architectural History, to conduct historic architectural surveys if a built environment resource greater than 45 years in age may be affected by the project or if recommended by the Information Center.
c. Comply with Section 106 of the National Historic Preservation Act (NHPA) including, but not limited to, projects for which federal funding or approval is required for the 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:
    - 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.
    - Where feasible, noise buffers/walls and/or visual buffers/landscaping should be constructed to preserve the contextual setting of significant built resources.
d. If a project requires the relocation, rehabilitation, or alteration of an eligible historical resource, the Secretary of the Interior's Standards for the Treatment of Historic Properties should be used to the maximum extent possible to ensure the historical significance of the resource is not impaired. The application of the standards should be overseen by an architectural historian or

historic architect meeting the SOI PQS. Prior to any construction activities that may affect the historical resource, a report, meeting industry standards, should identify and specify the treatment of character-defining features and construction activities and be provided to the Lead Agency for review and approval.

e. If a project would result in the demolition or significant alteration of a historical resource eligible for or listed in the National Register of Historic Places (NRHP), California Register of Historical Resources (CRHR), or local register, recordation should take the form of Historic American Buildings Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and should be performed by an architectural historian or historian who meets the SOI PQS. Recordation should meet the SOI Standards and Guidelines for Architectural and Engineering, which defines the products acceptable for inclusion in the HABS/HAER/HALS collection at the Library of Congress. The specific scope and details of documentation should be developed at the project level in coordination with the Lead Agency.
f. During the project planning phase, obtain a qualified archaeologist, defined as one who meets the SOI PQS for archaeology, to conduct a record search at the appropriate Information Center of the California Historical Resources Information System (CHRIS) to determine whether the project area has been previously surveyed and whether resources were identified.
g. Contact the NAHC to request a Sacred Lands File search and a list of relevant Native American contacts who may have additional information.
h. During the project planning phase, obtain a qualified archaeologist or architectural historian (depending on applicability) to conduct archaeological and/or historic architectural surveys as recommended by the qualified professional, the Lead Agency, or the Information Center. In the event the qualified professional or Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources. Survey shall be conducted where the records indicate that no previous survey has been conducted, or if survey has not been conducted within the past 10 years. If tribal resources are identified during tribal outreach, consultation, or the record search, a Native American representative traditionally affiliated with the project area, as identified by the NAHC, shall be given the opportunity to provide a representative or monitor to assist with archaeological surveys.
i. If potentially significant archaeological resources are identified through survey, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation should be performed by a qualified archaeologist prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and avoidance is not possible, appropriate resource-specific mitigation measures should be established by the lead agency, in consultation with consulting tribes, where appropriate, and undertaken by qualified personnel. These might include a Phase III data recovery program implemented by a qualified archaeologist and performed in accordance with the OHP's Archaeological Resource Management Reports (ARMR): Recommended Contents and Format and Guidelines for Archaeological Research Designs. Additional options can include 1) interpretative signage, or 2) educational outreach that helps inform the public of the past activities that occurred in this area. Should the project require extended Phase I testing, Phase II evaluation, or Phase III data recovery, a Native American representative traditionally affiliated with the project area, as indicated by the NAHC, shall be given the opportunity to provide a

representative or monitor to assist with the archaeological assessments. The long-term disposition of archaeological materials collected from a significant resource should be determined in consultation with the affiliated tribe(s), where relevant; this could include curation with a recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe.

j. In cases where the project area is developed and no natural ground surface is exposed, sensitivity for subsurface resources should be assessed based on review of literature, geology, site development history, and consultation with tribal parties. If this archaeological desktop assessment indicates that the project is located in an area sensitive for archaeological resources, as determined by the Lead Agency in consultation with a qualified archaeologist, the project should retain an archaeological monitor and, in the case of sensitivity for tribal resources, a tribal monitor, to observe ground disturbing operations, including but not limited to grading, excavation, trenching, or removal of existing features of the subject property. The archaeological monitor should be supervised by an archaeologist meeting the SOI PQS
k. 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, and/or as appropriate, a qualified architectural historian who should make recommendations regarding the work necessary to assess significance. If the cultural resource is determined to be significant under state or federal guidelines, impacts to the cultural resource will need to be mitigated.
l. Stop construction activities and excavation in the area where cultural resources are found until a qualified archaeologist can determine whether these resources are significant, and tribal consultation can be conducted, in the case of tribal resources. If the archaeologist determines that the discovery is significant, its long-term disposition should be determined in consultation with the affiliated tribe(s); this could include curation with a recognized scientific or educational repository, transfer to the tribe, or respectful reinternment in an area designated by the tribe.

PMM-CUL-2: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to human remains, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. 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 that no investigation of the cause of death is required.
b. If any discovered remains are of Native American origin, as determined by the county Coroner, an experienced osteologist, or another qualified professional:
    - Contact the County Coroner to contact the NAHC to designate a Native American Most Likely Descendant (MLD). The MLD 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. In some cases, it is necessary for the Lead Agency,

qualified archaeologist, or developer to also reach out to the NAHC to coordinate and ensure notification in the event the Coroner is not available.

- If the NAHC is unable to identify a MLD, or the MLD fails to make a recommendation within 48 hours after being notified by the commission, or the landowner or his representative rejects the recommendation of the MLD and the mediation by the NAHC fails to provide measures acceptable to the landowner, obtain a culturally affiliated 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.

GREENHOUSE GAS EMISSIONS

PMM-GHG-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to greenhouse gas emissions, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. Integrate green building measures consistent with CALGreen (California Building Code Title 24), local building codes and other applicable laws, into project design including:
    i. Use energy efficient materials in building design, construction, rehabilitation, and retrofit.
    ii. Install energy-efficient lighting, heating, and cooling systems (cogeneration); water heaters; appliances; equipment; and control systems.
    iii. Reduce lighting, heating, and cooling needs by taking advantage of light-colored roofs, trees for shade, and sunlight.
    iv. Incorporate passive environmental control systems that account for the characteristics of the natural environment.
    v. Use high-efficiency lighting and cooking devices.
    vi. Incorporate passive solar design.
    vii. Use high-reflectivity building materials and multiple glazing.
    viii. Prohibit gas-powered landscape maintenance equipment.
    ix. Install electric vehicle charging stations.
    x. Reduce wood burning stoves or fireplaces.
    xi. Provide bike lanes accessibility and parking at residential developments
b. Reduce emissions resulting from projects through implementation of project features, project design, or other measures, such as those described in Appendix F of the State CEQA Guidelines.
c. Include off-site measures to mitigate a project's emissions.
d. 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:
    i. Use energy and fuel-efficient vehicles and equipment;
    ii. Deployment of zero- and/or near zero emission technologies;
    iii. Use lighting systems that are energy efficient, such as LED technology;
    iv. Use the minimum feasible amount of GHG-emitting construction materials;

v. Use cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
vi. Incorporate design measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse;
vii. Incorporate design measures to reduce energy consumption and increase use of renewable energy;
viii. Incorporate design measures to reduce water consumption;
ix. Use lighter-colored pavement where feasible;
x. Recycle construction debris to maximum extent feasible;
xi. Plant shade trees in or near construction projects where feasible; and
xii. Solicit bids that include concepts listed above.

e. Measures that encourage transit use, carpooling, bike-share and car-share programs, active transportation, and parking strategies, including, but not limited to the following:
i. Promote transit-active transportation coordinated strategies;
ii. Increase bicycle carrying capacity on transit and rail vehicles;
iii. Improve or increase access to transit;
iv. Increase access to common goods and services, such as groceries, schools, and day care;
v. Incorporate affordable housing into the project;
vi. Incorporate the neighborhood electric vehicle network;
vii. Orient the project toward transit, bicycle and pedestrian facilities;
viii. Improve pedestrian or bicycle networks, or transit service;
ix. Provide traffic calming measures;
x. Provide bicycle parking;
xi. Limit or eliminate park supply;
xii. Unbundle parking costs;
xiii. Provide parking cash-out programs;
xiv. Implement or provide access to commute reduction program.

f. Incorporate bicycle and pedestrian facilities into project designs, maintaining these facilities, and providing amenities incentivizing their use; and planning for and building local bicycle projects that connect with the regional network;

g. 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; and

h. Adopting employer trip reduction measures to reduce employee trips such as vanpool and carpool programs, providing end-of-trip facilities, and telecommuting programs including but not limited to measures that:
i. Provide car-sharing, bike sharing, and ride-sharing programs;
ii. Provide transit passes;
iii. Shift single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services;
iv. Provide incentives or subsidies that increase that use of modes other than single-occupancy vehicle;
v. Provide on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms;

vi. Provide employee transportation coordinators at employment sites;
vii. Provide a guaranteed ride home service to users of non-auto modes.

i. Designate a percentage of parking spaces for ride-sharing vehicles or high-occupancy vehicles, and provide adequate passenger loading and unloading for those vehicles;
j. Land use siting and design measures that reduce GHG emissions, including:
    i. Developing on infill and brownfields sites;
    ii. Building compact and mixed-use developments near transit;
    iii. Retaining on-site mature trees and vegetation, and planting new canopy trees;
    iv. 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
    v. Measures to reduce GHG emissions from solid waste management through encouraging solid waste recycling and reuse.
k. Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities. The measures provided above are also intended to be applied in low income and minority communities as applicable and feasible.

HAZARDS AND HAZARDOUS MATERIALS

PMM-HAZ-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to the routine transport, use, or disposal of hazardous materials, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. 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.
b. Specify Project requirements for interim storage and disposal of hazardous materials during construction and operation. Storage and disposal strategies must be consistent with applicable federal, state, and local statutes and regulations. 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 business plan for projects as applicable and appropriate.
c. 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:
    - The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.
    - The location of such hazardous materials.

- An emergency response plan including employee training information.
- A plan that describes the way these materials are handled, transported and disposed

d. Follow manufacturer's recommendations on use, storage, and disposal of chemical products used in construction.
e. Avoid overtopping construction equipment fuel gas tanks.
f. Properly contain and remove grease and oils during routine maintenance of construction equipment.
g. Properly dispose of discarded containers of fuels and other chemicals.
h. Prior to shipment remove the most volatile elements, including flammable natural gas liquids, as feasible.
i. Identify and implement more stringent tank car safety standards.
j. Improve rail transportation route analysis, and modification of routes based on that analysis.
k. Use the best available inspection equipment and protocols and implement positive train control.
l. Reduce train car speeds to 40 miles per hour when passing through urbanized areas of any size.
m. Limit storage of crude oil tank cars in urbanized areas of any size and provide appropriate security in storage yards for all shipments.
n. Notify in advance county and city emergency operations offices of all crude oil shipments, including a contact number that can provide real-time information in the event of an oil train derailment or accident.
o. Report quarterly hazardous commodity flow information, including classification and characterization of materials being transported, to all first response agencies (49 Code Fed. Regs. 15.5) along the mainline rail routes used by trains carrying crude oil identified.
p. Fund training and outfitting emergency response crews that includes the cost of backfilling personnel while in training.
q. Undertake annual emergency responses scenario/field based training including Emergency Operations Center Training activations with local emergency response agencies.

NOISE

PMM-NOISE-1: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects that physically divide a community, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. Install temporary noise barriers during construction.
b. Include permanent noise barriers and sound-attenuating features as part of the project design. Barriers could be in the form of outdoor barriers, sound walls, buildings, or earth berms to attenuate noise at adjacent sensitive uses.
c. Schedule construction activities consistent with the allowable hours pursuant to applicable general plan noise element or noise ordinance
d. 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.

e. 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.
f. Designate an on-site construction complaint and enforcement manager for the project.
g. Ensure that construction equipment are properly maintained per manufacturers' specifications and fitted with the best available noise suppression devices (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded.
h. Use hydraulically or electrically powered tools (e.g., jack hammers, pavement breakers, and rock drills) for project construction 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 should be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used, if such jackets are commercially available, and this could achieve a further reduction of 5 dBA. Quieter procedures should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.
i. 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.
j. Where feasible, improve the acoustical insulation of dwelling units where setbacks and sound barriers do not provide sufficient noise reduction.
k. Using rubberized asphalt or "quiet pavement" to reduce road noise for new roadway segments, roadways in which widening or other modifications require re-pavement, or normal reconstruction of roadways where re-pavement is planned
l. Projects that require pile driving or other construction noise above 90 dBA in proximity to sensitive receptors, should reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90 dBA; a set of site-specific noise attenuation measures should be completed under the supervision of a qualified acoustical consultant.
m. Use land use planning measures, such as zoning, restrictions on development, site design, and buffers to ensure that future development is compatible with adjacent transportation facilities and land uses;
n. Monitor the effectiveness of noise reduction measures by taking noise measurements and installing adaptive mitigation measures to achieve the standards for ambient noise levels established by the noise element of the general plan or noise ordinance.
o. Use equipment and trucks with the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds, wherever feasible) for project construction.
p. Stationary noise sources can and should be located as far from adjacent sensitive receptors as possible and they should be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the Lead Agency (or other appropriate government agency) to provide equivalent noise reduction.
q. Use of portable barriers in the vicinity of sensitive receptors during construction.

r. Implement noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings (for instance by the use of sound blankets), and implement if such measures are feasible and would noticeably reduce noise impacts.
s. Monitor the effectiveness of noise attenuation measures by taking noise measurements.
t. Maximize the distance between noise-sensitive land uses and new roadway lanes, roadways, rail lines, transit centers, park-and-ride lots, and other new noise-generating facilities.
u. Construct sound reducing barriers between noise sources and noise-sensitive land uses.
v. Stationary noise sources can and should be located as far from adjacent sensitive receptors as possible and they should be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the Lead Agency (or other appropriate government agency) to provide equivalent noise reduction.
w. Use techniques such as grade separation, buffer zones, landscaped berms, dense plantings, sound walls, reduced-noise paving materials, and traffic calming measures.
x. Locate transit-related passenger stations, central maintenance facilities, decentralized maintenance facilities, and electric substations away from sensitive receptors to the maximum extent feasible.
y. Consult the SCAG Environmental Justice Toolbox for potential measures to address impacts to low-income and/or minority communities.

PMM-NOISE-2: In accordance with provisions of sections 15091(a)(2) and 15126.4(a)(1)(B) of the State CEQA Guidelines, a Lead Agency for a project can and should consider mitigation measures to reduce substantial adverse effects related to violating air quality standards, as applicable and feasible. Such measures may include the following or other comparable measures identified by the Lead Agency:

a. 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.
b. 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.
c. 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.
d. Restrict construction activities to permitted hours in accordance with local jurisdiction regulation.
e. Properly maintain construction equipment and outfit construction equipment with the best available noise suppression devices (e.g., mufflers, silences, wraps).
f. Prohibit idling of construction equipment for extended periods of time in the vicinity of sensitive receptors.

SEE ATTACHMENT NO. 4
OF AGENDA ITEM REPORT

Attachment L

Architectural Plan Set

Attachment M

Cultural Resources Investigation

Cultural Resource Investigation in Support of the Triangle Centre Mixed Use Project, Los Angeles County, California

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Technical Report 19-432

December 6, 2019

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CULTURAL RESOURCE INVESTIGATION IN SUPPORT OF THE TRIANGLE CENTRE MIXED USE PROJECT, LOS ANGELES COUNTY, CALIFORNIA

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Technical Report No. 19-432

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MANAGEMENT SUMMARY

The proposed Triangle Centre Mixed Use Project (Project) would include construction of a mixed-use building on the corner of West Washington Boulevard, Zanja Street, and Meier Street. The proposed Project would consist of a seven-story building with residential units above a commercial space. PaleoWest Archaeology (PaleoWest) was contracted by Meridian Consultants to conduct a Phase I cultural resource assessment of the Project area in compliance with the California Environmental Quality Act (CEQA). The City of Culver City is the Lead Agency for the purposes of the CEQA.

This report summarizes the methods and results of the cultural resource investigation of the Project area. This investigation included background research, communication with the Native American Heritage Commission (NAHC) and interested Native American tribal groups, and an intensive pedestrian survey of the Project area. The purpose of the investigation was to determine the potential for the Project to impact historic resources under CEQA.

A series of cultural resource records searches and literature reviews were conducted on August 15 and November 7, 2019, at the South Central Coastal Information Center of the California Historical Resource Information System housed at California State University, Fullerton. The records searches indicated that no fewer than 35 previous studies have been conducted within one mile of the Project area. The records search also identified 7 cultural resources documented within one mile of the Project area; however, none of these resources were identified within or immediately adjacent to the Project area.

As part of the cultural resource assessment of the Project area, PaleoWest also requested a search of the Sacred Lands File (SLF) from the NAHC. Results of the SLF search indicate that there is a known Native American cultural resource(s) within the vicinity of the Project area. As such, the NAHC indicated the Gabrielino Tongva Indians of California Tribal Council should be contacted for more information regarding the positive results. Additionally, the NAHC recommended that four other Native American individuals and/or tribal groups be contacted to elicit information regarding cultural resource issues related to the proposed Project. Five individuals were contacted. One response was received as a result of the outreach efforts. The Gabrielino Tongva Indians of California Tribal Council indicated the Project area is sensitive for cultural resources and requested Native American monitoring for the Project as well as follow up contact from the lead agency.

PaleoWest conducted a site visit of the proposed Project area on November 14, 2019. An intensive pedestrian survey was not necessary due to the high degree of urban development; the entire Project area is hardscaped and contains a large parking lot and commercial building. No prehistoric or historic archaeological resources were identified during the survey. The commercial building on the property, 12753 W. Washington Boulevard, was built in 1958 and, as such, PaleoWest documented and evaluated the resource for eligibility for listing on the California Register Historical Resources (CRHR). The building is recommended not eligible for listing on the CRHR and is also not recommended as a City of Los Angeles Historic-Cultural Monument. Despite a negative finding for archaeological resources within the Project area, the general vicinity has been identified as sensitive for prehistoric archaeological resources. Because of the identified sensitivity, PaleoWest recommends cultural resource monitoring for all Project-related ground disturbance should excavations exceed 3 feet below ground surface.

1.0 INTRODUCTION

The proposed Triangle Centre Mixed Use Project (Project) would include construction of a mixed-use building on the corner of West Washington Boulevard, Zanja Street, and Meier Street. The proposed Project would consist of a seven-story building with residential units above a commercial space. PaleoWest Archaeology (PaleoWest) was contracted by Meridian Consultants to conduct a Phase I cultural resource assessment of the Project area in compliance with the California Environmental Quality Act (CEQA). The City of Culver City is the Lead Agency for the purposes of the CEQA.

1.1 PROJECT LOCATION AND DESCRIPTION

The proposed Project is located at 12717 West Washington Boulevard in Los Angeles County. The 1.23-acre site is partially located in the city of Culver City with the remainder of the site located in the city of Los Angeles. The proposed Project is west of the San Diego Freeway (Interstate 405 [I-405]) and north of the Marina Freeway (Highway 90) (Figure 1-1). The proposed Project is bounded by Zanja Street to the north; Washington Boulevard to the south and east; and Meier Street to the west. The Project area is situated within unsectioned areas of the Ballona Landgrant, Township 2 South, Range 15 West, San Bernardino Baseline and Meridian (SBBM), as depicted on the Venice, CA 7.5' U.S. Geological Survey (USGS) topographic quadrangle (Figure 1-2). The elevation of the Project area is approximately 34 feet above mean sea level (amsl).

The proposed Project would add a mixed-use building containing residential units above commercial space on the corner of West Washington Boulevard, Zanja Street, and Meier Street. The seven-story building would include approximately 19,075 square feet of commercial space fronting on West Washington Boulevard and Zanja Street with approximately 138 residential units. The site contains an existing commercial building located on western side of the site, the former 99 Cent Discount structure that was recently burned down located on the northeastern corner adjacent to West Washington Boulevard, and associated parking lots. The site is located south of multifamily residences across Zanja Street within the city of Los Angeles, and east of multifamily residences across Meier Street within Culver City. Parking is currently located within the city of Los Angeles portion of the site.

1.2 REPORT ORGANIZATION

This report documents the results of a cultural resource investigation conducted for the proposed Project. Chapter 1 has introduced the project location and description. Chapter 2 states the regulatory context that should be considered for the Project. Chapter 3 synthesizes the natural and cultural setting of the Project area and surrounding region. The results of the cultural resource literature and records search conducted at the South Central Coastal Information Center (SCCIC) and the Sacred Lands File (SLF) search, and a summary of the Native American communications is presented in Chapter 4. The field methods employed during this investigation and findings are outlined in Chapter 5 with management recommendation provided in Chapter 6. This is followed by bibliographic references and appendices.

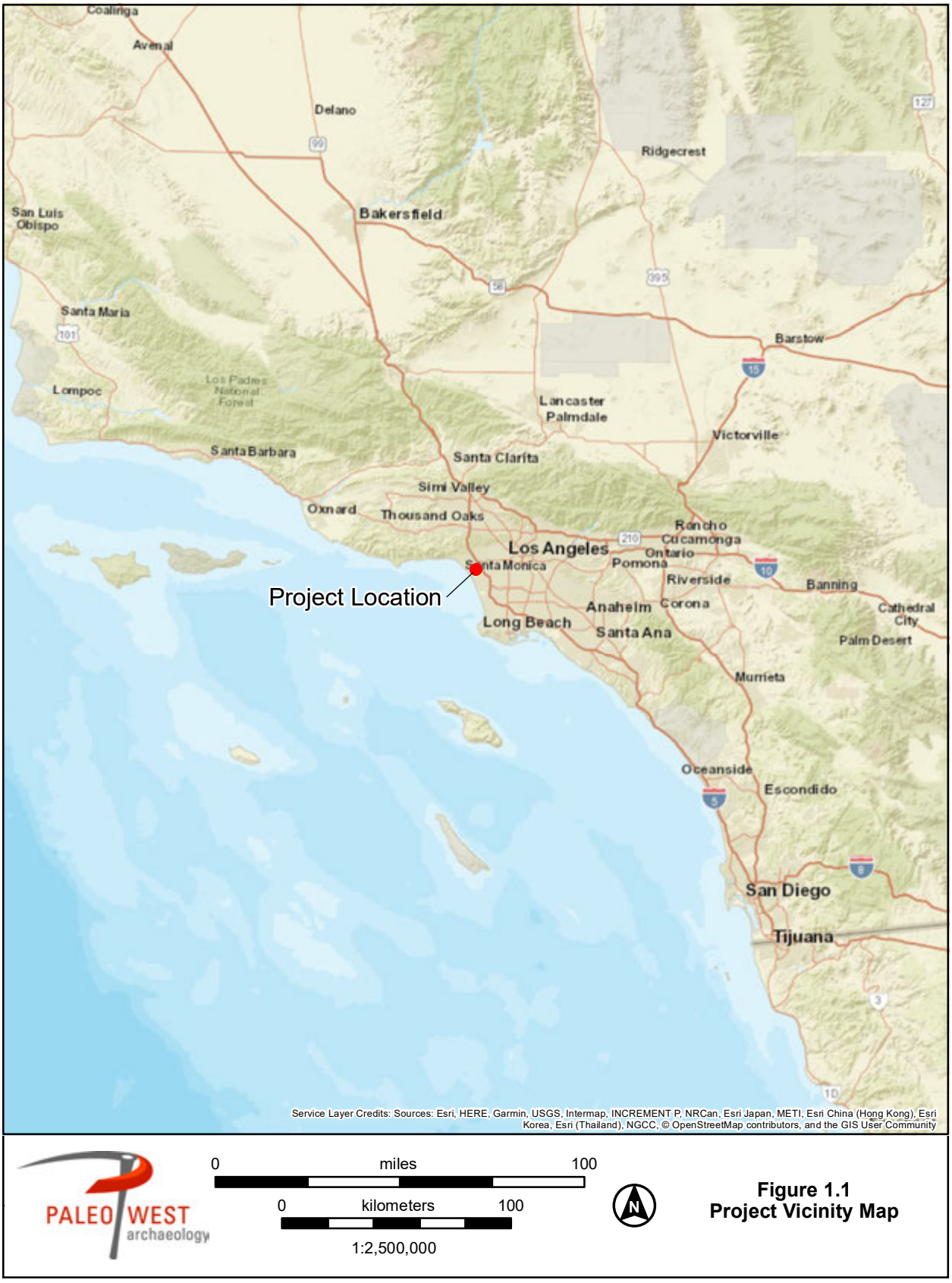

Figure 1-1 Project Vicinity Map

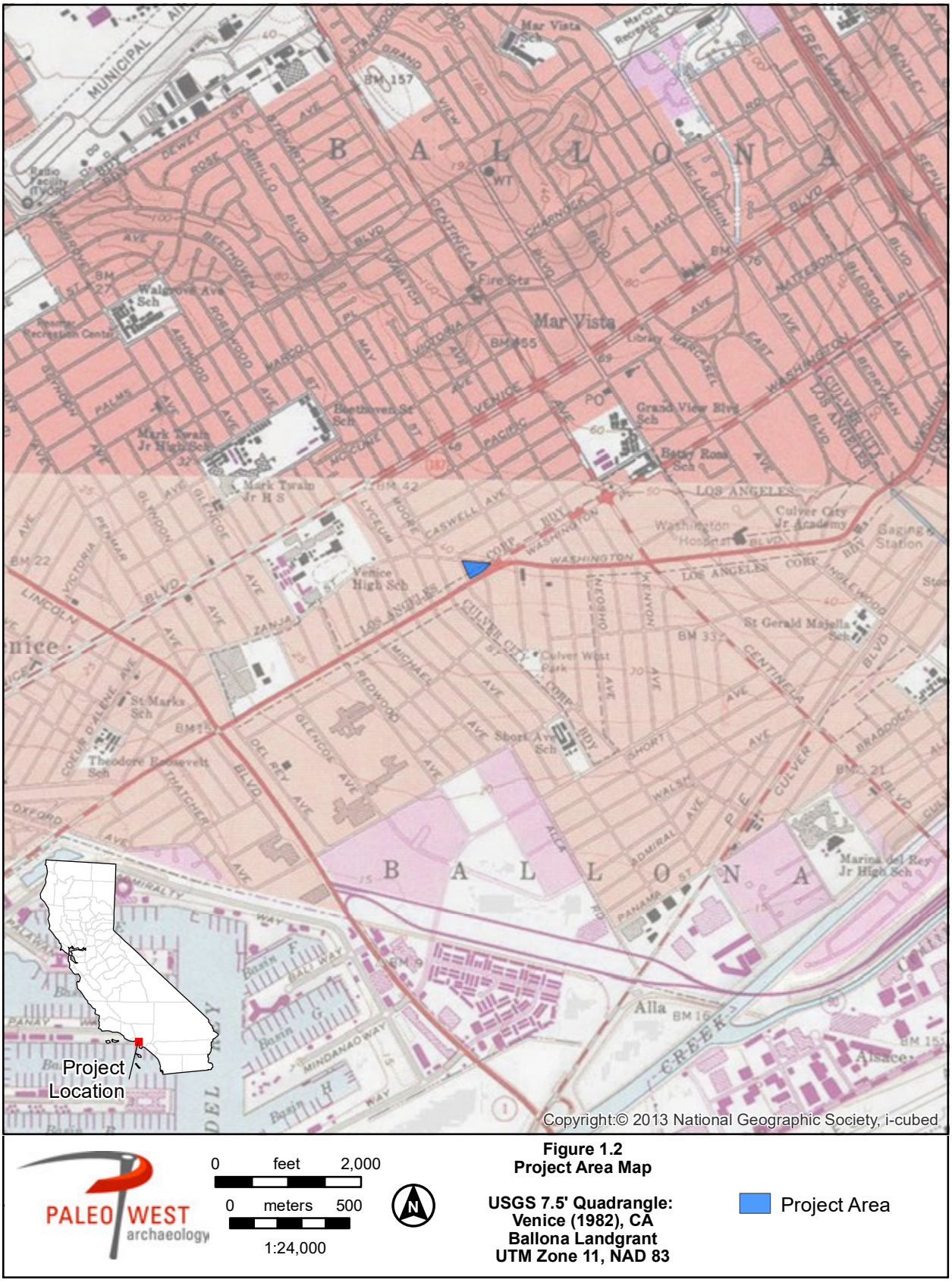

Figure 1-2 Project Location Map

2.0 REGULATORY CONTEXT

2.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The proposed Project is subject to compliance with CEQA, as amended. Compliance with CEQA statutes and guidelines requires both public and private projects with financing or approval from a public agency to assess the project's impact on cultural resources (Public Resources Code Section 21082, 21083.2 and 21084 and California Code of Regulations 10564.5). The first step in the process is to identify cultural resources that may be impacted by the project and then determine whether the resources are "historically significant" resources.

CEQA defines historically significant resources as "resources listed or eligible for listing in the California Register of Historical Resources (CRHR)" (Public Resources Code Section 5024.1). A cultural resource may be considered historically significant if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets any of the following criteria for listing on the CRHR:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history (Public Resources Code Section 5024.1).

Cultural resources are buildings, sites, humanly modified landscapes, traditional cultural properties, structures, or objects that may have historical, architectural, cultural, or scientific importance. CEQA states that if a project will have a significant impact on important cultural resources, deemed "historically significant," then project alternatives and mitigation measures must be considered. Additionally, any proposed project that may affect historically significant cultural resources must be submitted to the State Historic Preservation Officer (SHPO) for review and comment prior to project approval by the responsible agency and prior to construction.

2.2 CALIFORNIA ASSEMBLY BILL 52

Signed into law in September 2014, California Assembly Bill 52 (AB 52) created a new class of resources – tribal cultural resources – for consideration under CEQA. Tribal cultural resources may include sites, features, places, cultural landscapes, sacred places, or objects with cultural value to a California Native American tribe that are listed or determined to be eligible for listing in the CRHR, included in a local register of historical resources, or a resource determined by the lead CEQA agency, in its discretion and supported by substantial evidence, to be significant and eligible for listing on the CRHR. AB 52 requires that the lead CEQA agency consult with California Native American tribes that have requested consultation for projects that may affect tribal cultural resources. The lead CEQA agency shall begin consultation with participating Native American tribes prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Under AB 52, a project that has potential to cause a substantial adverse change to a tribal cultural resource constitutes a significant effect on the environment unless mitigation reduces such effects to a less than significant level.

2.3 CITY OF LOS ANGELES HISTORIC-CULTURAL MONUMENT

The City of Los Angeles Cultural Heritage Ordinance, enacted in 1962, has made possible the designation of buildings and sites as individual local landmarks, called Historic-Cultural Monuments. Historic-Cultural Monument designation is reserved for those resources that have a special aesthetic, architectural, or engineering interest or value of a historic nature. The Cultural Heritage Ordinance (Section 22.171.7) establishes criteria for designation. A proposed Monument may be designated by the City Council, upon the recommendation of the Commission, if it meets at least one of these criteria:

1. Is identified with important events in the main currents of national, state or local history, or exemplifies significant contributions to the broad cultural, political, economic or social history of the nation, state, city, or community; or

2. Is associated with the lives of historic personages important to national, state, city, or local history; or

3. 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 genius influenced his or her age; or possesses high artistic values; or

4. Has yielded, or has the potential to yield, information important to the pre-history or history of the nation, state, city or community.

3.0 SETTING

This section of the report summarizes information regarding the physical and cultural setting of the Project area, including the prehistoric, ethnographic, and historic contexts of the general area. Several factors, including topography, available water sources, and biological resources, affect the nature and distribution of prehistoric, ethnographic, and historic-period human activities in an area. This background provides a context for understanding the nature of the cultural resources that may be identified within the region.

3.1 ENVIRONMENTAL SETTING

The Project area is located at the southern edge of the Transverse Ranges geomorphic province, which includes the San Gabriel and San Bernardino mountains to the northeast, and the Santa Monica Mountains to the north. It is situated within what is known as the Los Angeles Basin. Geologically, the Los Angeles basin is a deep, sediment-filled structural depression with recent sedimentary deposits overlying older sedimentary rocks (i.e. sandstone). The Basin is a northwest-trending lowland plain at the northern end of the Peninsular Ranges Province of Southern California (Yerkes and Campbell 2005). The sediments comprising the depression include extensive accumulation of interstratified fluvial, alluvial, floodplain, shallow marine, and deep shelf deposits. Beneath the sedimentary rocks are older crystalline basement rocks, consisting of schists (shales that are altered by heat and pressure). Tectonic forces (those related to faults and earthquakes) beneath the earth uplifted, tilted, and folded the sedimentary rocks to what is visible today. The proposed Project area has surface deposits consisting of younger Quaternary alluvium derived from fluvial deposits form Ballona Creek that currently flows to the east and south.

This area contains a drainage basin, with Holocene sediments, that narrows to the south into the Dominguez Channel. Southwest of the Project, Pleistocene dune sand overlies older alluvial deposits. The main drainage courses within the area are the Dominguez Channel, Compton Creek, and Centinela Creek (Department of Conservation 1998). Prior to the development of the area the dominant plant community consist of coastal sage scrub, freshwater and salt marshes, and riparian woodlands. Common flora found within a coastal sage scrub community consist of California sagebrush (*Artemisia californica*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), California buckwheat (*Eriogonum fasciculatum*), coast brittle-bush (*Encelia californica*), golden yarrow (*Eriophyllum confertifolium*), and lemonade berry (*Rhus integrifolia*).

3.2 PREHISTORIC SETTING

The most widely used chronological sequence in the Project vicinity distinguishes Early, Middle, and Late periods. It was initially outlined by King (1981) and later revised to include additional radiocarbon dates (King 1990) and to incorporate refinements in our understanding of cultural developments (Arnold 1992).

3.2.1 Early Holocene (9600-5600 cal B.C.)

Archaeological data compiled over the last two decades indicate that initial settlement along the coast of Southern California began at least 12,000 years before present (B.P.). Some of the earliest evidence of human occupation specifically derives from Daisy Cave (CA-SMI-261) on San Miguel Island where radiocarbon samples date the oldest cultural layer at the site between 9600 and 9000 cal B.C. (Erlandson et al. 1996). In the Southern California coastal region, the discovery of fluted projectile points indicates

human use of the area possibly as early as possibly 13,000 years ago (Erlandson et al. 1996; Stickel 2010), while sites on San Miguel and Santa Rosa islands have yielded radiocarbon dates older than 10,000 years (Erlandson 1991; Johnson et al. 2001).

However, few known sites date to this earliest period (i.e., pre-10,000 years before present [B.P.]) and relatively few sites have been identified specifically within the Los Angeles Basin that date to the early Holocene. The earliest evidence of human occupation in the Los Angeles region is represented by a set of female human remains that were discovered in association with a handstone in the tar pits of Rancho La Brea in 1914 (Merriam 1914). Possible low population densities may explain the scarcity of sites dating to the early Holocene in the region, but the few known sites do suggest that they tend to be located on elevated landforms, and their presence on the Northern Channel Islands indicates early knowledge and use of marine resources. Diagnostic tools associated with this time period for coastal California have not been identified and cultural assemblages dating to this period have fewer of the grinding implements common to subsequent periods. Research suggests that inhabitants of this period lived in small groups that had a relatively egalitarian social organization and a forager-type land-use strategy (Erlandson 1994; Glassow 1996; Greenwood 1972; Moratto 1984).

3.2.2 Middle Holocene (5600–1650 cal B.C.)

Shortly after 9,000 years ago, sites in the coastal region begin to be characterized by an abundance in milling tools, and the broader subsistence regime, including utilization of plants and seeds, terrestrial animals, and shellfish (Glassow 1996; Glassow et al. 1988; Sutton and Gardner 2010). Increasing populations composed of small, dispersed groups with more generalized tool kits, and a mixed subsistence regime indicating a heavier reliance on shellfish than on fish and terrestrial food sources are also identifiers of the period (Erlandson 1991, 1994, 1997). Population densities appear to have decreased substantially between 6500 and 5000 B.P. throughout the region, and little is known about this period. It has been suggested that the arid conditions associated with the Altithermal (a mid-Holocene period of predominantly warm/dry climate) damaged the environment to the point that only low population densities were sustainable (Glassow 1996; Glassow and Wilcoxon 1988).

After 5000 B.P., population densities increased significantly as conditions became cooler and moister. Between 5000 and 3000 B.P., mortars and pestles became increasingly common throughout the region, suggesting intensified use of acorns (Basgall 1987), as well as the possibility of pulpy roots or tubers (Glassow 1997). Large side-notched and stemmed projectile points became more prevalent, presumably reflecting increased hunting.

Coastal and inland sites of this time period exhibit shallow midden accumulations, suggesting seasonal camping. Based on the distribution of sites assigned to this period, larger groups likely occupied a base camp during a portion of the year, while smaller groups of people used satellite camps to exploit seasonally available floral resources such as grass seeds, berries, tubers, and nuts (cf. Binford 1980; Warren 1968). Site assemblages in coastal Southern California dating to this time contain numerous manos and metates, charmstones, cogged stones, discoidals, and some stone balls. A significant technological change in ground stone is seen at this time with the appearance of mortars and pestles which suggests the adoption of acorn, nut, and seed processing by coastal groups (Sutton and Gardner 2010). The quantity of projectile points also increases during this time, indicating a subsistence shift toward greater reliance on large game. Burial practices also suggest that society was primarily egalitarian (Glassow 1996). Secondary burials among coastal communities continue to be the dominant mortuary regime with a smaller number of flexed inhumations during the Middle Holocene.

3.2.3 Late Holocene (1650 cal. B.C.–cal A.D. 1542)

Cultural complexity appears to have increased around 3000–2500 B.P. Mortuary data research suggests a substantial change in social organization and political complexity during this period (King 1990). According to King, high-status positions became hereditary and individuals began to accumulate wealth and control exchange systems. Arnold (1991, 1992) proposes that this evolutionary step in socioeconomic complexity occurred around 700–800 years ago. Technological innovation as well as a continued increase in cultural complexity marks the period between 2,500 and 800 years ago. Fishing and sea mammal hunting became increasingly important. This corresponds to the development of the *tomol* (plank canoe), single-piece shell fishhooks, and harpoons (Glassow 1996; King 1990). In addition, the bow and arrow was introduced during this period. Utilization of imported obsidian continued to increase during this period as well (Jones et al. 2007).

A number of these new cultural traits have been thought to be attributable to the arrival of Takic speaking people from the southern San Joaquin Valley in the coastal California region (Sutton 2009). Biological, archaeological, and linguistic data indicate that the Takic groups who settled in the Los Angeles Basin were ethnically distinct from the indigenous Hokan-speaking Topanga populations that had inhabited the region just north of the Project. These Takic speakers are believed to be ancestral to the ethnographic Gabrielino groups (Sutton 2009).

Due to the archaeological evidence gathered it is suggested that Hokan-speaking groups were largely replaced or subsumed by the Gabrielino and Chumash by 2000 B.P. (Sutton and Gardner 2010). Several new types of material cultural appear in the archaeological record during the 700 B.C.-1800 A.D. including the presence of Cottonwood series points, birdstone and “spike” effigies, *Olivella* cupped beads, and *Mytilus* shell disk beads. Additionally, the presence of Southwestern pottery, Patayan ceramic figurines, and Hohokam shell bracelets at some of these later sites suggests interaction between populations in Southern California and the Southwest. Additionally, potential changes in trade networks at this time may be evidenced by an increase in the number and size of steatite artifacts, including large vessels, elaborate effigies, and comals in the archaeological record.

3.3 ETHNOGRAPHIC SETTING

The prehistory of California’s coast spans the entire Holocene and may extend back to late Pleistocene times. At the time of contact however, the ethnographic record indicates that the Gabrielino populations inhabited what is now known as the Los Angeles Basin and the Project region. Traditionally, the Gabrielino occupied a large territory, including the entire Los Angeles Basin, the coast from Malibu to Aliso Creek, parts of the Santa Monica Mountains, the San Fernando Valley, the San Gabriel Valley, the San Bernardino Valley, the northern part of the Santa Ana Mountains, and much of the middle and lower Santa Ana River reaches. In addition, the Gabrielino also inhabited the islands of Santa Catalina, San Clemente, and San Nicolas. The Gabrielino language was a Cupan language which is part of the Takic language family and part of a larger language group called Uto-Aztecan (Harrington 1981, Kroeber 1925).

It is believed that more than 50 communities with populations that ranged from 50-150 individuals inhabited the traditional territory of the Gabrielino pre-contact. Each autonomous community or village consisted of one or more patrilineages that maintained permanent placement and the maintenance of surrounding hunting and gathering areas, and ceremonial sites as well. The chief, his family, and elite members were typically the epicenter of the village sites. The village members would encompass and surround the homes of the chief and elite with smaller houses/structures. Other common structures found

in Gabrielino villages included sweathouses, clearings for ceremonies and playing fields, as well as cemeteries or burial grounds (McCawley 1996:32-33). Management of food and resources was implemented by the chief and food stores were also kept for each family when supply was low.

The material culture of the Gabrielino is elaborate and has been compared to that of the Chumash. Sources including Padre Geronimo Boscana's accounts (Boscana 1846), Hugo Reid's 1852 letters to the *Los Angeles Star* (Reid and Heizer 1968), and Harrington's (Harrington 1981) early twentieth century interviews describe the common use of shell ornaments and beads, baskets, bone tools, flint weapons and drills, fishhooks, mortars and pestles, wooden bowls and paddles, shell spoons, wooden war clubs, and a variety of steatite items (cooking vessels, comals, ornaments) as many of artifact types common in descriptions of Gabrielino culture (Blackburn 1963). Additionally, artesian development has been observed in the artifact assemblage with the implementation of inlaid with shell (using asphalt) and in the steatite items from production centers on Catalina Island.

Trade was an important element of the Gabrielino economy. While the principal Gabrielino-produced commodity—steatite vessels from centers on Catalina Island—originated well outside the defined study region, trade in steatite items was conducted throughout local territory and involved external relations with desert, Southwestern, mountain, and coastal groups beyond Gabrielino borders (Kroeber 1925). Subsistence resources were also supplemented by additional supplies of deer skins, seeds, and acorns from interior groups such as the Serrano (Kroeber 1925:629). Additionally, *Olivella* shell callus beads, manufactured on the northern Channel Islands by the Chumash and their predecessors, were reportedly used quite frequently as a currency or as a status symbol by the Gabrielino and other Southern California groups.

As described in ethnographic sources, the subsistence resource base for the Gabrielino people included native grass seeds, six or more types of acorns, pinyon pine nuts, seeds and berries from various shrubs, fresh greens and shoots, mule deer, pronghorn, mountain sheep, rabbits and rodents, quail and waterfowl, snakes, lizards, insects, and freshwater fish, plus a wide variety of marine fish, shellfish, and sea mammals in coastal zones. Resource exploitation techniques were also described in ethnographic accounts and include rabbit drives in conjunction with seasonal controlled burning of chaparral, and the use of throwing sticks or nets in the capture of waterfowl in the low-lying marshlands. Reed rafts may have been employed for marshland hunting (Priestley 1937).

The first contact between the Europeans and the Gabrielino is thought to have occurred in 1542 when Juan Rodriguez Cabrillo's small fleet arrived at Santa Catalina Island when the Spanish exploration of North America began in the early 1500s, and Juan Rodriguez Cabrillo began exploring the Alta California coastline in 1542. Additionally, contact with the Gabrieleno by the Spanish likely occurred again in 1602 with the Sebastían Vizcaíno expedition (McCawley 1996:207) and in 1769 with the Gaspar de Portolá expedition.

Mission San Gabriel was founded on September 8, 1771, but moved to its present location around 1774, due to the second location consisting of more suitable land for agriculture. A second mission, San Fernando, was established within Gabrielino territory in 1797. The assimilation of the Gabrielino people in to the mission system had gross negative affect on the traditional Gabrielino communities as they were depopulated, had become estranged from many of their traditional cultural practices, their lands, political autonomy, and had even become enslaved and even killed, and suffered from epidemics caused by the introduction of European diseases further reduced the indigenous population. Between 1832 and 1834, as the primary result of secularization of the former mission lands, which was theoretically designed to turn over ownership of some of the lands back to the Native peoples of California, consequently increased the

displacement of the Gabrielino (McCawley 1996:208). The establishment of California as a state in 1850 brought further hardships to the Gabrielino, forcing many to eventually settle into smaller groups of Native American and Mexican settlements in places like the Eagle Rock and Highland Park districts of Los Angeles as well as in Pauma, Pala, Temecula, Pechanga, and San Jacinto.

3.4 HISTORICAL SETTING

This section of the report summarizes information regarding the historic context of the Project area. Overarching historic themes were identified to establish a historic context within which to evaluate historic-period period properties within the Project area.

3.4.1 City of Los Angeles

The area comprising present-day Los Angeles County was first settled by small groups of Native Americans for centuries before the first European contact. The first European record of the Los Angeles area was a 1542 notation in a ship's log, in which Portuguese navigator Juan Rodriguez Cabrillo described a bay that he called *Bahia de Los Fumos* (Bay of the Smokes), named for the smoke seen rising from Tongva campfires on shore. In 1603, another Spanish explorer, Sebastian Vizcaino, called the inlet San Pedro, in honor of St. Peter (City of Los Angeles Cultural Affairs Department 2000). In 1769 Gaspar de Portola and a group of missionaries camped on what is now the banks of the Los Angeles River marking the beginning of Spanish occupation of the region (County of Los Angeles 2018).

In September 1771, Father Junipero Serra and a group of Spaniards founded two missions in the Los Angeles area, the San Gabriel Mission as the fourth mission established in California and San Fernando Rey de Espana Mission, founded in 1797 as the seventeenth mission (City of Los Angeles Cultural Affairs Department 2000). Ten years after the establishment of the San Gabriel Mission, the Pobladores, a group of 11 families recruited from Mexico by Capt. Rivera y Moncada, traveled from the San Gabriel Mission to a spot selected by Alta California Gov. Felipe de Neve to establish a new pueblo. The settlement was named El Pueblo de la Reyna de Los Angeles (The Pueblo of the Queen of the Angels). In its early years, the town was a small, isolated cluster of adobe-brick houses and random streets carved out of the desert, and its main product was grain. Over time, the area became known as the Ciudad de Los Angeles, "City of Angels" (County of Los Angeles 2018).

Following the establishment of the presidio, the mission, and the pueblo, another Spanish institution took hold in California: the rancho. The Governor of the Californias awarded land grants to retired soldiers and loyalists to the Spanish crown (City of Los Angeles Cultural Affairs Department 2000). Under Spain, the Los Angeles area came to have a dozen ranchos. For 40 years, from 1781 to 1821, Los Angeles was a Spanish pueblo. By the close of the Spanish Period, there were 12 more ranchos granted and occupied in Los Angeles County, comprising 15 of the 25 ranchos in the entire province (Caughey and Caughey 1977).

In 1821, Mexico won its independence from Spain, bringing the Pueblo of Los Angeles and the rest of Spanish California under Mexican governance. The newly-formed Mexican government sponsored the formation of pueblos, awarded large tracts of land to those integral to its independence movement, and secularized the old Spanish missions, opening the former mission lands up to public settlement. Under Spain, the Los Angeles area came to have a dozen ranchos; under Mexico, about two hundred. The Mexican Period was marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada Mountains (Caughey and Caughey 1977).

During the 1830s and 1840s, disputes between Mexico and the neighboring United States over land rights became increasingly contentious, eventually resulting in the Mexican American War in 1846. During the war, on August 13, 1846, Captain John Fremont entered the Pueblo of Los Angeles and declared it an American territory. The Treaty of Cahuenga ended the conflict in California in 1847. The subsequent Treaty of Guadalupe Hidalgo, signed in 1848, brought an end to the war and transferred the lands of Alta California to the United States (City of Los Angeles Cultural Affairs Department 2000).

In 1850, only two years after California became a United States territory, it was admitted as the 31st state, largely due to the discovery of gold in 1848 at Sutter's Mill. Following this discovery, California was transformed from what had been called a "backwoods frontier of Mexico," to the new Anglo-American "Golden State." Los Angeles became one of California's original 27 counties, created by the state's first legislature on February 18, 1850. The County encompassed 4,340 square miles, and originally contained all of San Bernardino County, a large portion of Kern County, and all of Orange County. During the 1850s and 1860s, Los Angeles County went through several boundary changes: in 1853, an act created Kern County from territory that was previously part of Tulare and Los Angeles Counties; and in 1889, a similar act created Orange County from Los Angeles County lands to the southeast of Coyote Creek (URS Corporation 2012).

The City of Los Angeles was incorporated in 1850 with a population of just over 1600. From 1850 to 1870, Los Angeles remained an isolated, rough-and-tumble frontier town. Economic life in those years continued to be shaped by the agriculture of the ranchos. A drought in 1862 destroyed many cattle, undermining the economic base as well as the personal security of the rancheros. The Gold Rush created a period of great prosperity. Cattle from Los Angeles, formerly prized only for their hides and tallow, suddenly were seen as a food source, and fortunes were made shipping meat to the miners. With the gradual introduction of a cash economy replacing the barter economy of the Mexican era, the rancheros were forced to mortgage their land to obtain money. By 1865, four-fifths of the ranchos were in American hands, and Los Angeles grew slowly over the next two decades (City of Los Angeles Cultural Affairs Department 2000).

In 1886, the Santa Fe Railroad completed its Los Angeles link of the transcontinental railroad, breaking the Southern Pacific monopoly. In the ensuing rate war, the price of a St. Louis to Los Angeles ticket dropped at one point to one dollar. The irresistible fare, huge tracts of available land, outrageous publicity, and hordes of Midwesterners eager to retire from snowy winters, combined to create a huge influx of tourists and new residents. The Santa Fe Company became a major town founder and land developer. By 1889 the boom subsided, but "Los Angeles" had become a household name (City of Los Angeles Cultural Affairs Department 2000).

Between 1890 to 1900, major improvements were made in the city's infrastructure. A public transportation system was created, water supplies were enlarged, oil was discovered, and the harbor was improved further attracting people to settle in the region. Smaller communities outside of the original land grant were annexed to the City of Los Angeles, initiating a pattern that would ultimately increase the City's area by 200% (City of Los Angeles Cultural Affairs Department 2000).

By 1912, the film industry became established in Los Angeles. Many eastern companies had either moved to or established branches in Los Angeles. As Europe plunged into World War I, that continent's film production slowed. Audiences in the United States and abroad looked increasingly to Hollywood for entertainment. The movie industry took root in Los Angeles and flourished in the mild climate (City of Los Angeles Cultural Affairs Department 2000).

During the Depression, unemployed workers flocked to Los Angeles looking for economic and social opportunity. Airplanes, clothing, and tires joined oil, movies, and citriculture were the major economic sectors driving the economy of Los Angeles. A new spurt of population growth and industrial expansion during World War II continued into the 1950s. The aerospace industry continued to expand until the end of the Cold War in the 1970s and 1980s. During the 1990s recession slowed economic growth in the City at the beginning of the decade. Civil disturbances in 1992 destroyed many buildings and structures in urban neighborhoods throughout the City. The 1994 Northridge Earthquake was yet another blow to the economy, causing considerable damage to historic structures and buildings throughout the region. While the rest of the nation recovered economically in the mid-1990s, Los Angeles' economy took two additional years to recover (City of Los Angeles Cultural Affairs Department 2000).

3.4.2 Culver City Area

While located within the City of Los Angeles, the Project area is also located in close proximity to the neighborhood of Culver City West.

José Manuel Machado and his wife, Maria, traveled from Sinaloa, Mexico on the Rivera expedition of 1781. Machado continued to serve as a soldier in different locations until he retired to the pueblo of Los Angeles in 1797. Jose Machado's death in 1810 forced the sons to provide for the family's future. Agustín and his brother Ygnacio Machado, after unsuccessful attempts to acquire land near the pueblo, decided to settle in the area that became Culver City and raise cattle on Rancho La Ballona which they established in 1819 with two partners, Felipe Talamantes and his son Tomás. After California entered the Union, Culver City was formed from portions of the 14,000 acre Rancho La Ballona and Rincón de Los Bueyes land grants (Culver City 2019).

Harry H. Culver started plans for Culver City in 1913, and the city was incorporated in 1917. He chose the site for a number of factors including the temperature, its location along transportation routes and railroad tracks, and for being halfway between the growing pueblo of Los Angeles and Abbot Kinney's resort of Venice. In the early days of the city, the trustees concentrated on the actions necessary to form the city. City tracts and streets were named and paved, a numbering system was adopted, and employees hired to take care of the business of the city. The Fire and Police Departments were established. Film studios began to establish in the area becoming the early economic drive in the area. Industry came in the form of Western Stove in 1922, Helms Bakeries in 1930, and Hayden Industrial Tract was established in the 1940s. Like most of the country, the advent of World War II stalled development, but the area saw a period of growth in the post-war years (Culver City 2019).

Over the years, more than forty annexations increased city size to about five square miles. Culver City transitioned from a general law city to a charter city in 1947. In addition to city government, schools became a part of the community, and by 1949, Culver City had its own Unified School District, meaning that education was available through secondary school. By 1971, the City Council became aware of the need for redevelopment, and formed the Culver City Redevelopment Agency. The first major project accomplished under the Agency was the Fox Hills Mall, which opened in 1975. Redevelopment is ongoing. By the year 2000, the city had quadrupled in size and became a community of nearly 40,000 residents (Culver City 2019).

3.4.3 12753 W. Washington Boulevard

The building located at 12753 W. Washington Boulevard was constructed in 1958. The building was constructed during a period of transition in the surrounding area. Prior to 1958 the surrounding area las

largely residential with some commercial buildings along Washington Boulevard. By 1958 many residences had been replaced with commercial buildings (NETR 2019). Research yielded little information regarding the previous occupants of the commercial building, however; in 1985 Triangle Vacuum and Sewing Center was listed at the address (Los Angeles Times 1985).

4.0 CULTURAL RESOURCES INVENTORY

Two literature reviews and records searches were conducted at the SCCIC, housed at California State University, Fullerton, on August 15 and November 7, 2019. Collectively, this inventory effort included the Project area and a one-mile radius around the Project area, collectively termed the Project study area. The objective of the records searches was to identify prehistoric or historical cultural resources that have been previously recorded within the study area during prior cultural resource investigations.

4.1 PREVIOUS CULTURAL RESOURCE INVESTIGATIONS

The records search results indicate that no less than 35 previous investigations have been conducted and documented within the Project study area since 1974 (Table 4-1). None of these studies appear to include the Project area. As a result, none of the Project area has been previously investigated by these studies.

Table 4-1
Previous Cultural Studies within the Study Area

Report No.	Date	Author(s)	Title
LA-00069	1974	Rosen, Martin D.	Evaluation of the Archaeological Resources in Playa Del Rey Area, Leighton and Associates
LA-00253	1988	Dillon, Brian D.	Report on Preliminary Archaeological Investigations at CA-LAN-47, the Admiralty Site, Marina Del Rey, California.
LA-00462	1979	Hector, Susan M.	An Archaeological Resource Survey an Impact Assessment of Tract No. 25635, Los Angeles County
LA-01975	1989	Neuenschwander, Neal J.	Cultural Resource Survey and Clearance Report for the Proposed American Telephone and Telegraph Los Angeles Airport Central Office to the Santa Monica Central Office Fiberoptic Communication Route
LA-02372	1991	Homburg, Jeffrey A.	Late Prehistoric Change in the Ballona Wetland.
LA-02558	1990	Altschul, Jeffery	Gateway Project
LA-02669	1978	Gervais, Richard	Draft Background and Environmental Impact Report Venice District
LA-02673	1992	Altschul, Jeffery H., et. al.	Life in Ballona: Archaeological Investigations at the Admiralty Site (CA-LAN-47) and the Channel Gateway Site (CA-LAN-1596\h)
LA-03495	1969	Levine, Harvey S.	A Review of Indian Burial Findings at Marina Del Rey
LA-03506	1963	Sweet, R. K.	Ucas-1963-x2 Venice Boulevard, Route 163, Los Angeles County
LA-03583	1974	Bucknam, Bonnie M.	The Los Angeles Basin and Vicinity: a Gazetteer and Compilation of Archaeological Site Information
LA-03592	1997	Wlodarski, Robert J.	Phase I Archaeological Study for the Marina View Apartments 3300 and 3324 Thatcher Ave. Marina Del Rey, City of Los Angeles
LA-03665	1996	Dillon, Brian D.	Archaeological Impact Assessment of the Price-costco Plaza Project 18.4 Acres in Culver City, Los Angeles County, California
LA-03898		Anonymous	Proposal for Archaeological Investigations in the Area of Hammock Street and Port Drive (vii-l.a.-90,405; Lincoln Blvd. to Slauson Avenue)

Table 4-1
Previous Cultural Studies within the Study Area

Report No.	Date	Author(s)	Title
LA-03911		Unknown	Historical Property Survey Centinela Avenue From Washington Boulevard to Short Avenue - W.o. 61779
LA-03929	1998	Wlodarski, Robert J.	Archaeological Monitoring Report, Marina View Apartment Project, 3300 and 3324 Thetcher Avenue, Marina Del Rey, City of Los Angeles, California
LA-04053	1998	Turner, Robin D.	Archaeological Monitoring of the Median Bike Path and Walkway Improvements Along Culver Boulevard and Mcconnell Avenue, Los Angeles, California
LA-04664	1999	Hale, Alice E.	Archaeological Monitoring the Costco Plaza Project Culver City, California
LA-05366	2001	Romani, Gwendolyn R.	Negative Archaeological Survey Report: 26000 Seaboard Drive, Malibu Los Angeles County, California APN #'s 4450-002-900, 4450-022-054, and 4450-022-050
LA-06241	2002	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. La 907-08 Los Angeles County, California
LA-06244	2002	Duke, Curt	Cultural Resource Assessment at & T Wireless Services Facility No. D092.2 Los Angeles County, California
LA-06247	2002	McKenna, Jeanette A.	Cultural Resources Venice High School Site 13000 Venice Blvd. in the City of Los Angeles.
LA-06492	2001	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. La 907-07 Los Angeles County, California
LA-06504	2000	Duke, Curt	Cultural Resource Assessment for Pacific Bell Wireless Facility La 907-01, County of Los Angeles, California
LA-06520	2001	Billat, Lorna	Nextel Communications Proposed Wireless Telecommunications Service Facilities-southern California
LA-07184	2000	Sylvia, Barbara	Highway Project for Pavement Re-striping and Signal Relocation Along Pacific Coast Highway (route1) at Location1, From Crenshaw Boulevard to Aero Way, and Pavement Re-striping Only at Location 2, From Maxella Avenue to Washington Boulevard
LA-07932	2006	Boxt, Matthew A.	A Phase-1 Archaeological Study for the Culver West Alexander Park Improvement Project, 4162 Wade Street, Culver City, California
LA-08157	2007	Foster, John M.	Archaeological Investigation for Thatcher Yard Demolition Project (work Order E1905949) 3233 and 3311 South Thatcher Avenue, City of Los Angeles, California
LA-09342	2008	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11374E (Palms-Redwood ROW), 13239 Palms Boulevard, Los Angeles, Los Angeles County, California
LA-09696	2007	Ciolek-Torrello, Richard, et. al.	Mitigation Plan for CA-LAN-47, Marina Del Rey, California; Statistical Research, Inc Technical Report 07-05.
LA-10880	2007	Trinh, Phoung	Tahiti Marina application for Department of the Army authorization
LA-11819	2006	Hirsch, Jennifer	Historical resources Evaluation Report for the SR 90 Realignment and Admiralty Way Improvements Projects Marina Del Rey, California
LA-12034	2012	Bonner, Wayne	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate LA13070D (ROW-MACRO JPA 260219M), 12679 Palms Boulevard, Los Angeles, Los Angeles County, California

Table 4-1
Previous Cultural Studies within the Study Area

Report No.	Date	Author(s)	Title
LA-12500	2013	Vader, Michael	Final Archaeological Resources Monitoring Report for the Los Angeles Department of Water and Power Scattergood-Olympic Transmission Line Project, Vault Investigations, Los Angeles County, California
LA-12863	2016	McKenna, Jeanette A.	A Cultural Resources Investigation of the Proposed Ocean Charter Schools Site, 12870 Panama St., in the Marina Del Rey Area of Los Angeles, Los Angeles County, California

4.2 CULTURAL RESOURCES REPORTED WITHIN THE STUDY AREA

The records search indicated that two prehistoric archaeological sites, one historical archaeological site, and four built-environment resources have been recorded within one mile of Project area. None of these resources are located within or immediately adjacent to the Project area. These resources are described in the table below.

Table 4-2
Cultural Resources Recorded within 1-Mile of the Project APE

Primary No.	Trinomial	Type	Age	Description
P-19-000047	CA-LAN-000047	Site	Prehistoric	Sa' anga; shell midden site with lithic scatter, potential burials, and habitation debris
P-19-000356	CA-LAN-000356	Site	Prehistoric	Shell midden site with possible burial
P-19-001596	CA-LAN-001596H	Site	Historic	Structural remains and refuse scatter
P-19-186163		Built	Historic	4601 Lincoln Blvd; commercial building
P-19-186165		Built	Historic	4560 Admiralty Way; commercial building
P-19-190244		Built	Historic	Utility pole
P-19-192300		Built	Historic	Teledyne Microelectronics; Woodbury R W Sprague Products Co.; commercial building

4.3 ADDITIONAL SOURCES

Additional sources consulted during the cultural resource literature review and records search include the National Register of Historic Places, the Office of Historic Preservation Archaeological Determinations of Eligibility, and the Office of Historic Preservation Directory of Properties in the Historic Property Data File. There are no listed archaeological resources recorded within the Project area or within one mile of the Project area. It should be noted, the Project area is in relatively close proximity to the Ballona Creek wetlands which is an area that is highly sensitive for archaeological resources. The two prehistoric archaeological sites (P-19-000047 and P-19-000356) identified within one mile of the Project area both contain possible burials as do sites closer to Ballona Creek. The general area is considered highly sensitive for cultural resources despite the disturbed nature of the current environment.

Historical maps consulted include Southern California Sheet 1, CA (1904) 60-minute, Redondo, CA (1898) 15-minute, and Venice (1924, 1934, 1950, and 1964) 7.5-minute USGS quadrangles. The 1924 and 1934 Venice quadrangles depict at least one structure within the Project area; however, by 1950 there are no structures depicted within the Project area.

4.4 NATIVE AMERICAN COORDINATION

PaleoWest contacted the NAHC, as part of the cultural resource assessment, on August 13, 2019, for a review of the SLF. The objective of the SLF search was to determine if the NAHC had any knowledge of Native American cultural resources (e.g., traditional use or gathering area, place of religious or sacred activity, etc.) within the immediate vicinity of the Project area. The NAHC responded on September 5, 2019, stating that the SLF was completed with positive results (Appendix A). As such, the NAHC indicated that the Gabrielino Tongva Indians of California Tribal Council should be contacted for more information regarding the positive results. Additionally, the NAHC recommended that four other Native American individuals and/or tribal groups be contacted to elicit information regarding cultural resource issues related to the proposed Project. PaleoWest sent outreach letters to all five of the recommended tribal groups on November 15, 2019 after conducting a site visit of the Project area on November 14, 2019. These letters were followed up by phone calls on December 6, 2019. A copy of the Sacred Lands File search results along with a sample outreach letter are provided in Appendix A.

To date one response has been received from the five contacted individuals/tribal groups. Mr. Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council stated that he is very familiar with the area and indicated it is very sensitive for prehistoric archaeological and Native American resources. Mr. Dorame recommends that a Native American monitor from his tribal group be present during Project-related ground disturbance. Mr. Dorame indicated that his family has lived in that area for many generations and he can provide more specific information to the lead agency because of his familiarity with the area. He requested follow up contact from the lead agency regarding this Project. Mr. Dorame was informed that the City of Culver City (City) would be conducting Assembly Bill 52 consultation efforts at a later date and, at that time, the City would be contacting him directly to obtain his comments. No other responses had been received prior to the date of this report.

5.0 FIELD INVESTIGATION

5.1 FIELD METHODS

A site visit of the Project area was conducted by PaleoWest Senior Archaeologist Roberta Thomas on November 14, 2019. The purpose of the site visit was to observe and note the conditions of the Project area including the extent of the hardscape, the overall degree of ground disturbance, and the character and nature of the Project area.

During the field survey, the exteriors of the building(s) within the Project area were analyzed, photographed, and recorded. Any building or structure determined to have been built prior to 1974 or to be potentially eligible for the CRHR were formally evaluated on DPR 523 series forms, which are included in Appendix B.

5.2 FIELD RESULTS

The entire Project area is hardscaped and includes a commercial structure and large parking lot as well as a vacant paved lot where a commercial building once stood. The Project area was recorded with digital photographs for use in the report. Photographs included general views of the area hardscaping, structures, and other relevant images.

No historical or prehistoric archaeological resources were observed within the Project area during the site visit; however, the extant commercial building at 12753 W. Washington Boulevard was documented and evaluated as it was constructed in 1958.

Figure 5-1 Overview of Project area from across Washington Blvd, view to the north

5.3 12753 W. WASHINGTON BOULEVARD

17753 W. Washington Boulevard is a one-story Modern-style commercial building constructed in 1958. The building is of concrete construction, has a rectangular plan, and a flat roof with a short parapet on the north and south elevations. The east elevation features non-historic commercial glass doors and windows. A boxed patio cover extends over the elevation. The south elevation features concrete block and no fenestration. The north elevation is concrete tilt-up with stucco siding and no fenestration. The west elevation features stucco siding, an entrance door and windows with security bars.

Figure 5-2 12753 W. Washington Boulevard, east elevation, facing northwest

5.3.1 California Register of Historical Resources Evaluation

The following presents an assessment of the historical significance of 12753 W. Washington Boulevard by applying the procedure and criteria for the CRHR. The purpose of this assessment is to evaluate the eligibility of the resource for listing on the CRHR.

CRHR Criterion 1: 12753 W. Washington Boulevard does not meet CRHR Criterion 1 for association with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. The building is one of many commercial buildings constructed throughout Los Angeles, California, and the United States during the mid-twentieth century. Research has yielded no information to suggest that any significant events associated with the history of Los Angeles, California, or the United States are specifically associated with this building. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 1.

CRHR Criterion 2: 12753 W. Washington Boulevard does not meet CRHR Criterion 2 for any direct associations with the productive lives of persons important in local, state, or national history. The building has been used by a number of businesses, however; research has yielded no information to

suggest that other persons of potential historical significance are specifically associated with this building. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 2.

CRHR Criterion 3: 12753 W. Washington Boulevard does not to meet CRHR Criterion 3 for embodying the distinctive characteristics of a type, period, and method of construction, or as the work of an important creative individual, or as having high artistic value. The building is an unremarkable and common example of a Modern-style commercial building. It is one of many commercial buildings constructed throughout Los Angeles and California in this style during the mid-twentieth century. While the architect and builder of the building were not identified, it is unlikely that the building represents the work of a master. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 3.

CRHR Criterion 4: 12753 W. Washington Boulevard does not meet CRHR Criterion 4 since it is unlikely to yield information important to prehistory or history. It is unlikely that this property has the potential to broaden our understanding of mid-twentieth century building construction, or the history of Los Angeles. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 4.

As a result of the evaluation, PaleoWest does not find that 12753 W. Washington Boulevard meets any of the CRHR criteria and, therefore, does not recommend it eligible for listing on the CRHR.

5.3.2 City of Los Angeles Historic-Cultural Monument

12753 W. Washington Boulevard is recommended not eligible as a City of Los Angeles Historic-Cultural Monument following the reasons outlined in the preceding section regarding eligibility under the comparable CRHR criteria.

6.0 MANAGEMENT RECOMMENDATIONS

The cultural resource records search and field visit resulted in identifying one built-environment resource, 12753 W. Washington Boulevard, within the Project area. No prehistoric or historical archaeological resources were identified; however, there was no ground visibility due to the development within the Project area. The built nature of the Project area indicates a high degree of disturbance suggesting the likelihood of encountering intact archaeological deposits near the surface of the Project area to be very low. Despite the level of disturbance, the general area is considered sensitive for cultural resources because of its close proximity to the Ballona Creek wetlands. The Gabrielino Tongva Indians of California Tribal Council indicated a high sensitivity for cultural resources in the Project and requested Native American monitoring be conducted for the proposed Project. Additionally, the Gabrielino Tongva Indians of California Tribal Council requested follow up contact from the lead agency regarding the Project. Due to the identified sensitivity of the general area, PaleoWest recommends cultural resource monitoring for all Project-related ground disturbance should excavations exceed 3 feet below ground surface.

In the event that potentially significant archaeological materials are encountered during Project-related ground-disturbing activities, all work should be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery and assess the significance of the archaeological resource. In addition, Health and Safety Code 7050.5, CEQA 15064.5(e), and Public Resources Code 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Finally, should additional actions be proposed outside the currently defined Project area that have the potential for additional subsurface disturbance, further cultural resource management may be required.

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Appendix A.
Native American Coordination

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

September 5, 2019

Robbie Thomas
PaleoWest Archaeology

VIA Email to: rthomas@paleowest.com

RE: Washington Blvd Records Search Project, Los Angeles County

Dear Ms. Thomas:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Gabrielino Tongva Indians of California Tribal Council on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
9/5/2019

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Washington Blvd Records Search Project, Los Angeles County.

PALEOWEST archaeology
626.408.8006 | paleowest.com | 517 South Ivy Avenue | Monrovia, CA 91016

November 15, 2019

Charles Alvarez
Gabrielino-Tongva Tribe
23454 Vanowen Street
West Hills, CA, 91307
Transmitted via email to roadkingcharles@aol.com

Re: Cultural Resource Investigation for the Triangle Centre Mixed Use Project in Culver City, Los Angeles County, California

Dear Mr. Alvarez,

On behalf of Meridian Consultants, LLC, PaleoWest Archaeology (PaleoWest) is conducting a cultural resource investigation in compliance with the California Environmental Quality Act for the Triangle Centre Mixed Use Project in Culver City, Los Angeles County, California. The Project would add a mixed-use building containing residential units above a commercial space to the Project property. The Project area is located on the Venice, Calif. 7.5' USGS quadrangle map, within an unsectioned area of the Ballona landgrant in T2S/R15W (see attached map).

A cultural resource literature review and records search conducted at the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton, indicates that no less than 36 cultural resource studies have been conducted within a one-mile radius of the Project area; none of these studies appear to intersect the Project area. The records search indicated that three prehistoric sites, three historical sites, and one multi-component site have been identified within a one-mile radius of the Project area. Additionally, eight historic built-environment resources were identified within a one-mile radius. PaleoWest conducted a survey of the Project area and did not identify any archaeological resources during the survey. The entire Project area has been hardscaped and developed.

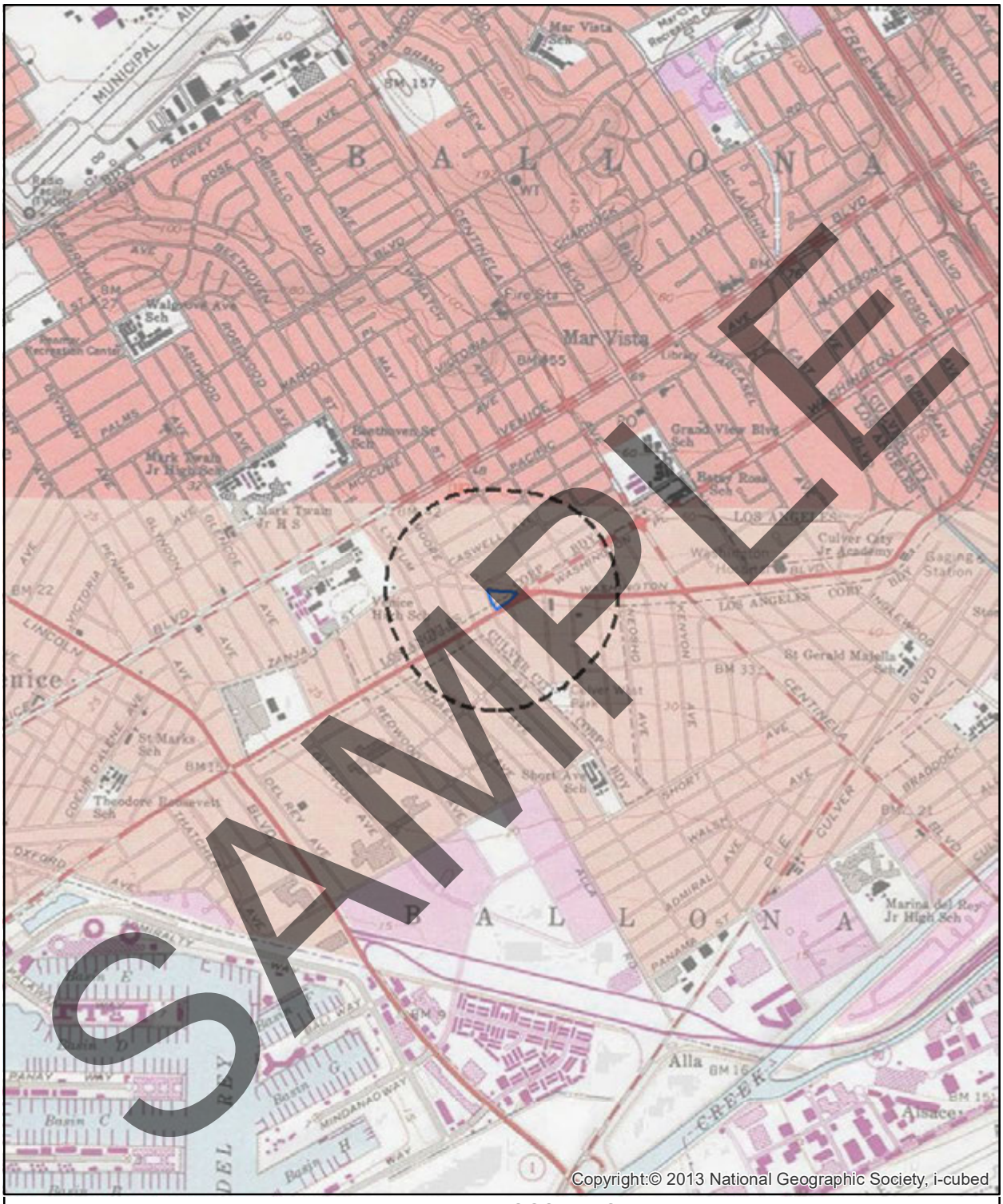
As part of the cultural resource investigation of the Project area, PaleoWest requested a search of the Native American Heritage Commission's (NAHC's) *Sacred Lands File* on August 13, 2019. The NAHC responded on September 5, 2019 indicating that the results of the file search for the Project area were positive. The NAHC indicated that the Gabrielino Tongva Indians of California Tribal Council should be contacted for more information. The NAHC also provided a contact list of additional tribal representatives that may have information about the Project area. Should your records show that cultural properties exist within or near the Project area (see enclosed map), please contact me at (626) 408-8006 or rthomas@paleowest.com. I will follow-up in two weeks with a phone call or email if I do not hear from you.

Your comments are very important to us, and to the successful completion of this Project. I look forward to hearing from you in the near future. Thank you, in advance, for taking the time to review this request.

Respectfully yours,

Roberta Thomas, M.A., RPA
Senior Archaeologist
PaleoWest Archaeology

SAMPLE



PALEO WEST archaeology

0 feet 2,000

0 meters 500

1:24,000

USGS 7.5' Quadrangle:
Beverly Hills (1981) and Venice (1982), CA
Ballona Landgrant
Los Angeles County, CA
UTM Zone 11, NAD 83

Project Area

Quarter-mile radius

Appendix B.
DPR Form(s)

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 #:** 12753 W. Washington Boulevard

P1. Other Identifier: N/A

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Venice **Date:** 1981 **T** 2S; **R** 15W; **Sec** Ballona Landgrant**; S.B.B.M.**

c. Address: 12753 W. Washington Boulevard City: Los Angeles Zip: 90066

d. UTM: Zone: 11N; 367330 mE/ 3762680 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate)
The property is located at Assessor Parcel Number (APN) 4236-020-001

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)
17753 W. Washington Boulevard is a one-story Modern-style commercial building constructed in 1958. The building is of concrete construction, has a rectangular plan, and a flat roof with a short parapet on the north and south elevations. The east elevation features non-historic commercial glass doors and windows. A boxed patio cover extends over the elevation. The south elevation features concrete block and no fenestration. The north elevation is concrete tilt-up with stucco siding and no fenestration. The west elevation features stucco siding, an entrance door and windows with security bars.

***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 (Isolates, etc.)

P5a. Photo or Drawing **(**Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #)
View of east elevation, facing northwest, November 14, 2019

***P6. Date Constructed/Age and Sources:**
■Historic ☐Prehistoric ☐Both
1958 (Los Angeles County Assessor)

***P7. Owner and Address:**
Bastion Development Corporation
500-1681 Chestnut Street
Vancouver, BC V6J 4M6

***P8. Recorded by:** (Name, affiliation, and address)
PaleoWest
3990 Old Town Avenue, Suite C101
San Diego, CA 92110

***P9. Date Recorded:** October 2019

***P10. Survey Type:** (Describe): Reconnaissance

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") R. Thomas and J. Castells. Cultural Resource Investigation in Support of the Triangle Centre Mixed Use Project, Los Angeles, Los Angeles County, California. PaleoWest, 2019.

***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 ☐ Other (List):

B1. Historic Name: 12753 W. Washington Boulevard
B2. Common Name: 12753 W. Washington Boulevard
B3. Original Use: Commercial building **B4. Present Use:** Commercial building
***B5. Architectural Style:** Modern
***B6. Construction History:** (Construction date, alterations, and date of alterations)
Constructed 1958 (Los Angeles County Assessor); replacement windows and doors (dates unknown, based on field observations)

***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:** Commercial building **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

The area comprising present-day Los Angeles County was first settled by small groups of Native Americans for centuries before the first European contact. The first European record of the Los Angeles area was a 1542 notation in a ship's log, in which Portuguese navigator Juan Rodriguez Cabrillo described a bay that he called Bahia de Los Fumos (Bay of the Smokes), named for the smoke seen rising from Tongva campfires on shore. In 1603, another Spanish explorer, Sebastian Vizcaino, called the inlet San Pedro, in honor of St. Peter (City of Los Angeles Cultural Affairs Department 2000). In 1769 Gaspar de Portola and a group of missionaries camped on what is now the banks of the Los Angeles River marking the beginning of Spanish occupation of the region (County of Los Angeles 2018).

In September 1771, Father Junipero Serra and a group of Spaniards founded two missions in the Los Angeles area, the San Gabriel Mission as the fourth mission established in California and San Fernando Rey de Espana Mission, founded in 1797 as the seventeenth mission (City of Los Angeles Cultural Affairs Department 2000). Ten years after the establishment of the San Gabriel Mission, the Pobladores, a group of 11 families recruited from Mexico by Capt. Rivera y Moncada, traveled from the San Gabriel Mission to a spot selected by Alta California Gov. Felipe de Neve to establish a new pueblo. The settlement was named El Pueblo de la Reyna de Los Angeles (The Pueblo of the Queen of the Angels). In its early years, the town was a small, isolated cluster of adobe-brick houses and random streets carved out of the desert, and its main product was grain. Over time, the area became known as the Ciudad de Los Angeles, "City of Angels" (County of Los Angeles 2018).

(See Continuation Sheet)

B11. Additional Resource Attributes: (List attributes and codes) N/A

***B12. References:**
Refer to Continuation Sheet

B13. Remarks: N/A

***B14. Evaluator:** J. Castells, MA

***Date of Evaluation:** November 2019

(Sketch Map with north arrow required.)

***D6. Significance (Continued):**

Following the establishment of the presidio, the mission, and the pueblo, another Spanish institution took hold in California: the rancho. The Governor of the Californias awarded land grants to retired soldiers and loyalists to the Spanish crown (City of Los Angeles Cultural Affairs Department 2000). Under Spain, the Los Angeles area came to have a dozen ranchos. For 40 years, from 1781 to 1821, Los Angeles was a Spanish pueblo. By the close of the Spanish Period, there were 12 more ranchos granted and occupied in Los Angeles County, comprising 15 of the 25 ranchos in the entire province (Caughey and Caughey 1977).

In 1821, Mexico won its independence from Spain, bringing the Pueblo of Los Angeles and the rest of Spanish California under Mexican governance. The newly-formed Mexican government sponsored the formation of pueblos, awarded large tracts of land to those integral to its independence movement, and secularized the old Spanish missions, opening the former mission lands up to public settlement. Under Spain, the Los Angeles area came to have a dozen ranchos; under Mexico, about two hundred. The Mexican Period was marked by an extensive era of land grants, most of which were in the interior of the state, and by exploration by American fur trappers west of the Sierra Nevada Mountains (Caughey and Caughey 1977).

During the 1830s and 1840s, disputes between Mexico and the neighboring United States over land rights became increasingly contentious, eventually resulting in the Mexican American War in 1846. During the war, on August 13, 1846, Captain John Fremont entered the Pueblo of Los Angeles and declared it an American territory. The Treaty of Cahuenga ended the conflict in California in 1847. The subsequent Treaty of Guadalupe Hidalgo, signed in 1848, brought an end to the war and transferred the lands of Alta California to the United States (City of Los Angeles Cultural Affairs Department 2000).

In 1850, only two years after California became a United States territory, it was admitted as the 31st state, largely due to the discovery of gold in 1848 at Sutter's Mill. Following this discovery, California was transformed from what had been called a "backwoods frontier of Mexico," to the new Anglo-American "Golden State." Los Angeles became one of California's original 27 counties, created by the state's first legislature on February 18, 1850. The County encompassed 4,340 square miles, and originally contained all of San Bernardino County, a large portion of Kern County, and all of Orange County. During the 1850s and 1860s, Los Angeles County went through several boundary changes: in 1853, an act created Kern County from territory that was previously part of Tulare and Los Angeles Counties; and in 1889, a similar act created Orange County from Los Angeles County lands to the southeast of Coyote Creek (URS Corporation 2012).

The City of Los Angeles was incorporated in 1850 with a population of just over 1600. From 1850 to 1870, Los Angeles remained an isolated, rough-and-tumble frontier town. Economic life in those years continued to be shaped by the agriculture of the ranchos. A drought in 1862 destroyed many cattle, undermining the economic base as well as the personal security of the rancheros. The Gold Rush created a period of great prosperity. Cattle from Los Angeles, formerly prized only for their hides and tallow, suddenly were seen as a food source, and fortunes were made shipping meat to the miners. With the gradual introduction of a cash economy replacing the barter economy of the Mexican era, the rancheros were forced to mortgage their land to obtain money. By 1865, four-fifths of the ranchos were in American hands, and Los Angeles grew slowly over the next two decades (City of Los Angeles Cultural Affairs Department 2000).

In 1886, the Santa Fe Railroad completed its Los Angeles link of the transcontinental railroad, breaking the Southern Pacific monopoly. In the ensuing rate war, the price of a St. Louis to Los Angeles ticket dropped at one point to one dollar. The irresistible fare, huge tracts of available land, outrageous publicity, and hordes of Midwesterners eager to retire from snowy winters, combined to create a huge influx of tourists and new residents. The Santa Fe Company became a major town founder and land developer. By 1889 the boom subsided, but "Los Angeles" had become a household name (City of Los Angeles Cultural Affairs Department 2000).

(See Continuation Sheet)

***D6. Significance (Continued):**

Between 1890 to 1900, major improvements were made in the city's infrastructure. A public transportation system was created, water supplies were enlarged, oil was discovered, and the harbor was improved further attracting people to settle in the region. Smaller communities outside of the original land grant were annexed to the City of Los Angeles, initiating a pattern that would ultimately increase the City's area by 200% (City of Los Angeles Cultural Affairs Department 2000).

By 1912, the film industry became established in Los Angeles. Many eastern companies had either moved to or established branches in Los Angeles. As Europe plunged into World War I, that continent's film production slowed. Audiences in the United States and abroad looked increasingly to Hollywood for entertainment. The movie industry took root in Los Angeles and flourished in the mild climate (City of Los Angeles Cultural Affairs Department 2000).

During the Depression, unemployed workers flocked to Los Angeles looking for economic and social opportunity. Airplanes, clothing, and tires joined oil, movies, and citriculture were the major economic sectors driving the economy of Los Angeles. A new spurt of population growth and industrial expansion during World War II continued into the 1950s. The aerospace industry continued to expand until the end of the Cold War in the 1970s and 1980s. During the 1990s recession slowed economic growth in the City at the beginning of the decade. Civil disturbances in 1992 destroyed many buildings and structures in urban neighborhoods throughout the City. The 1994 Northridge Earthquake was yet another blow to the economy, causing considerable damage to historic structures and buildings throughout the region. While the rest of the nation recovered economically in the mid-1990s, Los Angeles' economy took two additional years to recover (City of Los Angeles Cultural Affairs Department 2000).

While located within the City of Los Angeles, the building is also located in close proximity to the neighborhood of Culver City West.

José Manuel Machado and his wife, Maria, traveled from Sinaloa, Mexico on the Rivera expedition of 1781. Machado continued to serve as a soldier in different locations until he retired to the pueblo of Los Angeles in 1797. Jose Machado's death in 1810 forced the sons to provide for the family's future. Agustín and his brother Ygnacio Machado, after unsuccessful attempts to acquire land near the pueblo, decided to settle in the area that became Culver City and raise cattle on Rancho La Ballona which they established in 1819 with two partners, Felipe Talamantes and his son Tomás. After California entered the Union, Culver City was formed from portions of the 14,000 acre Rancho La Ballona and Rincón de Los Bueyes land grants (Culver City 2019).

Harry H. Culver started plans for Culver City in 1913, and the city was incorporated in 1917. He cose the site for a number of factors including the temperature, its location along transportation routes and railroad tracks, and for being halfway between the growing pueblo of Los Angeles and Abbot Kinney's resort of Venice. In the early days of the city, the trustees concentrated on the actions necessary to form the city. City tracts and streets were named and paved, a numbering system was adopted, and employees hired to take care of the business of the city. The Fire and Police Departments were established. Film studios began to establish in the area becoming the early economic drive in the area. Industry came in the form of Western Stove in 1922, Helms Bakeries in 1930, and Hayden Industrial Tract was established in the 1940s. Like most of the country, the advent of World War II stalled development, but the area saw a period of growth in the post-war years (Culver City 2019).

Over the years, more than forty annexations increased city size to about five square miles. Culver City transitioned from a general law city to a charter city in 1947. In addition to city government, schools became a part of the community, and by 1949, Culver City had its own Unified School District, meaning that education was available through secondary school. By 1971, the City Council became aware of the need for redevelopment, and formed the Culver City Redevelopment Agency. The first major project accomplished under the Agency was the Fox Hills Mall, which opened in 1975. Redevelopment is ongoing. By the year 2000, the city had quadrupled in size and became a community of nearly 40,000 residents (Culver City 2019).

(See Continuation Sheet)

***D6. Significance (Continued):**

The building located at 12753 W. Washington Boulevard was constructed in 1958. The building was constructed during a period of transition in the surrounding area. Prior to 1958 the surrounding area las largely residential with some commercial buildings along Washington Boulevard. By 1958 many residences had been replaced with commercial buildings (NETR 2019). Research yielded little information regarding the previous occupants of the commercial building, however; in 1985 Triangle Vacuum and Sewing Center was listed at the address (Los Angeles Times 1985).

CRHR Evaluation

The historical significance of the subject property was determined by applying the procedure and criteria forth by the California Register of Historical Resources (CRHR).

CRHR Criterion 1: 12753 W. Washington Boulevard does not meet CRHR Criterion 1 for association with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. The building is one of many commercial buildings constructed throughout Los Angeles, California, and the United States during the mid-twentieth century. Research has yielded no information to suggest that any significant events associated with the history of Los Angeles, California, or the United States are specifically associated with this building. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 1.

CRHR Criterion 2: 12753 W. Washington Boulevard does not meet CRHR Criterion 2 for any direct associations with the productive lives of persons important in local, state, or national history. The building has been used by a number of businesses, however; research has yielded no information to suggest that other persons of potential historical significance are specifically associated with this building. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 2.

CRHR Criterion 3: 12753 W. Washington Boulevard does not to meet CRHR Criterion 3 for embodying the distinctive characteristics of a type, period, and method of construction, or as the work of an important creative individual, or as having high artistic value. The building is an unremarkable and common example of a Modern-style commercial building. It is one of many commercial buildings constructed throughout Los Angeles and California in this style during the mid-twentieth century. While the architect and builder of the building were not identified, it is unlikely that the building represents the work of a master. Therefore, 12753 W. Washington Boulevard is not eligible for the CRHR under Criterion 3.

City of Los Angeles Historic-Cultural Monument

12753 W. Washington Boulevard is recommended not eligible as a City of Los Angeles Historic-Cultural Monument following the reasons outlined in the preceding section regarding eligibility under the comparable CRHR criteria.

***B12. References (Continued):**

Caughey, John and LaRee Caughey.
1977 *Los Angeles: Biography of a City.* Berkeley and Los Angeles: University of California Press.

City of Los Angeles Cultural Affairs Department.
2000 *Cultural Heritage Masterplan, Final Draft*.

County of Los Angeles
2018 "History." Accessed at: https://www.lacounty.gov/government/about-la-county/history/

Culver City
2019 "Culver City: Overview." Accessed at: https://www.culvercity.org/how-do-i/learn/about-culver-city/history-of-culver-city/early-settlers-of-culver-city/overview

(See Continuation Sheet)

***B12. References (Continued):**

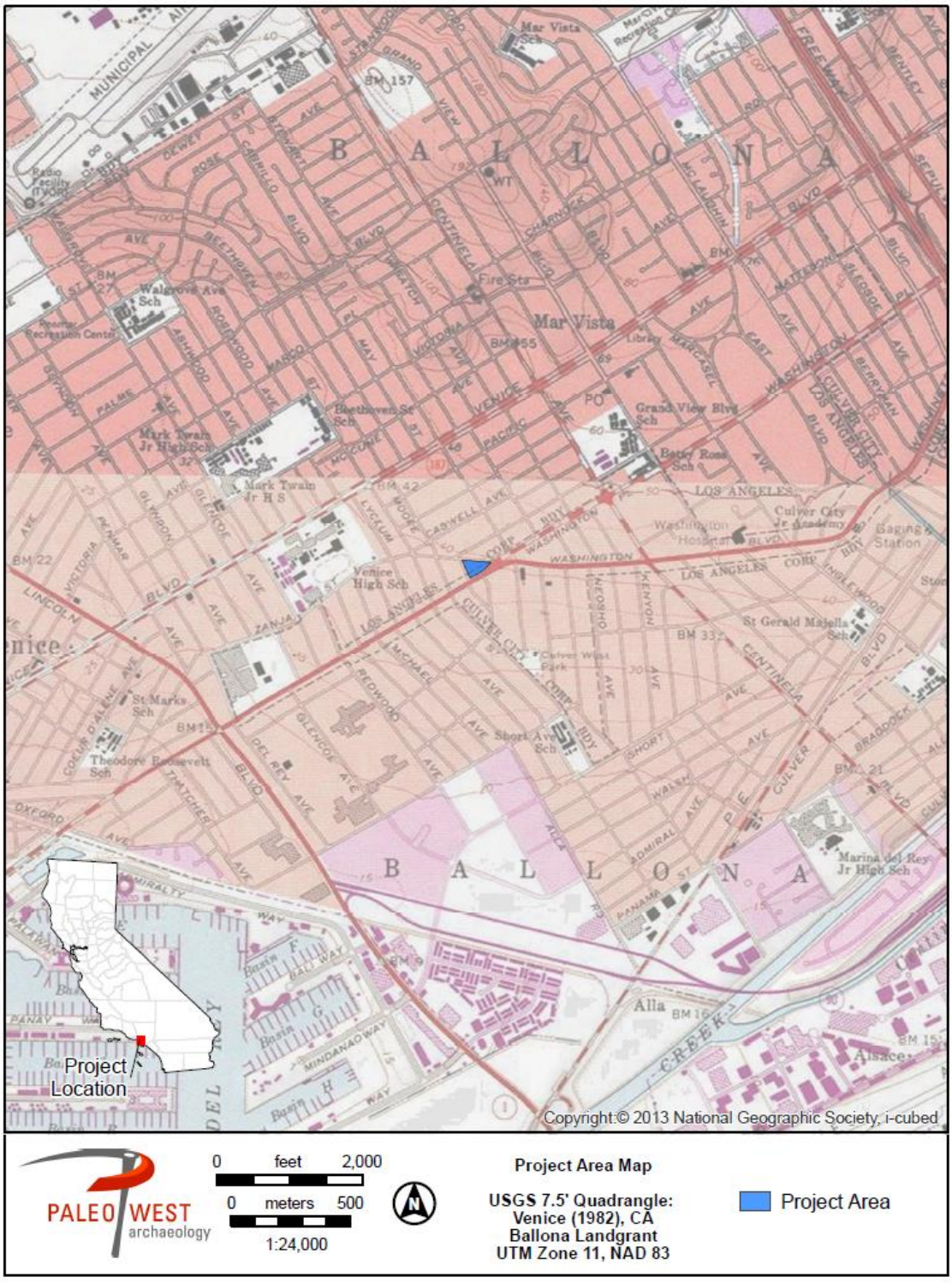
Los Angeles County Assessor
2019 Los Angeles County Assessor Property Files for 12753 W. Washington Boulevard. On file at the Los Angeles County Assessor.

Los Angeles Times
2019 "Display Ad 402-No Title." *Los Angeles Times*, September 12, 1985.

URS Corporation.
2012 *Draft EIR/EIS for the California High-Speed Train Project, Palmdale-Sylmar.*

South elevation, facing northwest

North and west elevations, facing southeast


B A L L O N A
Mar Vista
Project Location
Copyright:© 2013 National Geographic Society, i-cubed
PALEO WEST archaeology
0 feet 2,000
0 meters 500
1:24,000
Project Area Map
USGS 7.5' Quadrangle:
Venice (1982), CA
Ballona Landgrant
UTM Zone 11, NAD 83
Project Area

Attachment N

Geotechnical Investigation

Geotechnologies, Inc.
Consulting Geotechnical Engineers

439 Western Avenue
Glendale, California 91201-2837
818.240.9600 • Fax 818.240.9675

March 29, 2018
File Number 21560

Bastion Development Corporation
11955 West Washington Boulevard
Suite 103
Culver City, California 90066

Attention: Reid Kaufmann

Subject: Geotechnical Engineering Investigation
Proposed Mixed-Use Development
12727 and 12753 West Washington Boulevard, Culver City, California;
3984 and 3988 South Meier Street, and 12740 and 12750 West Zanja Street,
Los Angeles, California

Dear Mr. Kaufmann:

This letter transmits the Geotechnical Engineering Investigation for the subject site prepared by Geotechnologies, Inc. This report provides geotechnical recommendations for the development of the site, including earthwork, seismic design, retaining walls, excavations, shoring and foundation design. Engineering for the proposed project should not begin until approval of the geotechnical investigation is granted by the local building official. Significant changes in the geotechnical recommendations may result due to the building department review process.

The validity of the recommendations presented herein is dependent upon review of the geotechnical aspects of the project during construction by this firm. The subsurface conditions described herein have been projected from limited subsurface exploration and laboratory testing. The exploration and testing presented in this report should in no way be construed to reflect any variations which may occur between the exploration locations or which may result from changes in subsurface conditions.

Should you have any questions please contact this office.

Respectfully submitted,
GEOTECHNOLOGIES, INC.

GREGORIO VARELA
R.C.E. 81201

REGISTERED PROFESSIONAL ENGINEER
GREGORIO VARELA
No. 81201
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GEOTECHNICAL ENGINEERING INVESTIGATION
PROPOSED MIXED-USE DEVELOPMENT
12727 AND 12753 WEST WASHINGTON BOULEVARD
CULVER CITY, CALIFORNIA;
3984 AND 3988 SOUTH MEIER STREET
AND 12740 AND 12750 WEST ZANJA STREET
LOS ANGELES, CALIFORNIA

INTRODUCTION

This report presents the results of the geotechnical engineering investigation performed on the subject site. The purpose of this investigation was to identify the distribution and engineering properties of the geologic materials underlying the site, and to provide geotechnical recommendations for the design of the proposed development.

This investigation included four exploratory borings, collection of representative samples, laboratory testing, engineering analysis, review of published geologic data, review of available geotechnical engineering information and the preparation of this report. The exploratory excavation locations are shown on the enclosed Plot Plan. The results of the exploration and the laboratory testing are presented in the Appendix of this report.

It should be noted that the northern portion of the site is located within the limits of the City of Los Angeles, while the southern portion of the site is located within the limits of the City of Culver City. At this time, it is unknown which of the two jurisdictions will review the proposed project.

PROPOSED DEVELOPMENT

Information concerning the proposed development was furnished by the client. The site is proposed to be developed with a mixed-use structure. The structure is proposed to be six stories in height, constructed over one subterranean parking level. The exact depth of the proposed subterranean parking level is not known at this time. However, based on the experience of this firm, it is anticipated that the subterranean level may extend to a depth between 10 and 12 feet below the existing grade. The enclosed Plot Plan shows the anticipated location and alignment of the proposed structure.

Column loads are estimated to be between 400 and 1,000 kips. Wall loads are estimated to be between 5 and 30 kips per lineal foot. These loads reflect the dead plus live load. Grading is expected to consist of excavations on the order of 12 to 16 feet for construction of the proposed subterranean level, including foundation elements.

Any changes in the design of the project or location of any structure, as outlined in this report, should be reviewed by this office. The recommendations contained in this report should not be considered valid until reviewed and modified or reaffirmed, in writing, subsequent to such review.

SITE CONDITIONS

The site is triangular in shape, and approximately 1¼ acres in area, delimited by Zanja Street to the north, Washington Boulevard to the south-east, and Meier Street to the west. The site is bisected by the boundary between the City of Los Angeles and the City of Culver City. The site is shown relative to nearby topographic features in the enclosed Vicinity Map.

Based on review of the Topographic Survey prepared by Cal Vada Surveying, Inc., dated October 30, 2017, the site grade descends gently to the southwest. A topographic relief on the order of 2 feet is observed across the site. The site is currently developed with two single-story commercial buildings, and an asphalt-paved parking lot.

Vegetation at the site is limited, and consists of mature trees and shrubs, contained in manicured planter islands. Drainage across the site appears to be by sheetflow to the city streets.

GEOTECHNICAL EXPLORATION

FIELD EXPLORATION

The site was explored on February 19 and 20, 2018 by drilling four borings. The borings were drilled to depths ranging between 40 and 68 feet below grade, with the aid of a truck-mounted drilling machine using 8-inch diameter hollowstem augers. The exploration locations are shown on the Plot Plan and the geologic materials encountered are logged on Plates A-1 through A-4.

The location of exploratory excavations was determined by information furnished from hardscape features shown on the attached Plot Plan. Elevations of the exploratory excavations were obtained by review of the Topographic Survey prepared by Cal Vada Surveying, Inc., dated October 30, 2017. The location and elevation of the exploratory excavations should be considered accurate only to the degree implied by the method used.

Geologic Materials

Fill materials were encountered in all four exploratory borings, to depths ranging between 2½ and 3 feet below the existing grade. The fill consists of sandy silt and silty clay, which is dark brown, slightly moist, and stiff.

The fill is in turn underlain by native alluvial soils consisting of interlayered mixtures of sand, silt and clay. The native alluvial soils range from orange to brown to gray in color, and are slightly moist to saturated, medium dense to very dense, or stiff to very stiff, and fine to coarse grained, with gravel. More detailed descriptions of the earth materials encountered may be obtained from individual logs of the subsurface excavations.

Groundwater

Groundwater was encountered in all exploratory borings, to depths ranging between 35 and 37 feet below the existing grade. Based on elevations presented in the Topographic Survey prepared by Cal Vada Surveying, Inc., dated October 30, 2017, the observed groundwater depths correspond to approximate elevations ranging between 1.8 and 3.6 feet.

According to groundwater data provided in the Seismic Hazard Zone Report of the Venice 7½-Minute Quadrangle, the historically highest groundwater level for the site was on the order of 14 feet below the ground surface (CDMG, 1998, Revised 2006). A copy of the historically highest groundwater map is enclosed herein. Based on an average site elevation of 38.5 feet, it is the opinion of this firm that the historically highest groundwater level for the site corresponds to elevation 24.5 feet.

Fluctuations in the level of groundwater may occur due to variations in rainfall, temperature, and other factors not evident at the time of the measurements reported herein. Fluctuations also may occur across the site. High groundwater levels can result in changed conditions.

Caving

Caving could not be directly observed during exploration due to the type of excavation equipment utilized. Based on the experience of this firm, large diameter excavations, excavations that encounter granular, cohesionless soils and excavations below the groundwater table will most likely experience caving.

SEISMIC EVALUATION

REGIONAL GEOLOGIC SETTING

The subject property is located in the northern portion of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges are characterized by northwest-trending blocks of mountain ridges and sediment-floored valleys. The dominant geologic structural features are northwest trending fault zones that either die out to the northwest or terminate at east-trending reverse faults that form the southern margin of the Transverse Ranges.

The Los Angeles Basin is located at the northern end of the Peninsular Ranges Geomorphic Province. The basin is bounded by the east and southeast by the Santa Ana Mountains and San Joaquin Hills, to the northwest by the Santa Monica Mountains. Over 22 million years ago the Los Angeles basin was a deep marine basin formed by tectonic forces between the North American and Pacific plates. Since that time, over 5 miles of marine and non-marine sedimentary rock as well as intrusive and extrusive igneous rocks have filled the basin. During the last 2 million years, defined by the Pleistocene and Holocene epochs, the Los Angeles basin and surrounding mountain ranges have been uplifted to form the present day landscape. Erosion of the surrounding mountains has resulted in deposition of unconsolidated sediments in low-lying areas by rivers such as the Los Angeles River. Areas that have experienced subtle uplift have been eroded with gullies.

REGIONAL FAULTING

Based on criteria established by the California Division of Mines and Geology (CDMG) now called California Geologic Survey (CGS), faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,000 years (Holocene-age). Potentially-active faults are those that show evidence of most recent surface displacement within the last 1.6 million years (Quaternary-age). Faults showing no evidence of surface displacement within the last 1.6 million years are considered inactive for most purposes, with the exception of design of some critical structures.

Buried thrust faults are faults without a surface expression but are a significant source of seismic activity. They are typically broadly defined based on the analysis of seismic wave recordings of hundreds of small and large earthquakes in the southern California area. Due to the buried nature of these thrust faults, their existence is usually not known until they produce an earthquake. The risk for surface rupture potential of these buried thrust faults is inferred to be low (Leighton, 1990). However, the seismic risk of these buried structures in terms of recurrence and maximum potential magnitude is not well established. Therefore, the potential for surface rupture on these surface-verging splays at magnitudes higher than 6.0 cannot be precluded.

SEISMIC HAZARDS AND DESIGN CONSIDERATIONS

The primary geologic hazard at the site is moderate to strong ground motion (acceleration) caused by an earthquake on any of the local or regional faults. The potential for other earthquake-induced hazards was also evaluated including surface rupture, liquefaction, dynamic settlement, inundation and landsliding.

Surface Rupture

In 1972, the Alquist-Priolo Special Studies Zones Act (now known as the Alquist-Priolo Earthquake Fault Zoning Act) was passed into law. The Act defines "active" and "potentially active" faults utilizing the same aging criteria as that used by California Geological Survey (CGS). However, established state policy has been to zone only those faults which have direct evidence of movement within the last 11,000 years. It is this recency of fault movement that the CGS considers as a characteristic for faults that have a relatively high potential for ground rupture in the future.

CGS policy is to delineate a boundary from 200 to 500 feet wide on each side of the known fault trace based on the location precision, the complexity, or the regional significance of the fault. If

a site lies within an Earthquake Fault Zone, a geologic fault rupture investigation must be performed that demonstrates that the proposed building site is not threatened by surface displacement from the fault before development permits may be issued.

Ground rupture is defined as surface displacement which occurs along the surface trace of the causative fault during an earthquake. Based on research of available literature and results of site reconnaissance, no known active or potentially active faults underlie the subject site. In addition, the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Based on these considerations, the potential for surface ground rupture at the subject site is considered low.

Liquefaction

Liquefaction is a phenomenon in which saturated silty to cohesionless soils below the groundwater table are subject to a temporary loss of strength due to the buildup of excess pore pressure during cyclic loading conditions such as those induced by an earthquake. Liquefaction-related effects include loss of bearing strength, amplified ground oscillations, lateral spreading, and flow failures.

The Seismic Hazards Maps of the State of California (CDMG, 1999), does not classify the site as part of the potentially "Liquefiable" area. This determination is based on groundwater depth records, soil type and distance to a fault capable of producing a substantial earthquake.

A site-specific liquefaction analysis was performed following the Recommended Procedures for Implementation of the California Geologic Survey Special Publication 117A, Guidelines for Analyzing and Mitigating Seismic Hazards in California (CGS, 2008), and the EERI Monograph (MNO-12) by Idriss and Boulanger (2008). This semi-empirical method is based on a correlation between measured values of Standard Penetration Test (SPT) resistance and field performance data.

Groundwater was encountered during exploration, at a depth of 35 to 37 feet below the ground surface. Based on review of the seismic hazard zone report of the Venice 7½-minute quadrangle (CDMG, 1998, revised 2006), the historic-high groundwater level for the site was 14 feet below the ground surface. Both the historic highest groundwater level and the current groundwater level were utilized for the enclosed liquefaction analysis.

Section 11.8.3 of ASCE 7-10 indicates that the potential for liquefaction shall be evaluated utilizing an acceleration consistent with the MCE_G PGA. Utilizing the USGS U.S. Seismic Design Maps tool, this corresponds to a PGA_M of 0.67g. The USGS Probabilistic Seismic Hazard Deaggregation program (USGS, 2008) indicates a PGA of 0.68g (2 percent in 50 years ground motion) and a mean magnitude of 6.8 for the site. The liquefaction potential evaluation was performed by utilizing a magnitude 6.8 earthquake, and a peak horizontal acceleration of 0.68g.

The enclosed "Empirical Estimation of Liquefaction Potential" is based on Boring 2. Standard Penetration Test (SPT) data were collected at 5-foot intervals. Samples of the collected materials were conveyed to the laboratory for testing and analysis. Fines content, as defined by percentage passing the #200 sieve were utilized for the fines correction factor in computing the corrected blow count of selected soil layers. Fine contents results are present in Plate E of this report.

The site-specific liquefaction analysis included in the Appendix, indicates that the site soils would not be prone to liquefaction during the ground motion expected during the design basis earthquake.

Dynamic Dry Settlement

Seismically-induced settlement or compaction of dry or moist, cohesionless soils can be an effect related to earthquake ground motion. Such settlements are typically most damaging when the settlements are differential in nature across the length of structures.

Some seismically-induced settlement of the proposed structures should be expected as a result of strong ground-shaking, however, due to the uniform nature of the underlying geologic materials, excessive differential settlements are not expected to occur.

Tsunamis and Flooding

Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. Review of the City of Los Angeles Inundation and Tsunami Hazard Areas map indicates the site does not lie within the mapped tsunami inundation boundaries.

Review of the City of Los Angeles Inundation and Tsunami Hazard Areas map indicates the site does lie within mapped inundation boundaries for the Stone Canyon, Lower Franklin, and Hollywood Reservoirs. A determination of whether a higher site elevation would remove the site from the potential inundation zones is beyond the scope of this investigation.

Landsliding

The probability of seismically-induced landslides occurring on the site is considered to be low due to the general lack of elevation difference across or adjacent to the site.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the exploration, laboratory testing, and research, it is the finding of Geotechnologies, Inc. that construction of the proposed structure is considered feasible from a geotechnical engineering standpoint provided the advice and recommendations presented herein are followed and implemented during construction.

Fill materials were encountered during exploration to depths ranging between 2½ and 3 feet below the existing site grade. The existing fill materials are unsuitable for support of new foundations and concrete slabs-on-grade. It is however anticipated that the existing fill will be removed during excavation of the proposed subterranean parking level. The proposed structure may be supported by conventional foundations bearing in the native alluvial soils expected at the subgrade of the proposed subterranean level.

Groundwater was observed in all four exploratory borings, to depths ranging between 35 and 37 feet below the existing grade. These groundwater levels correspond to elevations ranging between 3.6 and 1.8 feet. The historically highest groundwater level for the site is on the order of 14 feet below grade. Based on the average site elevation observed across the footprint of the proposed structure, it is the opinion of this firm that the historically highest groundwater level for the project may be considered to correspond to elevation 24.5 feet.

Where elements of a proposed development extend below the historically highest groundwater level, the structure should either be designed to resist potential hydrostatic forces, or a permanent dewatering system should be installed so that external water pressure does not develop against the proposed retaining walls and slabs-on-grade. While the exact depth of the proposed subterranean parking level is unknown at this time, it is anticipated that its finished grade would be above elevation 24.5 feet. Recommendations provided herein assume that the finished floor elevation of the lowest subterranean level will be located at or above the historically highest groundwater level (elevation 24.5 feet). Therefore, the proposed subterranean retaining walls may be designed for a drained condition, provided that a subdrain system is installed. In the event that the subterranean level will extend below the historically highest groundwater elevation, please contact this firm so the appropriate recommendations are provided.

The proposed subterranean level will extend adjacent to the property lines. Therefore the excavation for the proposed subterranean level will require temporary shoring in order to provide a stable excavation. Shoring recommendations are provided in the "Excavations" section of this report.

The validity of the conclusions and design recommendations presented herein is dependent upon review of the geotechnical aspects of the proposed construction by this firm. The subsurface conditions described herein have been projected from excavations on the site as indicated and should in no way be construed to reflect any variations which may occur between these excavations or which may result from changes in subsurface conditions. Any changes in the design, as outlined in this report, should be reviewed by this office. The recommendations contained herein should not be considered valid until reviewed and modified or reaffirmed subsequent to such review.

SEISMIC DESIGN CONSIDERATIONS

2016 California Building Code Seismic Parameters

Based on information derived from the subsurface investigation, the subject site is classified as Site Class D, which corresponds to a "Stiff Soil" Profile, according to Table 20.3-1 of ASCE 7-10. This information and the site coordinates were input into the USGS U.S. Seismic Design Maps tool (Version 3.1.0) to calculate the ground motions for the site.

2016 CALIFORNIA BUILDING CODE SEISMIC PARAMETERS	
Site Class	D
Mapped Spectral Acceleration at Short Periods (S_S)	1.790g
Site Coefficient (F_a)	1.0
Maximum Considered Earthquake Spectral Response for Short Periods (S_{MS})	1.790g
Five-Percent Damped Design Spectral Response Acceleration at Short Periods (S_{DS})	1.193g
Mapped Spectral Acceleration at One-Second Period (S_1)	0.675g
Site Coefficient (F_v)	1.5
Maximum Considered Earthquake Spectral Response for One-Second Period (S_{M1})	1.013g
Five-Percent Damped Design Spectral Response Acceleration for One-Second Period (S_{D1})	0.675g

EXPANSIVE SOILS

The onsite geologic materials are in the very low to high expansion range. The Expansion Index was found to be between 2 and 102 for representative bulk samples. Recommended reinforcing is provided in the "Foundation Design" and "Slab-On-Grade" sections of this report.

WATER-SOLUBLE SULFATES

The Portland cement portion of concrete is subject to attack when exposed to water-soluble sulfates. Usually the two most common sources of exposure are from soil and marine environments.

The sources of natural sulfate minerals in soils include the sulfates of calcium, magnesium, sodium, and potassium. When these minerals interact and dissolve in subsurface water, a sulfate concentration is created, which will react with exposed concrete. Over time sulfate attack will destroy improperly proportioned concrete well before the end of its intended service life.

The water-soluble sulfate content of the onsite geologic materials was tested by California Test 417. The water-soluble sulfate content was determined to be less than 0.1% percentage by weight for the soils tested. Based on American Concrete Institute (ACI) Standard 318-08, the sulfate exposure is considered to be negligible for geologic materials with less than 0.1% and Type I cement may be utilized for concrete foundations in contact with the site soils.

METHANE ZONES

This office has reviewed the City of Los Angeles Methane and Methane Buffer Zones map. Based on this review it appears that the subject property is not located within a Methane Zone or Methane Buffer Zone, as designated by the City.

GRADING GUIDELINES

The following guidelines are provided for any miscellaneous compaction that may be required, such as retaining wall or trench backfill, or subgrade preparation.

Site Preparation

- A thorough search should be made for possible underground utilities and/or structures. Any existing or abandoned utilities or structures located within the footprint of the proposed grading should be removed or relocated as appropriate.
- All vegetation, existing fill, and soft or disturbed geologic materials should be removed from the areas to receive controlled fill. All existing fill materials and any disturbed geologic materials resulting from grading operations shall be completely removed and properly recompacted prior to foundation excavation.
- Any vegetation or associated root system located within the footprint of the proposed structures should be removed during grading.
- Subsequent to the indicated removals, the exposed grade shall be scarified to a depth of six inches, moistened to optimum moisture content, and recompacted in excess of the minimum required comparative density.

- The excavated areas shall be observed by the geotechnical engineer prior to placing compacted fill.

Compaction

The City of Los Angeles Department of Building and Safety requires a minimum comparative compaction of 95 percent of the laboratory maximum density where the soils to be utilized in the fill have less than 15 percent finer than 0.005 millimeters. Fill materials having more than 15 percent finer than 0.005 millimeters may be compacted to a minimum of 90 percent of the maximum density.

All fill should be mechanically compacted in layers not more than 8 inches thick. Based on the very low to high expansion index of the site soils, it is recommended that fill materials are moisture conditioned to approximately 3 to 5 percent over optimum moisture content before recompaction.

Field observation and testing shall be performed by a representative of the geotechnical 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 a minimum of 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) compaction is obtained.

Acceptable Materials

The excavated onsite materials are considered satisfactory for reuse in the controlled fills as long as any debris and/or organic matter is removed. Any imported materials shall be observed and tested by the representative of the geotechnical engineer prior to use in fill areas. Imported materials should contain sufficient fines so as to be relatively impermeable and result in a stable subgrade when compacted. Any required import materials should consist of geologic materials

with an expansion index of less than 30. The water-soluble sulfate content of the import materials should be less than 0.1% percentage by weight.

Imported materials should be free from chemical or organic substances which could affect the proposed development. A competent professional should be retained in order to test imported materials and address environmental issues and organic substances which might affect the proposed development.

Utility Trench Backfill

Utility trenches should be backfilled with controlled fill. The utility should be bedded with clean sands at least one foot over the crown. The remainder of the backfill may be onsite soil compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the laboratory maximum density. Utility trench backfill should be tested by representatives of this firm in accordance with the most recent revision of ASTM D-1557.

Shrinkage

Shrinkage results when a volume of soil removed at one density is compacted to a higher density. A shrinkage factor between 5 and 15 percent should be anticipated when excavating and recompacting the existing fill and underlying native geologic materials on the site to an average comparative compaction of 92 percent.

Weather Related Grading Considerations

When rain is forecast all fill that has been spread and awaits compaction shall be properly compacted prior to stopping work for the day or prior to stopping due to inclement weather.

These fills, once compacted, shall have the surface sloped to drain to an area where water can be removed.

Temporary drainage devices should be installed to collect and transfer excess water to the street in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope.

Work may start again, after a period of rainfall, once the site has been reviewed by a representative of this office. Any soils saturated by the rain shall be removed and aerated so that the moisture content will fall within three percent of the optimum moisture content.

Surface materials previously compacted before the rain shall be scarified, brought to the proper moisture content and recompacted prior to placing additional fill, if considered necessary by a representative of this firm.

Abandoned Seepage Pits

No abandoned seepage pits were encountered during exploration and none are known to exist on the site. However, should such a structure be encountered during grading, options to permanently abandon seepage pits include complete removal and backfill of the excavation with compacted fill, or drilling out the loose materials and backfilling to within a few feet of grade with slurry, followed by a compacted fill cap.

If the subsurface structures are to be removed by grading, the entire structure should be demolished. The resulting void may be refilled with compacted soil. Concrete and brick generated during the seepage pit removal may be reused in the fill as long as all fragments are less than 6 inches in longest dimension and the debris comprises less than 15 percent of the fill by volume. All grading should comply with the recommendations of this report.

Where the seepage pit structure is to be left in place, the seepage pits should cleaned of all soil and debris. This may be accomplished by drilling. The pits should be filled with minimum 1-1/2 sack concrete slurry to within 5 feet of the bottom of the proposed foundations. In order to provide a more uniform foundation condition, the remainder of the void should be filled with controlled fill.

Geotechnical Observations and Testing During Grading

Geotechnical observations and testing during grading are considered to be a continuation of the geotechnical investigation. It is critical that the geotechnical aspects of the project be reviewed by representatives of Geotechnologies, Inc. during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise this office at least twenty-four hours prior to any required site visit.

Proper compaction is necessary to reduce settlement of overlying improvements. Some settlement of compacted fill should be anticipated. Any utilities supported therein should be designed to accept differential settlement. Differential settlement should also be considered at the points of entry to the structure.

FOUNDATION DESIGN

Conventional

The proposed structure may be supported by conventional foundations bearing in the native alluvial soils expected at the subgrade of the proposed subterranean level. Continuous foundations may be designed for a bearing capacity of 3,000 pounds per square foot, and should be a minimum of 12 inches in width, 24 inches in depth below the lowest adjacent grade and 24 inches into the recommended bearing material.

Column foundations may be designed for a bearing capacity of 3,500 pounds per square foot, and should be a minimum of 24 inches in width, 24 inches in depth below the lowest adjacent grade and 24 inches into the recommended bearing material.

The bearing capacity increase for each additional foot of width is 150 pounds per square foot. The bearing capacity increase for each additional foot of depth is 400 pounds per square foot. The maximum recommended bearing capacity is 6,000 pounds per square foot.

The bearing capacities indicated 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.

Miscellaneous Foundations

Conventional foundations for structures such as privacy walls, trash enclosures or canopies, which will not be rigidly connected to the proposed structure may bear in native soils, or a properly compacted fill pad. Continuous footings may be designed for a bearing capacity of 1,500 pounds per square foot, and should be a minimum of 12 inches in width, 24 inches in depth below the lowest adjacent grade and 24 inches into the recommended bearing material. No bearing capacity increases are recommended.

Since the recommended bearing capacity is a net value, the weight of concrete in the foundations may be taken as 50 pounds per cubic foot and the weight of the soil backfill may be neglected when determining the downward load on the foundations.

Foundation Reinforcement

All continuous foundations should be reinforced with a minimum of four #4 steel bars. Two should be placed near the top of the foundation, and two should be placed near the bottom.

Lateral Design

Resistance to lateral loading may be provided by friction acting at the base of foundations and by passive earth pressure. An allowable coefficient of friction of 0.4 may be used with the dead load forces.

Passive geologic pressure for the sides of foundations poured against undisturbed or recompacted soil may be computed as an equivalent fluid having a density of 300 pounds per cubic foot with a maximum earth pressure of 1,500 pounds per square foot.

The passive and friction components may be combined for lateral resistance without reduction. A one-third increase in the passive value may be used for short duration loading such as wind or seismic forces.

Foundation Settlement

Settlement of the foundation system is expected to occur on initial application of loading. The maximum settlement is not expected to exceed 1 inch and occur below the heaviest loaded columns. Differential settlement is not expected to exceed ¼-inch.

Foundation Observations

It is critical that all foundation excavations are observed by a representative of this firm to verify penetration into the recommended bearing materials. The observation should be performed prior to the placement of reinforcement. Foundations should be deepened to extend into satisfactory geologic materials, if necessary.

Foundation excavations should be cleaned of all loose soils prior to placing steel and concrete. Any required foundation backfill should be mechanically compacted, flooding is not permitted.

RETAINING WALL DESIGN

As mentioned before, the exact depth of the proposed subterranean level is unknown at this time. Based on the experience of this firm, it is anticipated that the finished grade of the proposed subterranean level would extend to a depth between 10 and 12 feet below the existing grade. As a preventive measure, recommendations for the design of retaining walls up to 14 feet in height are provided herein. Retaining walls may be designed as indicated below, depending on whether the walls will be restrained or cantilevered. Retaining wall foundations may be designed in accordance with the provisions of the "Foundation Design" section of this report.

The recommendations provided herein assume that the finished grade for the proposed subterranean level will not extend below the historically highest groundwater level, which was determined to be elevation 24.5 feet. In the event that the finished grade elevation will extend deeper than his elevation, this office shall be contacted so the appropriate recommendations are provided.

Additional pressure should be added for a surcharge condition due to vehicular traffic or adjacent structures. Based on review of the enclosed Flot Plan, it is not anticipated that the proposed retaining walls will be surcharged by existing structures. However, vehicular traffic is expected in the vicinity of the proposed structure. For traffic surcharge, the upper 10 feet of any retaining wall adjacent to streets, driveways or parking areas should be designed to resist a uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot traffic surcharge. If the traffic is more than 10 feet from the retaining walls, the traffic surcharge may be neglected.

Drained Cantilever Retaining Walls

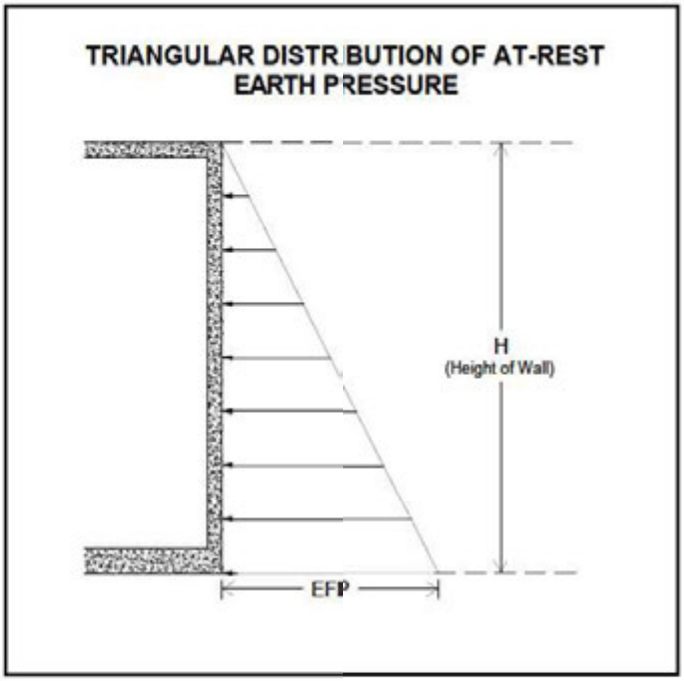
Retaining walls supporting a level backslope may be designed utilizing a triangular distribution of pressure. Cantilever retaining walls may be designed utilizing the following table:

HEIGHT OF WALL (feet)	EQUIVALENT FLUID PRESSURE (pounds per cubic foot)
Up to 14	45

The highly expansive properties of the on-site soils have been considered in the development of the recommended lateral earth pressures. These lateral earth pressures assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures.

Restrained Drained Retaining Walls

Restrained retaining walls may be designed to resist a triangular pressure distribution of at-rest earth pressure as indicated in the diagram below. For the purpose of designing restrained retaining walls up to 14 feet in height, the at-rest pressure would be 61 pounds per cubic foot.



The lateral earth pressure recommended above for retaining walls assumes that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. Also, where necessary, the retaining walls should be designed to accommodate any surcharge pressures that may be imposed by adjacent traffic and existing structures.

Dynamic (Seismic) Earth Pressure

Retaining walls exceeding 6 feet in height shall be designed to resist the additional earth pressure caused by seismic ground shaking. A triangular pressure distribution should be utilized for the additional seismic loads, with an equivalent fluid pressure of 19 pounds per cubic foot. When using the load combination equations from the building code, the seismic earth pressure should be combined with the lateral active earth pressure for analyses of restrained basement walls under seismic loading condition. The dynamic earth pressure may be omitted where the retaining wall is 6 feet in height or less.

Surcharge from Adjacent Structures

The following surcharge equation provided in the LADBS Information Bulletin Document No. P/BC 2014-83, may be utilized to determine the surcharge loads on basement walls and shoring system for existing or proposed structures located within the 1:1 (h:v) surcharge influence zone of the excavation and basement.

Resultant lateral force: $R = (0.3*P*h^2)/(x^2+h^2)$

Location of lateral resultant: $d = x*[(x^2/h^2+1)*\tan^{-1}(h/x)-(x/h)]$

where:

R	=	resultant lateral force measured in pounds per foot of wall width.
P	=	resultant surcharge loads of continuous or isolated footings measured in pounds per foot of length parallel to the wall.
x	=	distance of resultant load from back face of wall measured in feet.
h	=	depth below point of application of surcharge loading to top of wall footing measured in feet.
d	=	depth of lateral resultant below point of application of surcharge loading measure in feet.
$\tan^{-1}(h/x)$	=	the angle in radians whose tangent is equal to h/x.

The structural engineer and shoring engineer may use this equation to determine the surcharge loads based on the loading of the adjacent structures located within the surcharge influence zone.

Retaining Wall Drainage

All retaining walls shall be provided with a subdrain system in order to minimize the potential for future hydrostatic pressure buildup behind the proposed retaining walls. Subdrains may consist of four-inch diameter perforated pipes, placed with perforations facing down. The pipe shall be encased in at least one-foot of gravel around the pipe. The gravel shall be wrapped in filter fabric. The gravel may consist of three-quarter inch to one inch crushed rocks.

As an alternative to the standard perforated subdrain pipe and gravel drainage system, the use of gravel pockets and weepholes is an acceptable drainage method. Weepholes shall be a minimum of 2 inches in diameter, placed at 8 feet on center along the base of the wall. Gravel pockets shall be a minimum of 1 cubic foot in dimension, and may consist of three-quarter inch to one inch crushed rocks, wrapped in filter fabric. A collector pipe shall be installed to direct collected waters to a sump

Certain types of subdrain pipe are not acceptable to the various municipal agencies, it is recommended that prior to purchasing subdrainage pipe, the type and brand is cleared with the proper municipal agencies. Subdrainage pipes should outlet to an acceptable location. Some municipalities do not allow the use of flat-drainage products, such as Miradrain. The use of such a product should be researched with the building official.

The lateral earth pressures recommended above for retaining walls assume that a permanent drainage system will be installed so that external water pressure will not be developed against the walls. If a drainage system is not provided, the walls should be designed to resist an external hydrostatic pressure due to water in addition to the lateral earth pressure. In any event, it is recommended that retaining walls be waterproofed.

Sump Pump Design

The purpose of the recommended retaining wall backdrainage system is to relieve hydrostatic pressure. According to the Seismic Hazard Zone Report of the Venice 7½-Minute Quadrangle (CDMG, 1998, Revised 2006), the historically highest groundwater level for the site was approximately 14 feet below the existing ground surface. Groundwater was encountered during exploration at depths ranging between 35 and 37 feet below the existing site grade during exploration.

It is anticipated that the proposed retaining walls will not extend below the historically highest or the current groundwater levels. Therefore the only water which could affect the proposed retaining walls would be irrigation water and precipitation. Additionally, the proposed site grading is such that all drainage is directed to the street and the structure has been designed with adequate non-erosive drainage devices. Based on these considerations the retaining wall backdrainage system is not expected to experience an appreciable flow of water, and in particular, no groundwater will affect it. However, for the purposes of design, a flow of 5 gallons per minute may be assumed.

In the event that the proposed underground retaining walls will extend deeper than anticipated, this office shall be contacted so the appropriate recommendations are provided.

Waterproofing

Moisture affecting retaining walls is one of the most common post construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water inside the building. Efflorescence is a process in which a powdery substance is produced on the surface of the concrete by the evaporation of water. The white powder usually consists of soluble salts such as gypsum, calcite, or common salt. Efflorescence is common to retaining walls and does not affect their strength or integrity.

It is recommended that retaining walls be waterproofed. Waterproofing design and inspection of its installation is not the responsibility of the geotechnical engineer. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection to below grade walls.

Retaining Wall Backfill

Any required backfill should be mechanically compacted in layers not more than 8 inches thick, to at least 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) relative compaction, obtainable by the most recent revision of ASTM D 1557 method of compaction. Flooding should not be permitted. Compaction within 5 feet, measured horizontally, behind a retaining structure should be achieved by use of light weight, hand operated compaction equipment.

Proper compaction of the backfill will be necessary to reduce settlement of overlying walks and paving. Some settlement of required backfill should be anticipated, and any utilities supported therein should be designed to accept differential settlement.

TEMPORARY EXCAVATIONS

Excavations up to a depth of 16 feet below the existing grade may be anticipated for construction of the proposed subterranean parking level and foundation elements. The excavations are expected to expose fill and dense native soils, which are suitable for vertical excavations up to 5 feet where not surcharged by adjacent traffic or structures. Vertical excavations exceeding 5 feet, or excavations which will be surcharged by adjacent traffic or structures should be shored.

Where sufficient space is available, temporary unsurcharged embankments could be cut at a uniform 1:1 slope gradient to a maximum depth of 16 feet. A uniform sloped excavation is sloped from bottom to top and does not have a vertical component.

Where sloped embankments are utilized, the tops of the slopes should be barricaded to prevent vehicles and storage loads near the top of slope within a horizontal distance equal to the depth of the excavation. If the temporary construction embankments are to be maintained during the rainy season, berms are strongly recommended along the tops of the slopes to prevent runoff water from entering the excavation and eroding the slope faces. Water should not be allowed to pond on top of the excavation nor to flow towards it.

Excavation Observations

It is critical that the soils exposed in the cut slopes are observed by a representative of Geotechnologies, Inc. during excavation so that modifications of the slopes can be made if variations in the geologic material conditions occur. Many building officials require that temporary excavations should be made during the continuous observations of the geotechnical engineer. All excavations should be stabilized within 30 days of initial excavation.

SHORING DESIGN

The following information on the design and installation of the shoring is as complete as possible at this time. It is suggested that Geotechnologies, Inc. review the final shoring plans and specifications prior to bidding or negotiating with a shoring contractor.

One method of shoring would consist of steel soldier piles, placed in drilled holes and backfilled with concrete. The soldier piles may be designed as cantilevers or laterally braced utilizing drilled tied-back anchors or raker braces.

Soldier Piles

Drilled cast-in-place soldier piles should be placed no closer than 2 diameters on center. The minimum diameter of the piles is 18 inches. Structural concrete should be used for the soldier

piles below the excavation; lean-mix concrete may be employed above that level. As an alternative, lean-mix concrete may be used throughout the pile where the reinforcing consists of a wideflange section. The slurry must be of sufficient strength to impart the lateral bearing pressure developed by the wideflange section to the earth materials. For design purposes, an allowable passive value for the earth materials below the bottom plane of excavation may be assumed to be 500 pounds per square foot per foot. To develop the full lateral value, provisions should be implemented to assure firm contact between the soldier piles and the undisturbed earth materials.

The frictional resistance between the soldier piles and retained geologic material may be used to resist the vertical component of the anchor load. The coefficient of friction may be taken as 0.40 based on uniform contact between the steel beam and lean-mix concrete and retained earth. The portion of soldier piles below the plane of excavation may also be employed to resist the downward loads. The downward capacity may be determined using a frictional resistance of 500 pounds per square foot. The minimum depth of embedment for shoring piles is 5 feet below the bottom of the footing excavation or 5 feet below the bottom of excavated plane whichever is deeper.

Soldier Pile Installation below Groundwater

Groundwater was encountered during exploration at depths between 35 and 37 feet below the existing site grade. If the proposed soldier beams will extend into the existing water level, caving of the saturated earth materials below the groundwater level may occur during drilling of piles. Casing or polymer drilling fluid will most likely be required during drilling in order to maintain open shafts. If casing is used, extreme care should be employed so that the pile is not pulled apart as the casing is withdrawn. At no time should the distance between the surface of the concrete and the bottom of the casing be less than 5 feet.

Piles placed below the water level will require the use of a tremie to place the concrete into the bottom of the hole. A tremie shall consist of a water-tight tube having a diameter of not less than 6 inches with a hopper at the top. The tube shall be equipped with a device that will close the discharge end and prevent water from entering the tube while it is being charged with concrete. The tremie shall be supported so as to permit free movement of the discharge end over the entire top surface of the work and to permit rapid lowering when necessary to retard or stop the flow of concrete. The discharge end shall be closed at the start of the work to prevent water entering the tube and shall be entirely sealed at all times, except when the concrete is being placed. The tremie tube shall be kept full of concrete. The flow shall be continuous until the work is completed and the resulting concrete seal shall be monolithic and homogeneous. The tip of the tremie tube shall always be kept about five feet below the surface of the concrete and definite steps and safeguards should be taken to insure that the tip of the tremie tube is never raised above the surface of the concrete.

A special concrete mix should be used for concrete to be placed below water. The design shall provide for concrete with a strength of 1,000 psi over the initial job specification. An admixture that reduces the problem of segregation of paste/aggregates and dilution of paste shall be included. The slump shall be commensurate to any research report for the admixture, provided that it shall also be the minimum for a reasonable consistency for placing when water is present.

Lagging

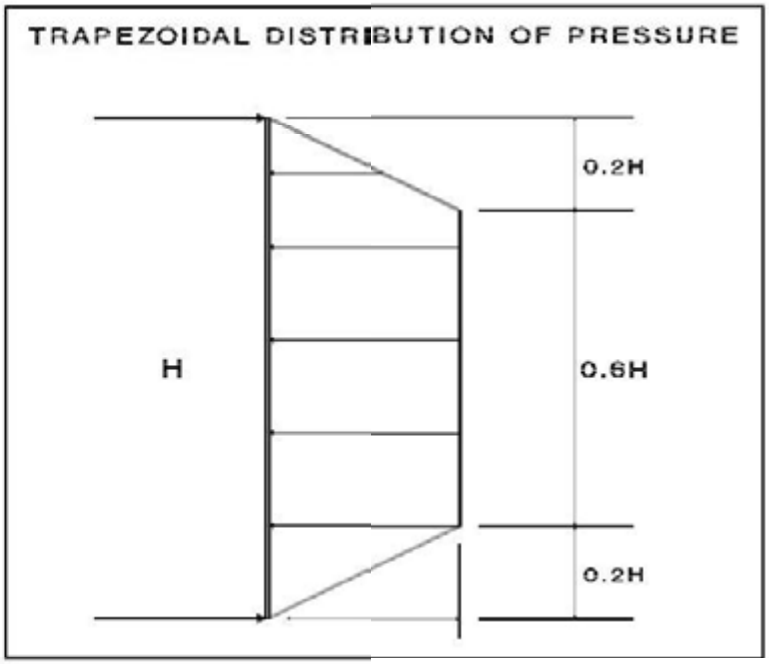
Soldier piles and anchors should be designed for the full anticipated pressures. Due to arching in the geologic materials, the pressure on the lagging will be less. It is recommended that the lagging should be designed for the full design pressure, but should be limited to a maximum of 400 pounds per square foot. It is recommended that a representative of this firm observe the installation of lagging to insure uniform support of the excavated embankment.

Lateral Pressures

Cantilevered shoring supporting a level backslope may be designed utilizing a triangular distribution of pressure as indicated in the following table:

HEIGHT OF SHORING "H" (feet)	EQUIVALENT FLUID PRESSURE (pounds per cubic foot)
Up to 16	28

A trapezoidal distribution of lateral earth pressure would be appropriate where shoring is to be restrained at the top by bracing or tie backs, with the trapezoidal distribution as shown in the diagram below.



Restrained shoring supporting a level backslope may be designed utilizing a trapezoidal distribution of pressure as indicated in the following table:

HEIGHT OF SHORING "H" (feet)	DESIGN SHORING FOR (Where H is the height of the wall)
Up to 16	18H

Where a combination of sloped embankment and shoring is utilized, the pressure will be greater and must be determined for each combination. Additional active pressure should be applied where the shoring will be surcharged by adjacent traffic or structures.

Tied-Back Anchors

Tied-back anchors may be used to resist lateral loads. Friction anchors are recommended. For design purposes, it may be assumed that the active wedge adjacent to the shoring is defined by a plane drawn 35 degrees with the vertical through the bottom plane of the excavation. Friction anchors should extend a minimum of 20 feet beyond the potentially active wedge. Anchors should be placed at least 6 feet on center to be considered isolated.

Drilled friction anchors constructed without utilizing pressure-grouting techniques may be designed for a skin friction of 500 pounds per square foot. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads. Where belled anchors are utilized, the capacity of belled anchors may be designed by applying the skin friction over the surface area of the bonded anchor shaft. The diameter of the bell may be utilized as the diameter of the bonded anchor shaft when determining the surface area. This implies that in order for the belled anchor to fail, the entire parallel soil column must also fail.

Depending on the techniques utilized, and the experience of the contractor performing the installation, it is anticipated that a skin friction of 2,000 pounds per square foot could be utilized for post-grouted anchors, provided the design does not rely on end-bearing plates to provide the necessary capacity. Only the frictional resistance developed beyond the active wedge would be effective in resisting lateral loads.

Anchor Installation

Tied-back anchors may be installed between 20 and 45 degrees below the horizontal. Where caving of the anchor shafts is experienced, the following provisions should be implemented in order to minimize such caving. The anchor shafts should be filled with concrete by pumping from the tip out, and the concrete should extend from the tip of the anchor to the active wedge. In order to minimize the chances of caving, it is recommended that the portion of the anchor shaft within the active wedge be backfilled with sand before testing the anchor. This portion of the shaft should be filled tightly and flush with the face of the excavation. The sand backfill should be placed by pumping; the sand may contain a small amount of cement to facilitate pumping.

Tieback Anchor Testing

At least 10 percent of the anchors should be selected for "Quick", 200 percent tests. It is recommended that at least three of these anchors be selected for 24-hour, 200 percent tests. It is recommended that the 24-hour tests be performed prior to installation of additional tiebacks. The purpose of the 200 percent tests is to verify the friction value assumed in design. The anchors should be tested to develop twice the assumed friction value. Where satisfactory tests are not achieved on these initial anchors, the anchor diameter and/or length should be increased until satisfactory test results are obtained.

The total deflection during the 24-hour 200 percent test should not exceed 12 inches. During the 24-hour tests, the anchor deflection should not exceed 0.75 inches measured after the 200 percent test load is applied.

For the "quick" 200 percent tests, the 200 percent test load should be maintained for 30 minutes. The total deflection of the anchor during the 200 percent quick tests should not exceed 12 inches; the deflection after the 200 percent load has been applied should not exceed 0.25 inch during the 30-minute period.

All of the remaining anchors should be tested to at least 150 percent of design load. The total deflection during the 150 percent test should not exceed 12 inches. The rate of creep under the 150 percent test load should not exceed 0.1 inch over a 15 minute period in order for the anchor to be approved for the design loading.

After a satisfactory test, each anchor should be locked-off at the design load. This should be verified by rechecking the load in the anchor. The load should be within 10 percent of the design load. Where satisfactory tests are not attained, the anchor diameter and/or length should be increased or additional anchors installed until satisfactory test results are obtained. Where post-grouted anchors are utilized, additional post-grouting may be required. The installation and testing of the anchors should be observed by a representative of the soils engineer.

Internal Bracing

Rakers may be utilized to brace the soldier piles in lieu of tieback anchors. The raker bracing could be supported laterally by temporary concrete footings (deadmen) or by the permanent interior footings. An allowable bearing pressure of 4,000 pounds per square foot may be used for the design a raker foundations. This bearing pressure is based on a raker foundation a minimum of 24 inches in width and length as well as 24 inches in depth into native alluvial soils. The base of the raker foundations should be horizontal. Care should be employed in the positioning of raker foundations so that they do not interfere with the foundations for the proposed structure.

Deflection

It is difficult to accurately predict the amount of deflection of a shored embankment. It should be realized that some deflection will occur. It is recommended that shoring deflection be limited to ½ inch at the top of the shored embankment where a structure is within a 1:1 plane projected up from the base of the excavation. A maximum deflection of 1-inch has been allowed, provided there are no structures within a 1:1 plane drawn upward from the base of the excavation. If greater deflection occurs during construction, additional bracing may be necessary to minimize settlement of adjacent buildings and utilities in adjacent street and alleys. If desired to reduce the deflection, a greater active pressure could be used in the shoring design.

Monitoring

Because of the depth of the excavation, some means of monitoring the performance of the shoring system is suggested. The monitoring should consist of periodic surveying of the lateral and vertical locations of the tops of all soldier piles and the lateral movement along the entire lengths of selected soldier piles. Also, some means of periodically checking the load on selected anchors will be necessary, where applicable.

Some movement of the shored embankments should be anticipated as a result of the relatively deep excavation. It is recommended that photographs of the existing buildings on the adjacent properties be made during construction to record any movements for use in the event of a dispute.

Shoring Observations

It is critical that the installation of shoring is observed by a representative of Geotechnologies, Inc. Many building officials require that shoring installation should be performed during continuous observation of a representative of the geotechnical engineer. The observations insure

that the recommendations of the geotechnical report are implemented and so that modifications of the recommendations can be made if variations in the geologic material or groundwater conditions warrant. The observations will allow for a report to be prepared on the installation of shoring for the use of the local building official, where necessary.

SLABS ON GRADE

Concrete Slabs-on Grade

Concrete floor slabs should be a minimum of 5 inches in thickness. This assumes that the subterranean slab-on-grade will be built above the historically highest groundwater level (elevation 24.5 feet). Slabs-on-grade should be cast over undisturbed native alluvial soils or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum dry density.

Outdoor concrete flatwork should be a minimum of 4 inches in thickness. Outdoor concrete flatwork should be cast over undisturbed native alluvial soils or properly controlled fill materials. Any geologic materials loosened or over-excavated should be wasted from the site or properly compacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) of the maximum dry density.

Design of Slabs That Receive Moisture-Sensitive Floor Coverings

Geotechnologies, Inc. does not practice in the field of moisture vapor transmission evaluation and mitigation. Therefore it is recommended that a qualified consultant be engaged to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction. The qualified consultant should provide recommendations for mitigation of potential adverse impacts of moisture vapor transmission on various components of the structure.

Where dampness would be objectionable, it is recommended that the floor slabs should be waterproofed. A qualified waterproofing consultant should be retained in order to recommend a product or method which would provide protection for concrete slabs-on-grade.

All concrete slabs-on-grade should be supported on vapor retarder. The design of the slab and the installation of the vapor retarder should comply with the most recent revisions of ASTM E 1643 and ASTM E 1745. The vapor retarder should comply with ASTM E 1745 Class A requirements.

Where a vapor retarder is used, a low-slump concrete should be used to minimize possible curling of the slabs. The barrier can be covered with a layer of trimmable, compactible, granular fill, where it is thought to be beneficial. Where a granular fill layer is used, this layer should be a minimum of 2 inches in thickness. See ACI 302.2R-32, Chapter 7 for information on the placement of vapor retarders and the use of a fill layer.

Concrete Crack Control

The recommendations presented in this report are intended to reduce the potential for cracking of concrete slabs-on-grade due to settlement. However even where these recommendations have been implemented, foundations, stucco walls and concrete slabs-on-grade may display some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete cracking may be reduced and/or controlled by limiting the slump of the concrete used, proper concrete placement and curing, and by placement of crack control joints at reasonable intervals, in particular, where re-entrant slab corners occur.

For standard control of concrete cracking, a maximum crack control joint spacing of 10 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended. The crack control joints should be installed as soon as

practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. Construction joints should be designed by a structural engineer.

Complete removal of the existing fill soils beneath outdoor flatwork such as walkways or patio areas, is not required, however, due to the rigid nature of concrete, some cracking, a shorter design life and increased maintenance costs should be anticipated. In order to provide uniform support beneath the flatwork it is recommended that a minimum of 12 inches of the exposed subgrade beneath the flatwork be scarified and recompacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) relative compaction.

Slab Reinforcing

Concrete slabs-on-grade should be reinforced with a minimum of #4 steel bars on 16-inch centers each way. Outdoor flatwork should be reinforced with a minimum of #3 steel bars on 18-inch centers each way.

PAVEMENTS

Prior to placing paving, the existing grade should be scarified to a depth of 12 inches, moistened as required to obtain optimum moisture content, and recompacted to 90 percent (or 95 percent for cohesionless soils having less than 15 percent finer than 0.005 millimeters) relative compaction, as determined by the most recent revision of ASTM D 1557. The client should be aware that removal of all existing fill in the area of new paving is not required, however, pavement constructed in this manner will most likely have a shorter design life and increased maintenance costs. The following pavement sections are recommended:

Service	Asphalt Pavement Thickness Inches	Base Course Inches
Passenger Car Traffic	3	4
Medium Truck Traffic	4	6

Concrete paving may also be utilized for the project. For concrete paving, the following sections are recommended:

Service	Concrete Pavement Thickness Inches	Base Course Inches
Passenger Car and Medium Truck Traffic	6	4

Aggregate base should be compacted to a minimum of 95 percent of the most recent revision of ASTM D 1557 laboratory maximum dry density. Base materials should conform to Sections 200-2.2 or 200-2.4 of the "Standard Specifications for Public Works Construction", (Green Book), latest edition.

For standard crack control maximum expansion joint spacing of 10 feet should not be exceeded. Lesser spacings would provide greater crack control. Joints at curves and angle points are recommended. Concrete pavement should be reinforced with a minimum of #3 steel bars on 18-inch centers each way.

The performance of pavement is highly dependent upon providing positive surface drainage away from the edges. Ponding of water on or adjacent to pavement can result in saturation of the subgrade materials and subsequent pavement distress. If planter islands are planned, the perimeter curb should extend a minimum of 12 inches below the bottom of the aggregate base.

SITE DRAINAGE

Proper surface drainage is critical to the future performance of the project. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Proper site drainage should be maintained at all times.

All site drainage, with the exception of any required to disposed of onsite by stormwater regulations, should be collected and transferred to the street in non-erosive drainage devices. The proposed structure should be provided with roof drainage. Discharge from downspouts, roof drains and scuppers should not be permitted on unprotected soils within five feet of the building perimeter. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. Drainage should not be allowed to flow uncontrolled over any descending slope. Planters which are located within a distance equal to the depth of a retaining wall should be sealed to prevent moisture adversely affecting the wall. Planters which are located within five feet of a foundation should be sealed to prevent moisture affecting the earth materials supporting the foundation.

STORMWATER DISPOSAL

Recently regulatory agencies have been requiring the disposal of a certain amount of stormwater generated on a site by infiltration into the site soils. Increasing the moisture content of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. This means that any overlying structure, including buildings, pavements and concrete flatwork, could sustain damage due to saturation of the subgrade soils. Structures serviced by subterranean levels could be adversely impacted by stormwater disposal by increasing the design fluid pressures on retaining walls and causing leaks in the walls. Proper site drainage is critical to the performance of any structure in the built environment.

Percolation testing of the on-site soils was not conducted as part of this investigation. It is anticipated that the proposed structure will extend adjacent to the property lines, which would not allow for the required horizontal offset distance between shallow infiltration systems and structures or property lines. Based on the anticipated depth of the proposed structure, the current groundwater level, and the required minimum vertical offset of 10 feet between the current groundwater level and the bottom of infiltration systems, the disposal of stormwater by means of

a deep drywell system would saturate the soils located within the primary zone of foundation influence. Saturation of these soils is not recommended because it would result in a change in their engineering properties.

Based on the above considerations, it is the opinion of this firm that the disposal of stormwater by infiltration into the onsite soils is not suitable for the proposed project.

Where infiltration of stormwater into the subgrade soils is not advisable, most Building Officials have allowed the stormwater to be filtered through soils in planter areas. Once the water has been filtered through a planter it may be released into the storm drain system. It is recommended that overflow pipes are incorporated into the design of the discharge system in the planters to prevent flooding. In addition, the planters shall be sealed and waterproofed to prevent leakage. Please be advised that adverse impact to landscaping and periodic maintenance may result due to excessive water and contaminants discharged into the planters.

It is recommended that the design team (including the structural engineer, waterproofing consultant, plumbing engineer, and landscape architect) be consulted in regards to the design and construction of filtration systems.

DESIGN REVIEW

Engineering of the proposed project should not begin until approval of the geotechnical report by the Building Official is obtained in writing. Significant changes in the geotechnical recommendations may result during the building department review process.

It is recommended that the geotechnical aspects of the project be reviewed by this firm during the design process. This review provides assistance to the design team by providing specific recommendations for particular cases, as well as review of the proposed construction to evaluate whether the intent of the recommendations presented herein are satisfied.

CONSTRUCTION MONITORING

Geotechnical observations and testing during construction are considered to be a continuation of the geotechnical investigation. It is critical that this firm review the geotechnical aspects of the project during the construction process. Compliance with the design concepts, specifications or recommendations during construction requires review by this firm during the course of construction. All foundations should be observed by a representative of this firm prior to placing concrete or steel. Any fill which is placed should be observed, tested, and verified if used for engineered purposes. Please advise Geotechnolcgies, Inc. at least twenty-four hours prior to any required site visit.

If conditions encountered during construction appear to differ from those disclosed herein, notify Geotechnologies, Inc. immediately so the need for modifications may be considered in a timely manner.

It is the responsibility of the contractor to ensure that all excavations and trenches are properly sloped or shored. All temporary excavations should be cut and maintained in accordance with applicable OSHA rules and regulations.

EXCAVATION CHARACTERISTICS

The exploration performed for this investigation is limited to the geotechnical excavations described. Direct exploration of the entire site would not be economically feasible. The owner, design team and contractor must understand that differing excavation and drilling conditions may be encountered based on boulders, gravel, oversize materials, groundwater and many other conditions. Fill materials, especially when they were placed without benefit of modern grading codes, regularly contain materials which could impede efficient grading and drilling. Southern California sedimentary bedrock is known to contain variable layers which reflect differences in depositional environment. Such layers may include abundant gravel, cobbles and boulders.

Similarly bedrock can contain concretions. Concretions are typically lenticular and follow the bedding. They are formed by mineral deposits. Concretions can be very hard. Excavation and drilling in these areas may require full size equipment and coring capability. The contractor should be familiar with the site and the geologic materials in the vicinity.

CLOSURE AND LIMITATIONS

The purpose of this report is to aid in the design and completion of the described project. Implementation of the advice presented in this report is intended to reduce certain risks associated with construction projects. The professional opinions and geotechnical advice contained in this report are sought because of special skill in engineering and geology and were prepared in accordance with generally accepted geotechnical engineering practice. Geotechnologies, Inc. has a duty to exercise the ordinary skill and competence of members of the engineering profession. Those who hire Geotechnologies, Inc. are not justified in expecting infallibility, but can expect reasonable professional care and competence.

The recommendations of this report pertain only to the site investigated and are based upon the assumption that the geologic conditions do not deviate from those disclosed in the investigation. If any variations are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geotechnologies, Inc. should be notified so that supplemental recommendations can be prepared.

This report is issued with the understanding that it is the responsibility of the owner, or the owner's representatives, to ensure that the information and recommendations contained herein are brought to the attention of the project architect and engineer and are incorporated into the plans. The owner is also responsible to see that the contractor and subcontractors carry out the geotechnical recommendations during construction.

The findings of this report are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside control of this firm. Therefore, this report is subject to review and should not be relied upon after a period of three years.

Geotechnical observations and testing during construction is considered to be a continuation of the geotechnical investigation. It is, therefore, most prudent to employ the consultant performing the initial investigative work to provide observation and testing services during construction. This practice enables the project to flow smoothly from the planning stages through to completion.

Should another geotechnical firm be selected to provide the testing and observation services during construction, that firm should prepare a letter indicating their assumption of the responsibilities of geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for review. The letter should acknowledge the concurrence of the new geotechnical engineer with the recommendations presented in this report.

EXCLUSIONS

Geotechnologies, Inc. does not practice in the fields of methane gas, radon gas, environmental engineering, waterproofing, dewatering organic substances or the presence of corrosive soils or wetlands which could affect the proposed development including mold and toxic mold. Nothing in this report is intended to address these issues and/or their potential effect on the proposed development. A competent professional consultant should be retained in order to address environmental issues, waterproofing, organic substances and wetlands which might effect the proposed development.

GEOTECHNICAL TESTING

Classification and Sampling

The soil is continuously logged by a representative of this firm and classified by visual examination in accordance with the Unified Soil Classification system. The field classification is verified in the laboratory, also in accordance with the Unified Soil Classification System. Laboratory classification may include visual examination, Atterberg Limit Tests and grain size distribution. The final classification is shown on the excavation logs.

Samples of the geologic materials encountered in the exploratory excavations were collected and transported to the laboratory. Undisturbed samples of soil are obtained at frequent intervals. Unless noted on the excavation logs as an SPT sample, samples acquired while utilizing a hollow-stem auger drill rig are obtained by driving a thin-walled, California Modified Sampler with successive 30-inch drops of a 140-pound hammer. The soil is retained in brass rings of 2.50 inches outside diameter and 1.00 inch in height. The central portion of the samples are stored in close fitting, waterproof containers for transportation to the laboratory. Samples noted on the excavation logs as SPT samples are obtained in general accordance with the most recent revision of ASTM D 1586. Samples are retained for 30 days after the date of the geotechnical report.

Moisture and Density Relationships

The field moisture content and dry unit weight are determined for each of the undisturbed soil samples, and the moisture content is determined for SPT samples in general accordance with the most recent revision of ASTM D 4959 or ASTM D 4643. This information is useful in providing a gross picture of the soil consistency between exploration locations and any local variations. The dry unit weight is determined in pounds per cubic foot and shown on the "Excavation Logs", A-Plates. The field moisture content is determined as a percentage of the dry unit weight.

Direct Shear Testing

Shear tests are performed in general accordance with the most recent revision of ASTM D 3080 with a strain controlled, direct shear machine manufactured by Soil Test, Inc. or a Direct Shear Apparatus manufactured by GeoMatic, Inc. The rate of deformation is approximately 0.025 inches per minute. Each sample is sheared under varying confining pressures in order to determine the Mohr-Coulomb shear strength parameters of the cohesion intercept and the angle of internal friction. Samples are generally tested in an artificially saturated condition. Depending upon the sample location and future site conditions, samples may be tested at field moisture content. The results are plotted on the 'Shear Test Diagram," B-Plates.

The most recent revision of ASTM 3080 limits the particle size to 10 percent of the diameter of the direct shear test specimen. The sheared sample is inspected by the laboratory technician running the test. The inspection is performed by splitting the sample along the sheared plane and observing the soils exposed on both sides. Where oversize particles are observed in the shear plane, the results are discarded and the test run again with a fresh sample.

Consolidation Testing

Settlement predictions of the soil's behavior under load are made on the basis of the consolidation tests in general accordance with the most recent revision of ASTM D 2435. The consolidation apparatus is designed to receive a single one-inch high ring. Loads are applied in several increments in a geometric progression, and the resulting deformations are recorded at selected time intervals. Porous stones are placed in contact with the top and bottom of each specimen to permit addition and release of pore fluid. Samples are generally tested at increased moisture content to determine the effects of water on the bearing soil. The normal pressure at which the water is added is noted on the drawing. Results are plotted on the "Consolidation Test," C-Plates.

Expansion Index Testing

The expansion tests performed on the remolded samples are in accordance with the Expansion Index testing procedures, as described in the most recent revision of ASTM D 4829. The soil sample is compacted into a metal ring at a saturation degree of 50 percent. The ring sample is then placed in a consolidometer, under a vertical confining pressure of 1 lbf/square inch and inundated with distilled water. The deformation of the specimen is recorded for a period of 24 hour or until the rate of deformation becomes less than 0.0002 inches/hour, whichever occurs first. The expansion index, EI, is determined by dividing the difference between final and initial height of the ring sample by the initial height, and multiplied by 1,000. Results are presented on Plate D of this report.

Laboratory Compaction Characteristics

The maximum dry unit weight and optimum moisture content of a soil are determined in general accordance with the most recent revision of ASTM D 1557. A soil at a selected moisture content is placed in five layers into a mold of given dimensions, with each layer compacted by 25 blows of a 10 pound hammer dropped from a distance of 18 inches subjecting the soil to a total compactive effort of about 56,000 pounds per cubic foot. The resulting dry unit weight is determined. The procedure is repeated for a sufficient number of moisture contents to establish a relationship between the dry unit weight and the water content of the soil. The data when plotted represent a curvilinear relationship known as the compaction curve. The values of optimum moisture content and modified maximum dry unit weight are determined from the compaction curve.

Grain Size Distribution

These tests cover the quantitative determination of the distribution of particle sizes in soils. Sieve analysis is used to determine the grain size distribution of the soil larger than the Number 200 sieve.

General accordance with the most recent revision of ASTM D 422 is used to determine particle sizes smaller than the Number 200 sieve. A hydrometer is used to determine the distribution of particle sizes by a sedimentation process. The grain size distributions are plotted on the E-Plates presented in the Appendix of this report.

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Attachment O

Bus Transit Schedules

Route Map

1 Washington Blvd.

1 Washington Blvd.

Monday - Friday Lunes - Viernes

EFFECTIVE JANUARY 3, 2022

Westbound Oeste

WLATC Washington & Fairfax	Washington/ Expo Line	Washington & Overland	Washington & Sepulveda	Washington & Inglewood	Washington & Lincoln	Venice Beach Windward & Main
6:00AM	6:04AM	6:10AM	6:13AM	6:18AM	6:23AM	6:30AM
6:20	6:24	6:30	6:33	6:38	6:43	6:50
6:37	6:41	6:47	6:50	6:55	7:03	7:10
6:55	6:59	7:05	7:08	7:13	7:21	7:28
7:10	7:14	7:19	7:22	7:27	7:35	7:42
7:25	7:29	7:34	7:37	7:42	7:50	7:57
7:40	7:44	7:49	7:52	7:57	8:05	8:12
7:54	7:58	8:03	8:07	8:12	8:20	8:27
8:08	8:12	8:17	8:21	8:26	8:34	8:41
8:22	8:26	8:31	8:35	8:40	8:48	8:55
8:37	8:41	8:46	8:50	8:55	9:03	9:10
8:52	8:56	9:01	9:05	9:10	9:18	9:25
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9:21	9:25	9:30	9:34	9:39	9:48	9:56
9:38	9:42	9:47	9:51	9:56	10:05	10:13
9:56	10:00	10:07	10:11	10:16	10:25	10:33
10:14	10:18	10:25	10:29	10:34	10:44	10:52
10:33	10:37	10:44	10:48	10:53	11:03	11:11
10:53	10:57	11:04	11:08	11:13	11:23	11:31
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6:52	**7:01**	**7:09**	**7:12**	**7:16**	**7:21**	**7:28**
7:11	**7:20**	**7:28**	**7:31**	**7:35**	**7:40**	**7:44**
7:35	**7:44**	**7:52**	**7:55**	**7:59**	**8:04**	**8:08**
8:05	**8:14**	**8:22**	**8:25**	**8:29**	**8:34**	**8:38**
8:35	**8:42**	**8:49**	**8:52**	**8:56**	**9:01**	**9:05**
9:05	**9:12**	**9:19**	**9:22**	**9:26**	**9:31**	**9:35**
9:35	**9:42**	**9:49**	**9:52**	**9:56**	**10:01**	**10:05**
10:34	**10:41**	**10:47**	**10:50**	**10:54**	**10:59**	**11:03**
-	-	-	-	-	-	-

LINE 1 EFFECTIVE DATES: JANUARY 3, 2022

Times are approximate and may vary due to traffic and weather conditions. Times shown are subject to change without notice.

Los tiempos son aproximados y pueden variar debido a tráfico y condiciones de clima. Los tiempos demostrados son conforme a c bio sin aviso.

For the safety, comfort and convenience of all passengers...

Culver CityBus Operators will not open the front doors after pulling away from bus stops. Please offer priority seating, at the front of the bus, to senior and disabled passengers. We DO NOT allow smoking, eating, drinking, or surfboards on the bus. All radios, games, cell phones and other electronic devices shall be listened to through earphones only. Shirt and shoes shall be worn while on-board. Carts, strollers and boogie boards may be brought on-board and shall be stored out of the aisle. For your convenience, all Culver CityBuses are equipped with bike racks.

Transfers

You will need to purchase a Local Transfer when transferring from one Culver CityBus to another Culver CityBus and an Inter-Agency Transfer (IAT) when connecting to any other bus or rail system. Please inform the operator when boarding if you need a Local or Inter-Agency Transfer. Transfers are valid for two (2) hours and must be properly punched.

Holidays

Limited bus service is provided on Lines 1, 3 and local 6 on the following holidays:

New Year's Day	Independence Day	Thanksgiving Day
Memorial Day	Labor Day	Christmas Day

Culver CityBus Office

4343 Duquesne Ave, Culver City, CA 90232
Monday – Friday • 7:30 am – 5:30 pm

Automated Schedule Information:	(310) 253-6510
Lost & Found, Commendations & Complaints:	(310) 253-6500
Connecting Agencies' Schedule Information:	(323) 466-3876

Para la seguridad, comodidad y conveniencia de todos los pasajeros...

Los operadores de Culver CityBus no abrirán las puertas principales después de alejarse de la parada. Favor de ofrecer los asientos de prioridad en frente del autobús a las personas mayores o discapacitadas. No se permite fumar, comer, beber o las tablas hawaianas en el autobús. Todos los radios, juegos, teléfonos celulares y otros dispositivos electrónicos deberán ser escuchados a través de audífonos solamente. Camisa y zapatos deberán ser usados mientras este a bordo del autobús. Los carros de compras, cochecitos de niños y las tablas de boogie se pueden traer a bordo y deberán ser almacenados fuera del pasillo. Para su conveniencia todos los autobuses de Culver CityBus están equipados con estantes para bicicletas.

Transbordos

Usted necesitará comprar un Transbordo Local para transbordar de un Culver CityBus a otro Culver Citybus y un Transbordo Entre-Agencia (IAT) para conectar con cualquier otra agencia o sistema ferroviario. Si usted necesita un Transbordo Local o Entre-Agencia, favor de informarle al operador al abordar. Los transbordos son válidos por dos horas y deben ser perforados correctamente.

Bus Fares Tarifas

Blind - Free Ciegos - Gratis	Base Fare Tarifa Regular	Student (K-12) Estudiante (K-12)	Senior (62+ yrs.) Disabled/Medicare Mayores (+62 años) / Discapacitados
Fare / Tarifas	**1.00**	**75¢**	**35¢**
Local Transfer (Culver CityBus - Culver CityBus) Transbordo Local	**25¢**	**25¢**	**10¢**
Inter-Agency Transfer Transbordo Entre-Agencia	**40¢**	**40¢**	**20¢**

Culver CityBus fareboxes accept dollar bills, coins, EZ transit passes and TAP; however, they DO NOT make change. Las cajas de tarifa de Culver CityBus aceptan billetes de dólar, monedas, EZ transit passes y TAP. Sin embargo, no dan cambio.

Senior citizens 62 and over, disabled, or Medicare recipients must show their ID in order to pay a reduced fare. Mayores de edad +62, discapacitados y beneficiarios de Medicare deben demostrar su identificación para pagar la tarida reducida.

High School Students may be required to show their student ID as proof of age. Puede requerirse que estudiantes de escuela preparatoria muestren su identificación para prueba de edad.

Culver CITYBUS 1

Washington Blvd.

- West LA Transit Center
- Expo Culver City
- Culver City City Hall
- Venice Beach

Printed January 2022

Effective January 3, 2022

2 Inglewood Blvd.

Monday - Friday Lunes - Viernes

Westbound Oeste

Bristol Pkwy/ Centinela	Slauson/ Sepulveda	Washington/ Inglewood	Venicee High School
6:00AM	6:03AM	6:13AM	6:23AM
7:00	7:05	7:20	7:36
8:10	8:15	8:32	8:48
9:20	9:25	9:35	9:51
2:35PM	**2:39PM**	**2:49PM**	**3:05PM**
3:45	**3:49**	**4:01**	**4:17**
4:55	**4:59**	**5:11**	**5:27**

Eastbound Este

Venice High School	Washington/ Inglewood	Slauson/ Sepulveda	Bristol Pkwy/ Centinela
6:30AM	6:36AM	6:43AM	6:49AM
7:40	7:47	7:54	8:00
8:50	8:57	9:05	9:11
10:00	10:07	10:15	10:21
3:11PM	**3:20PM**	**3:31PM**	**3:38PM**
4:21	**4:30**	**4:42**	**4:50**
5:31	**5:40**	**5:52**	**6:00**

Sorry, no weekend or holiday service.
Lo sentimos, no hay servicio los fines de semana o días festivos.

Times are approximate and may vary due to traffic and weather conditions. Times shown are subject to change without notice. Los tiempos son aproximados y pueden variar debido a tráfico y condiciones de clima. Los tiempos demonstrados son conforme a cambio sin aviso.

Route Map
2 Inglewood Blvd.

For the safety, comfort and convenience of all passengers...

Culver CityBus Van Driver will not open the door after pulling away from bus stops. We DO NOT allow smoking, eating, drinking, or surfboards on the bus. All radios, games, cell phones and other electronic devices shall be listened to through earphones only. Shirt and shoes shall be worn while on-board. Bags, carts, and strollers may be brought on-board and shall be stored out of the aisle.

Para la seguridad, comodidad y conveniencia de todos los pasajeros...

Los operadores de Culver CityBus no abrirán las puertas principales después de alejarse de la parada. No se permite fumar, comer, beber en el autobús. Todos los radios, juegos, teléfonos celulares y otros dispositivos electrónicos deberán ser escuchados a través de audífonos solamente. Camisa y zapatos deberán ser usados mientras este a bordo del autobús. Bolsas, los carros de compras, paseante de niños se pueden traer a bordo y deberán ser almacenados fuera del pasillo.

Holidays

Limited service is provided for Line 1C1 during holidays:

New Year's Day	Memorial Day	Independence Day
Labor Day	Thanksgiving Day	Christmas Day

Culver City Transportation Department

4343 Duquesne Ave, Culver City 90232
Monday - Friday 7:30 am - 5:30 pm

Automated Schedule Information:	(310) 253-6510
Lost & Found, Commendations & Complaints:	(310) 253-6500
Connecting Agencies' Schedule Information:	(310) 466-3876

Line 1C1 Pilot Program

The Washington Blvd Culver City Downtown Circulator is a pilot program and is free of charge for all passengers. Free fare is part of the pilot program and is subject to change at anytime.

Line 1C1 Programa Piloto

El Circulador es un programa piloto que rinde servicio por la avenida Washington Blvd. al centro de Culver City. El servicio es gratuito para todo los pasajeros. La tarifa gratuita es sujetó a cambiar a cualquier momento.

Culver CityBus

Culver CityBus 1C1

Washington Blvd.

Culver City Downtown Circulator

- Culver City City Hall
- Expo E Line Culver City Station
- Arts District

www.culvercitybus.com

Printed November 2021

Effective November 20, 2021

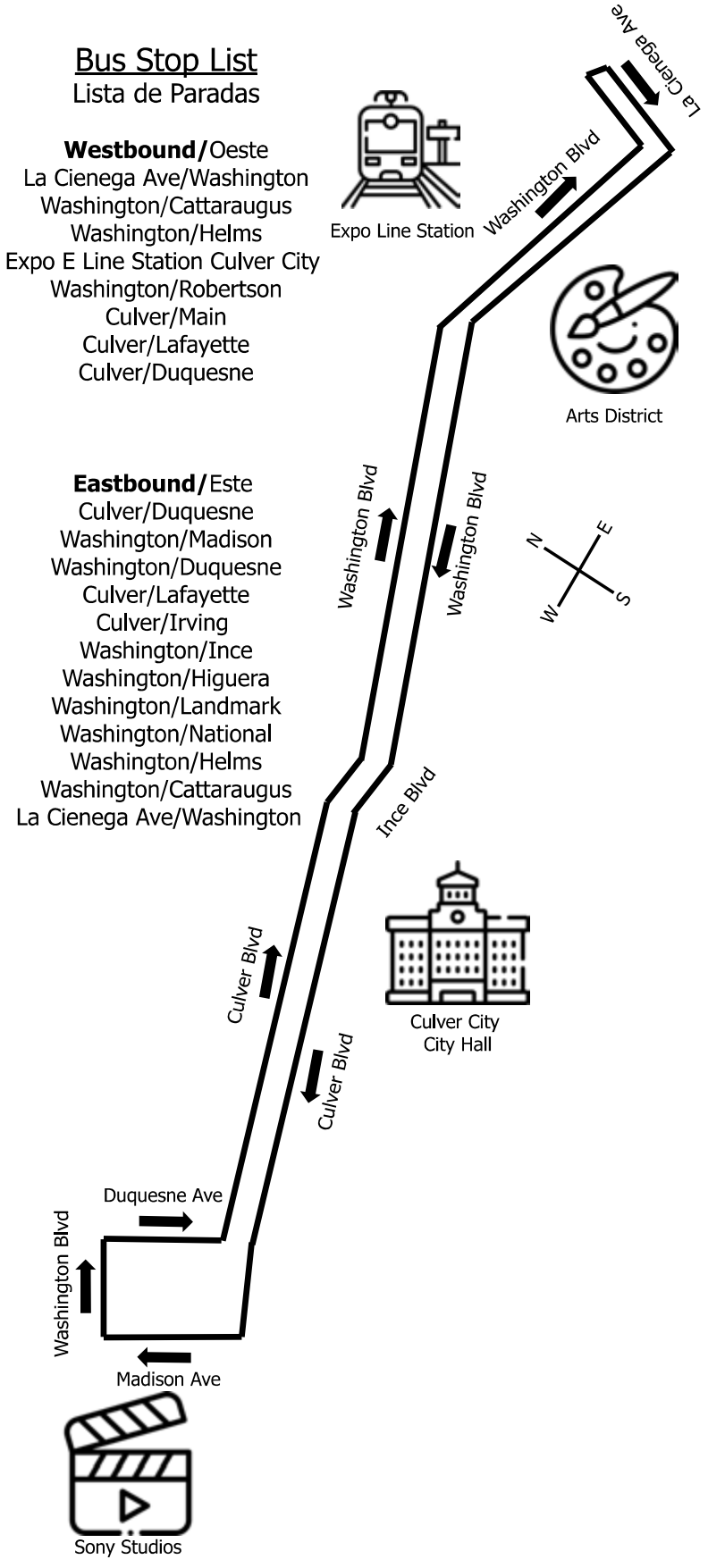
Line 1C1

Culver City Downtown Circulator

Bus Stop List
Lista de Paradas

Westbound/Oeste
La Cienega Ave/Washington
Washington/Cattaraugus
Washington/Helms
Expo E Line Station Culver City
Washington/Robertson
Culver/Main
Culver/Lafayette
Culver/Duquesne

Eastbound/Este
Culver/Duquesne
Washington/Madison
Washington/Duquesne
Culver/Lafayette
Culver/Irving
Washington/Ince
Washington/Higuera
Washington/Landmark
Washington/National
Washington/Helms
Washington/Cattaraugus
La Cienega Ave/Washington



Westbound
Hacia el Oeste - Saliendo del La Cienega/Washington

Weekday
Monday – Thursday 7:00 am-9:10 pm
Friday 7:00 am-10:10 pm

Weekday Frequency

7:00 am-9:00 am	Every 10 minutes
9:00 am-5:00 pm	Every 15 minutes
5:00 pm-7:30 pm	Every 10 minutes
After 7:30 pm	Every 15 minutes

Weekend & Holiday
Saturday 10:00 am-10:10 pm
Sunday 10:00 am-9:10 pm

Weekend Frequency
Every 15 minutes

Eastbound
Hacia el Este - Saliendo de Culver/Duquesne

Weekday
Monday – Thursday 7:00 am-9:10 pm
Friday 7:00 am-10:10 pm

Weekday Frequency

7:00 am-9:00 am	Every 10 minutes
9:00 am-5:00 pm	Every 15 minutes
5:00 pm-7:30 pm	Every 10 minutes
After 7:30 pm	Every 15 minutes

Weekend & Holiday
Saturday 10:00 am-10:10 pm
Sunday 10:00 am-9:10 pm

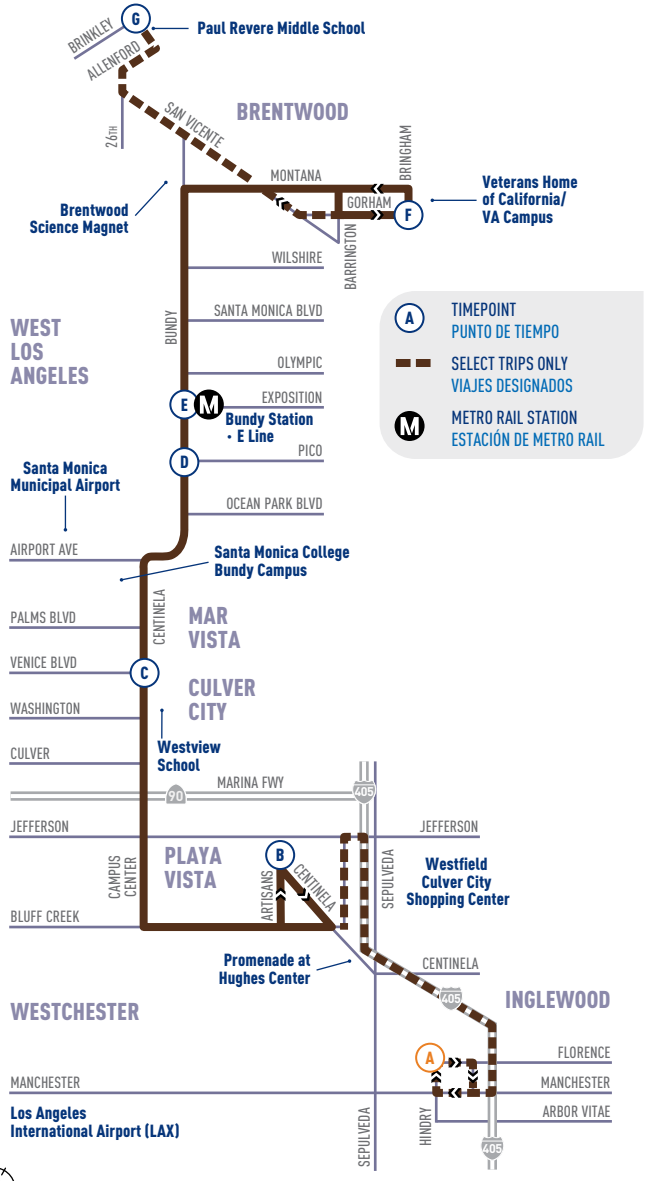
Weekend Frequency
Every 15 minutes

Times are approximate and may vary due to traffic and weather conditions. Times shown are subject to change without notice.

Los tiempos son aproximados y pueden variar debido a trafico y condiciones de clima. Los tiempos demostrados son conforme a cambio sin aviso.

CENTINELA AVE & BUNDY DR

14



NOT TO SCALE

EFFECTIVE DATE: MARCH 27, 2022

PLAYA VISTA TO BRENTWOOD

ARTISANS & CENTINELA (B)	CENTINELA & VENICE (C)	BUNDY & PICO (D)	BUNDY & EXPOSITION (BUNDY STATION) (E)	BRINGHAM & GORHAM (VETERANS HOME OF CALIFORNIA) (F)	PAUL REVERE MIDDLE SCHOOL (G)
5:15	5:24	5:29	5:31	5:43	-
5:29 (A)	5:47	5:52	5:54	6:03	-
5:58	6:07	6:13	6:15	6:28	-
5:58 (A)	6:19	6:25	6:27	6:38	-
6:19	6:28	6:34	6:36	6:49	-
6:18 (A)	6:45	6:51	6:53	-	◊ 7:19
6:44	6:57	7:04	7:07	-	◊ 7:33
6:40 (A)	7:07	7:13	7:15	-	◊ 7:41
7:07	7:22	7:30	7:33	7:47	-
7:22	7:37	7:45	7:48	8:02	-
7:37	7:52	8:00	8:03	8:17	-
7:52	8:07	8:15	8:18	8:32	-
8:07	8:22	8:30	8:33	8:47	-
8:22	8:37	8:45	8:48	9:02	-
8:37	8:49	8:55	8:58	9:11	-
8:52	9:04	9:10	9:13	9:26	-
9:07	9:19	9:25	9:28	9:41	-
9:27	9:39	9:45	9:48	10:01	-
9:47	9:59	10:05	10:08	10:21	-
10:04	10:16	10:22	10:25	10:38	-
10:22	10:34	10:40	10:43	10:56	-
10:40	10:52	10:58	11:01	11:14	-
10:58	11:10	11:16	11:19	11:32	-
11:16	11:28	11:34	11:37	11:50	-
11:34	11:46	11:52	11:55	**12:08**	-
11:52	**12:04**	**12:10**	**12:13**	**12:26**	-
12:10	**12:22**	**12:28**	**12:31**	**12:44**	-
12:30	**12:41**	**12:48**	**12:51**	**1:04**	-
12:50	**1:01**	**1:08**	**1:11**	**1:24**	-
1:10	**1:21**	**1:28**	**1:31**	**1:44**	-
1:30	**1:41**	**1:48**	**1:51**	**2:04**	-
1:50	**2:01**	**2:08**	**2:11**	**2:24**	-
THEN SERVICE EVERY 15 MINUTES UNTIL:					
5:50	**6:01**	**6:08**	**6:11**	**6:24**	-
6:10	**6:21**	**6:28**	**6:30**	**6:43**	-
6:30	**6:41**	**6:48**	**6:50**	**7:03**	-
6:50	**6:59**	**7:06**	**7:08**	**7:21**	-
7:10	**7:19**	**7:26**	**7:28**	**7:41**	-
7:30	**7:38**	**7:44**	**7:46**	**7:58**	-
7:50	**7:58**	**8:04**	**8:06**	**8:18**	-

TRIP DEPARTS FROM HINDRY AVE. AT FLORENCE AVE. (A) AT TIME SHOWN & DOES NOT SERVE ARTISANS WAY AT CENTINELA AVE.
VIAJE SALE DE HINDRY AVE. EN FLORENCE AVE. (A) A LA HORA QUE SE MUESTRA Y NO SIRVE A ARTISANS WAY Y CENTINELA AVE.

◊ SERVES STOP ON MONTANA AVE. AT BARRINGTON AVE. 15 MINUTES AFTER TIMEPOINT (E) ON BUNDY DR. AT EXPOSITION BLVD.
SIRVE LA PARADA EN MONTANA AVE. Y BARRINGTON AVE. 15 MINUTOS DESPUÉS DEL PUNTO DE TIEMPO (E) EN BUNDY DR. Y EXPOSITION BLVD.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

BRENTWOOD TO PLAYA VISTA

PAUL REVERE MIDDLE SCHOOL (G)	BRINGHAM & GORHAM (VETERANS HOME OF CALIFORNIA) (F)	BUNDY & EXPOSITION (BUNDY STATION) (E)	BUNDY & PICO (D)	CENTINELA & VENICE (C)	ARTISANS & CENTINELA (B)
-	5:48	5:57	5:58	6:04	6:14
-	6:06	6:15	6:16	6:22	6:32
-	6:21	6:30	6:31	6:37	6:47
-	6:36	6:45	6:46	6:52	7:02
-	6:50	7:00	7:01	7:07	7:20
-	7:05	7:15	7:16	7:22	7:35
-	7:20	7:30	7:31	7:37	7:50
-	7:36	7:46	7:47	7:53	8:06
-	7:52	8:02	8:03	8:09	8:22
THEN SERVICE EVERY 15 MINUTES UNTIL:					
-	9:07	9:17	9:18	9:24	9:37
-	9:23	9:33	9:34	9:40	9:53
THEN SERVICE EVERY 18 MINUTES UNTIL:					
-	11:29	11:39	11:40	11:46	11:59
-	11:47	11:57	11:59	**12:06**	**12:19**
-	**12:06**	**12:16**	**12:18**	**12:25**	**12:38**
-	**12:24**	**12:34**	**12:36**	**12:43**	**12:56**
-	**12:44**	**12:54**	**12:56**	**1:03**	**1:16**
12:37	**12:47**	**12:57**	**12:59**	**1:09**	**1:23**
12:42	**12:52**	**1:02**	**1:04**	**1:14**	**1:28**
-	**1:04**	**1:14**	**1:16**	**1:25**	**1:38**
-	**1:24**	**1:34**	**1:36**	**1:45**	**1:58**
-	**1:42**	**1:55**	**1:57**	**2:07**	**2:21**
-	**2:02**	**2:15**	**2:17**	**2:27**	**2:41**
-	**2:16**	**2:30**	**2:32**	**2:44**	**2:59**
2:15	**2:25**	**2:35**	**2:37**	**2:47**	**3:01**
-	**2:49**	**3:02**	**3:04**	**3:18**	**3:35**
2:43	**2:56**	**3:10**	**3:12**	**3:24**	**3:39**
-	**3:19**	**3:32**	**3:34**	**3:48**	**4:05**
-	**3:34**	**3:47**	**3:49**	**4:04**	**4:21**
3:22	**3:37**	**3:50**	**3:52**	**4:06**	**4:23**
-	**4:02**	**4:15**	**4:17**	**4:32**	**4:49**
3:55	**4:13**	**4:26**	**4:28**	**4:43**	**5:00**
-	**4:33**	**4:46**	**4:48**	**5:03**	**5:20**
-	**4:48**	**5:01**	**5:03**	**5:18**	**5:35**
-	**5:03**	**5:16**	**5:18**	**5:33**	**5:50**
-	**5:18**	**5:31**	**5:33**	**5:48**	**6:22** (A)
-	**5:35**	**5:46**	**5:48**	**6:01**	**6:16**
-	**5:50**	**6:01**	**6:03**	**6:16**	**6:31**
-	**6:06**	**6:18**	**6:19**	**6:32**	**6:46**
-	**6:25**	**6:35**	**6:36**	**6:46**	**7:20** (A)
-	**6:45**	**6:55**	**6:56**	**7:06**	**7:20**
-	**7:03**	**7:13**	**7:14**	**7:24**	**7:38**
-	**7:21**	**7:31**	**7:32**	**7:42**	**8:09** (A)
-	**7:41**	**7:51**	**7:52**	**8:02**	**8:29** (A)
-	**8:02**	**8:11**	**8:12**	**8:19**	**8:30**
	8:21	**8:30**	**8:31**	**8:37**	**8:48**

TRIP ENDS AT HINDRY AVE. AT FLORENCE AVE. (A) AT TIME SHOWN & DOES NOT SERVE ARTISANS WAY AT CENTINELA AVE.
VIAJE TERMINA EN HINDRY AVE. EN FLORENCE AVE. (A) EN LOS HORARIOS QUE SE MUESTRAN Y NO SIRVE A ARTISANS WAY Y CENTINELA AVE.

TRIP OPERATES ON EARLY DISMISSAL DAYS AT PAUL REVERE MIDDLE SCHOOL, EXCEPT DURING SUMMER.
VIAJE OPERA EN LOS DÍAS DE SALIDA TEMPRANA EN PAUL REVERE MIDDLE SCHOOL, EXCEPTO DURANTE EL VERANO.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

PLAYA VISTA TO BRENTWOOD

ARTISANS & CENTINELA (B)	CENTINELA & VENICE (C)	BUNDY & PICO (D)	BUNDY & EXPOSITION (BUNDY STATION) (E)	BRINGHAM & GORHAM (VETERANS HOME OF CALIFORNIA) (F)
5:54 (A)	6:15	6:21	6:22	6:32
6:30	6:40	6:46	6:47	6:57
6:43 (A)	7:05	7:11	7:12	7:22
7:20	7:31	7:38	7:39	7:50
7:45	7:56	8:03	8:04	8:15
8:10	8:21	8:28	8:29	8:40
8:35	8:46	8:53	8:54	9:05
9:00	9:11	9:18	9:19	9:30
9:25	9:37	9:44	9:46	9:58
9:45	9:57	10:04	10:06	10:18
10:05	10:17	10:24	10:26	10:38
10:25	10:37	10:44	10:46	10:58
10:45	10:57	11:04	11:06	11:18
11:05	11:17	11:24	11:26	11:38
11:25	11:37	11:44	11:46	11:58
11:45	11:57	**12:04**	**12:06**	**12:18**
12:05	**12:17**	**12:24**	**12:26**	**12:38**
12:20	**12:33**	**12:41**	**12:43**	**12:56**
12:37	**12:50**	**12:58**	**1:00**	**1:13**
12:54	**1:07**	**1:15**	**1:17**	**1:30**
1:11	**1:24**	**1:32**	**1:34**	**1:47**
1:29	**1:42**	**1:50**	**1:52**	**2:05**
1:47	**2:00**	**2:08**	**2:10**	**2:23**
2:05	**2:18**	**2:26**	**2:28**	**2:41**
2:23	**2:36**	**2:44**	**2:46**	**2:59**
2:41	**2:54**	**3:02**	**3:04**	**3:17**
2:59	**3:12**	**3:20**	**3:22**	**3:35**
3:17	**3:30**	**3:38**	**3:40**	**3:53**
3:35	**3:48**	**3:56**	**3:58**	**4:11**
3:53	**4:06**	**4:14**	**4:16**	**4:29**
4:11	**4:24**	**4:32**	**4:34**	**4:47**
4:29	**4:42**	**4:50**	**4:52**	**5:05**
4:47	**5:00**	**5:08**	**5:10**	**5:23**
5:05	**5:18**	**5:25**	**5:27**	**5:39**
5:23	**5:36**	**5:43**	**5:45**	**5:57**
5:41	**5:53**	**6:00**	**6:02**	**6:14**
6:00	**6:12**	**6:19**	**6:21**	**6:33**
6:20	**6:32**	**6:39**	**6:41**	**6:53**
6:45	**6:57**	**7:04**	**7:06**	**7:18**
7:10	**7:21**	**7:28**	**7:29**	**7:40**
7:40	**7:51**	**7:58**	**7:59**	**8:10**

TRIP DEPARTS FROM HINDRY AVE. AT FLORENCE AVE. (A) AT TIME SHOWN & DOES NOT SERVE ARTISANS WAY AT CENTINELA AVE.
VIAJE SALE DE HINDRY AVE. Y FLORENCE AVE. (A) A LA HORA MOSTRADA Y NO SIRVE A ARTISANS WAY Y CENTINELA AVE.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

BRENTWOOD TO PLAYA VISTA

BRINGHAM & GORHAM (VETERANS HOME OF CALIFORNIA) (F)	BUNDY & EXPOSITION (BUNDY STATION) (E)	BUNDY & PICO (D)	CENTINELA & VENICE (C)	ARTISANS & CENTINELA (B)
6:00	6:09	6:10	6:15	6:25
6:45	6:55	6:57	7:03	7:13
7:10	7:20	7:22	7:28	7:38
7:35	7:45	7:47	7:53	8:03
8:00	8:11	8:13	8:19	8:30
8:25	8:36	8:38	8:44	8:55
8:50	9:01	9:03	9:09	9:20
9:15	9:27	9:29	9:36	9:48
9:40	9:52	9:54	10:01	10:13
10:05	10:17	10:19	10:26	10:38
10:25	10:37	10:39	10:46	10:58
10:45	10:57	10:59	11:06	11:18
11:05	11:17	11:19	11:26	11:38
11:25	11:37	11:39	11:46	11:58
11:45	11:58	**12:00**	**12:08**	**12:21**
12:05	**12:18**	**12:20**	**12:28**	**12:41**
12:25	**12:38**	**12:40**	**12:48**	**1:01**
12:45	**12:58**	**1:00**	**1:08**	**1:21**
1:03	**1:16**	**1:18**	**1:26**	**1:39**
1:21	**1:34**	**1:36**	**1:44**	**1:57**
1:39	**1:52**	**1:54**	**2:02**	**2:15**
1:57	**2:10**	**2:12**	**2:20**	**2:33**
2:15	**2:28**	**2:30**	**2:38**	**2:51**
2:33	**2:46**	**2:48**	**2:56**	**3:09**
2:51	**3:04**	**3:06**	**3:14**	**3:27**
3:09	**3:22**	**3:24**	**3:32**	**3:45**
3:27	**3:40**	**3:42**	**3:50**	**4:03**
3:45	**3:58**	**4:00**	**4:08**	**4:21**
4:03	**4:16**	**4:18**	**4:26**	**4:39**
4:21	**4:34**	**4:36**	**4:44**	**4:57**
4:39	**4:52**	**4:54**	**5:02**	**5:15**
4:57	**5:10**	**5:12**	**5:20**	**5:33**
5:15	**5:28**	**5:30**	**5:38**	**5:51**
5:33	**5:46**	**5:48**	**5:56**	**6:09**
5:51	**6:03**	**6:05**	**6:12**	**6:40** (A)
6:07	**6:19**	**6:21**	**6:28**	**6:40**
6:27	**6:39**	**6:41**	**6:48**	**7:00**
6:45	**6:57**	**6:59**	**7:06**	**7:34** (A)
7:02	**7:14**	**7:16**	**7:23**	**7:35**
7:25	**7:37**	**7:39**	**7:45**	**8:10** (A)
7:50	**8:01**	**8:02**	**8:08**	**8:17**
8:20	**8:31**	**8:32**	**8:38**	**8:47**

TRIP ENDS AT HINDRY AVE. AT FLORENCE AVE. (A) AT TIME SHOWN & DOES NOT SERVE ARTISANS WAY AT CENTINELA AVE.
VIAJE TERMINA EN HINDRY AVE. EN FLORENCE AVE. (A) EN LOS HORARIOS QUE SE MUESTRAN Y NO SIRVE A ARTISANS WAY Y CENTINELA AVE.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

PLAYA VISTA TO BRENTWOOD

ARTISANS & CENTINELA (B)	CENTINELA & VENICE (C)	BUNDY & PICO (D)	BUNDY & EXPOSITION (BUNDY STATION) (E)	BRINGHAM & GORHAM (VETERANS HOME OF CALIFORNIA) (F)
5:56 (A)	6:15	6:21	6:22	6:32
6:44 (A)	7:05	7:11	7:12	7:22
7:20	7:30	7:36	7:37	7:47
7:40	7:50	7:56	7:57	8:07
8:05	8:16	8:23	8:24	8:35
8:30	8:41	8:48	8:49	9:00
8:55	9:06	9:13	9:14	9:25
9:20	9:31	9:38	9:39	9:50
9:45	9:57	10:04	10:06	10:18
10:13	10:25	10:32	10:34	10:46
10:41	10:53	11:00	11:02	11:14
11:09	11:21	11:28	11:30	11:42
11:37	11:49	11:56	11:58	**12:10**
12:05	**12:17**	**12:24**	**12:26**	**12:38**
12:35	**12:48**	**12:56**	**12:58**	**1:11**
1:05	**1:18**	**1:26**	**1:28**	**1:41**
1:35	**1:48**	**1:56**	**1:58**	**2:11**
2:05	**2:18**	**2:26**	**2:28**	**2:41**
2:35	**2:48**	**2:56**	**2:58**	**3:11**
3:05	**3:18**	**3:26**	**3:28**	**3:41**
3:35	**3:48**	**3:56**	**3:58**	**4:11**
4:05	**4:18**	**4:26**	**4:28**	**4:41**
4:35	**4:48**	**4:55**	**4:57**	**5:09**
5:05	**5:18**	**5:25**	**5:27**	**5:39**
5:35	**5:46**	**5:53**	**5:55**	**6:07**
6:03	**6:14**	**6:21**	**6:23**	**6:35**
6:31	**6:42**	**6:49**	**6:51**	**7:03**
6:58	**7:09**	**7:16**	**7:18**	**7:30**
7:23	**7:33**	**7:39**	**7:41**	**7:51**

TRIP DEPARTS FROM HINDRY AVE. AT FLORENCE AVE. (A) AT TIME SHOWN & DOES NOT SERVE ARTISANS WAY AT CENTINELA AVE.
VIAJE SALE DE HINDRY AVE. Y FLORENCE AVE. (A) A LA HORA MOSTRADA Y NO SIRVE A ARTISANS WAY Y CENTINELA AVE.

GOOD BUS KARMA
Keep It Clean
Respect those who will ride after you.

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

BRENTWOOD TO PLAYA VISTA

BRINGHAM & GORHAM (VETERANS HOME OF CALIFORNIA) (F)	BUNDY & EXPOSITION (BUNDY STATION) (E)	BUNDY & PICO (D)	CENTINELA & VENICE (C)	ARTISANS & CENTINELA (B)
6:40	6:51	6:53	6:58	7:08
7:30	7:41	7:43	7:48	7:58
7:54	8:06	8:08	8:14	8:25
8:18	8:30	8:32	8:38	8:49
8:42	8:54	8:56	9:02	9:13
9:08	9:20	9:22	9:28	9:39
9:33	9:45	9:47	9:54	10:06
10:01	10:13	10:15	10:22	10:34
10:29	10:41	10:43	10:50	11:02
10:57	11:09	11:11	11:18	11:30
11:25	11:37	11:39	11:46	11:58
11:53	**12:05**	**12:07**	**12:14**	**12:26**
12:21	**12:34**	**12:36**	**12:44**	**12:57**
12:51	**1:04**	**1:06**	**1:14**	**1:27**
1:21	**1:34**	**1:36**	**1:44**	**1:57**
1:51	**2:04**	**2:06**	**2:14**	**2:27**
2:21	**2:34**	**2:36**	**2:44**	**2:57**
2:51	**3:04**	**3:06**	**3:14**	**3:27**
3:21	**3:34**	**3:36**	**3:44**	**3:57**
3:51	**4:04**	**4:06**	**4:14**	**4:27**
4:21	**4:34**	**4:36**	**4:44**	**4:57**
4:51	**5:04**	**5:06**	**5:14**	**5:27**
5:21	**5:34**	**5:36**	**5:44**	**5:57**
5:49	**6:01**	**6:03**	**6:10**	**6:22**
6:17	**6:29**	**6:31**	**6:38**	**6:50**
6:45	**6:57**	**6:59**	**7:06**	**7:18**
7:10	**7:22**	**7:24**	**7:31**	**7:56** (A)
8:00	**8:11**	**8:12**	**8:19**	**8:41** (A)

TRIP ENDS AT HINDRY AVE. AT FLORENCE AVE. (A) AT TIME SHOWN & DOES NOT SERVE ARTISANS WAY AT CENTINELA AVE.
VIAJE TERMINA EN HINDRY AVE. EN FLORENCE AVE. (A) EN LOS HORARIOS QUE SE MUESTRAN Y NO SIRVE A ARTISANS WAY Y CENTINELA AVE.

GOOD BIKE KARMA
Heads up
As you exit the bus, let the operator know that you will be removing your bike from the rack.

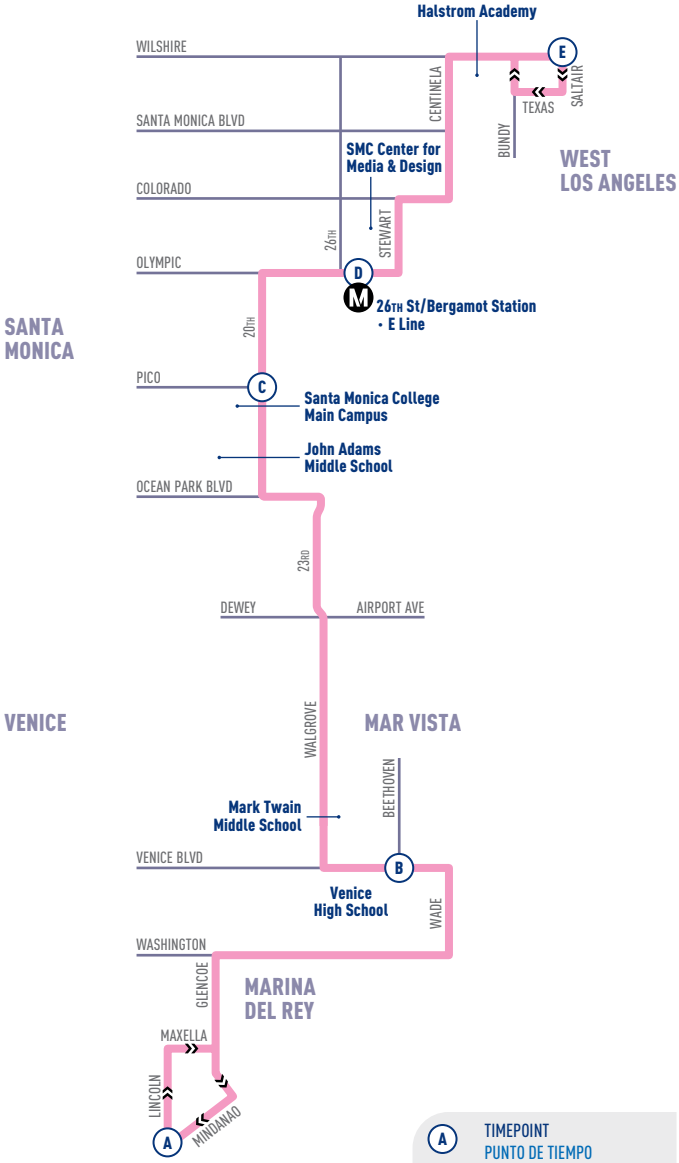
ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

MARINA DEL REY – WILSHIRE BLVD/BUNDY DR

16

MONDAY–FRIDAY SERVICE ONLY
SERVICIO DE LUNES–VIERNES SOLAMENTE



EFFECTIVE DATE: MARCH 27, 2022

MARINA DEL REY TO WILSHIRE BLVD/BUNDY DR

LINCOLN & MINDANAO (A)	VENICE & BEETHOVEN (B)	20TH & PICO (SANTA MONICA COLLEGE) (C)	OLYMPIC & 26TH (26TH ST/BERGAMOT STATION) (D)	SALTAIR & WILSHIRE (E)
6:20	6:30	6:40	6:44	6:53
6:45	6:55	7:05	7:09	7:18
7:10	7:21	7:32	7:36	7:46
7:35	7:47	7:59	8:04	8:15
8:00	8:12	8:24	8:29	8:40
8:25	8:37	8:49	8:54	9:05
8:50	9:02	9:14	9:19	9:30
9:15	9:26	9:37	9:43	9:53
9:40	9:50	10:00	10:05	10:16
10:05	10:15	10:25	10:30	10:41
10:30	10:40	10:50	10:55	11:06
10:55	11:05	11:15	11:20	11:31
11:20	11:30	11:40	11:45	11:56
11:45	11:55	**12:05**	**12:10**	**12:21**
12:10	**12:20**	**12:30**	**12:35**	**12:46**
12:35	**12:45**	**12:55**	**1:00**	**1:11**
1:00	**1:10**	**1:20**	**1:25**	**1:36**
1:25	**1:35**	**1:45**	**1:50**	**2:01**
1:50	**2:00**	**2:10**	**2:15**	**2:26**
2:18	**2:29**	**2:39**	**2:44**	**2:57**
2:45	**2:56**	**3:06**	**3:11**	**3:24**
3:15	**3:26**	**3:36**	**3:41**	**3:54**
3:45	**3:56**	**4:06**	**4:11**	**4:24**
4:15	**4:26**	**4:36**	**4:41**	**4:54**
4:45	**4:56**	**5:06**	**5:11**	**5:24**
5:15	**5:26**	**5:36**	**5:41**	**5:54**
5:50	**6:00**	**6:10**	**6:14**	**6:25**
6:25	**6:35**	**6:45**	**6:49**	**7:00**

ROUTE 15 DOES NOT OPERATE ON WEEKENDS OR THE FOLLOWING HOLIDAYS:
LA RUTA 15 NO OPERA LOS FINES DE SEMANA, NI EN LOS SIGUIENTES DÍAS FESTIVOS:

NEW YEAR'S EVE
PRESIDENTS' DAY
LABOR DAY
CHRISTMAS EVE
NEW YEAR'S DAY
MEMORIAL DAY
THANKSGIVING DAY
CHRISTMAS
MARTIN LUTHER KING JR. DAY
INDEPENDENCE DAY
DAY AFTER THANKSGIVING

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

WILSHIRE BLVD/BUNDY DR TO MARINA DEL REY

SALTAIR & WILSHIRE (E)	OLYMPIC & 26TH (26TH ST/BERGAMOT STATION) (D)	220TH & PICO (SANTA MONICA COLLEGE) (C)	VENICE & BEETHOVEN (B)	LINCOLN & MINDANAO (A)
7:10	7:18	7:22	7:34	7:44
7:35	7:43	7:48	8:00	8:11
8:00	8:08	8:13	8:25	8:36
8:25	8:33	8:38	8:50	9:01
8:50	8:59	9:04	9:16	9:28
9:15	9:24	9:29	9:41	9:53
9:40	9:49	9:54	10:06	10:18
10:05	10:14	10:19	10:31	10:43
10:30	10:39	10:44	10:56	11:08
10:55	11:04	11:09	11:21	11:33
11:20	11:29	11:34	11:46	11:58
11:45	11:54	11:59	**12:11**	**12:23**
12:10	**12:19**	**12:24**	**12:36**	**12:48**
12:35	**12:44**	**12:49**	**1:01**	**1:13**
1:00	**1:09**	**1:14**	**1:26**	**1:38**
1:25	**1:35**	**1:40**	**1:54**	**2:07**
1:50	**2:00**	**2:05**	**2:19**	**2:32**
2:15	**2:26**	**2:31**	**2:48**	**3:02**
2:40	**2:51**	**2:56**	**3:13**	**3:27**
3:10	**3:21**	**3:26**	**3:45**	**4:00**
3:35	**3:47**	**3:52**	**4:14**	**4:30**
4:05	**4:17**	**4:22**	**4:44**	**5:00**
4:35	**4:47**	**4:52**	**5:19**	**5:35**
5:05	**5:17**	**5:22**	**5:54**	**6:11**
5:35	**5:47**	**5:52**	**6:19**	**6:34**
6:05	**6:17**	**6:22**	**6:49**	**7:04**

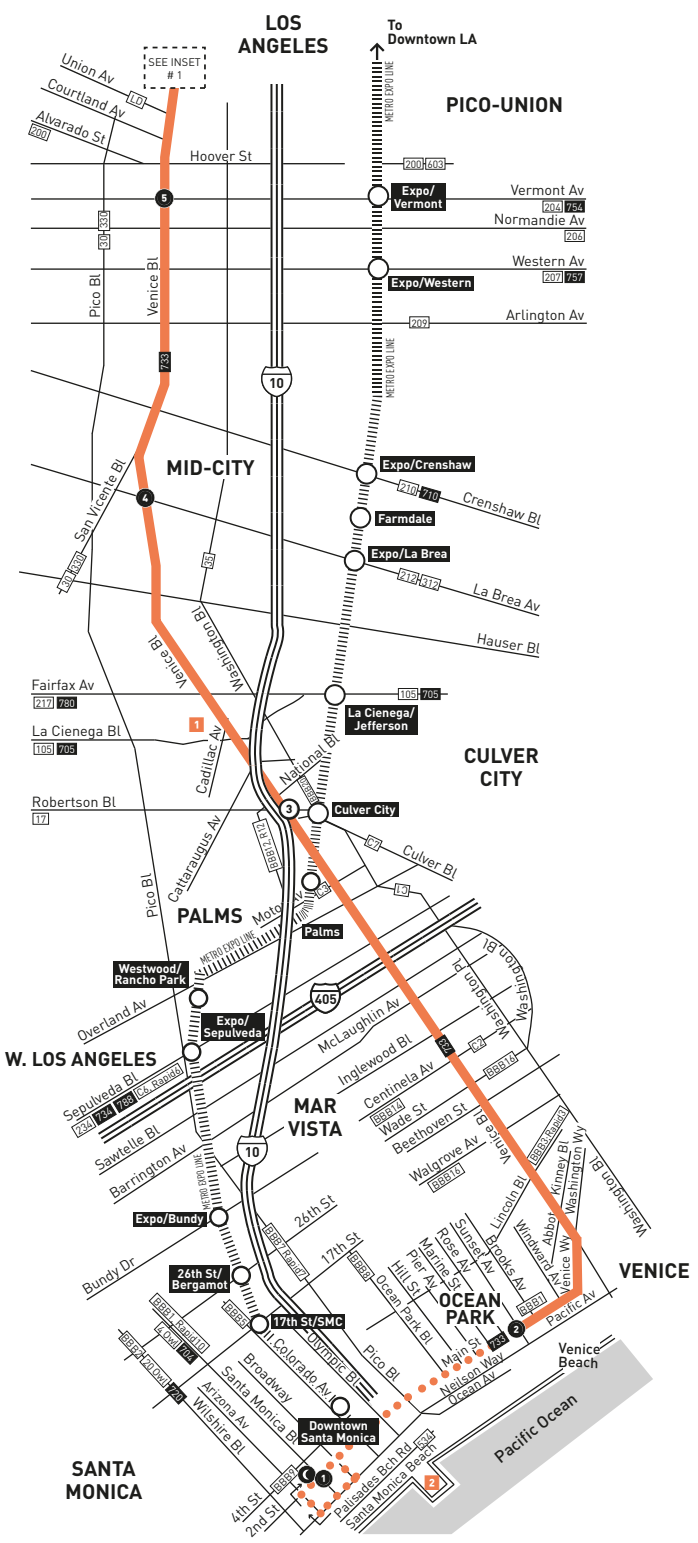
ROUTE 15 DOES NOT OPERATE ON WEEKENDS OR THE FOLLOWING HOLIDAYS:
LA RUTA 15 NO OPERA LOS FINES DE SEMANA, NI EN LOS SIGUIENTES DÍAS FESTIVOS:

NEW YEAR'S EVE
PRESIDENTS' DAY
LABOR DAY
CHRISTMAS EVE
NEW YEAR'S DAY
MEMORIAL DAY
THANKSGIVING DAY
CHRISTMAS
MARTIN LUTHER KING JR. DAY
INDEPENDENCE DAY
DAY AFTER THANKSGIVING

ALL PM TIMES IN BOLD

EFFECTIVE DATE: MARCH 27, 2022

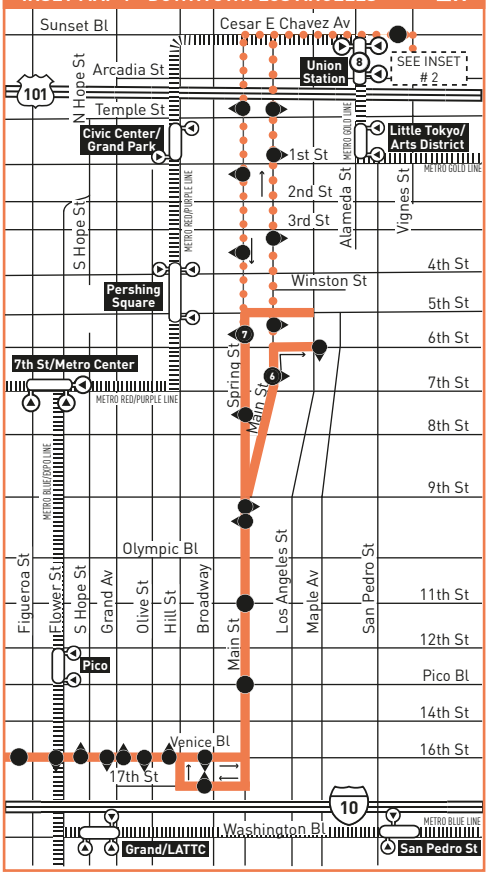
ROUTE MAP



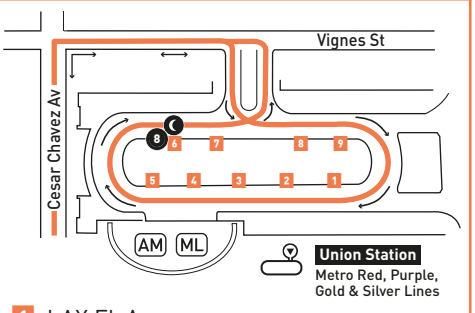
LEGEND

- Line 33 Route
- Line 33 Am, Eve/Owl Trips
- Owl Timepoint
- Local Stop
- Local Stop - Single Direction Only
- Local Stop Timepoint
- Local Stop Timepoint - Single Direction Only
- Metro Rail Station
- Metro Rail Station & Timepoint - Single Direction Only
- AM Amtrak
- ML Metrolink
- AV Antelope Valley Transit Authority
- BBB Santa Monica's Big Blue Bus
- C Culver City Bus
- CE LADOT Commuter Express
- FT Foothill Transit
- LD LADOT DASH
- OC Orange County Bus

INSET MAP 1 - DOWNTOWN LOS ANGELES



INSET MAP 2 - PATSAOURAS BUS PLAZA



1. LAX FlyAway
2. AV 785; LADOT DASH D; Mt St Mary's College Shuttle
3. CE 431, 534; LADOT Bunker Hill Shuttle; SC 794
4. FT 699; OC 701; USC Shuttles: HSC, ICS, UPC, SoTo
5. Metro 40, 442, 704
6. Metro 33 (Late night trips before 1:00 am), 728, 733.
7. Metro 745; Citadel Outlets Express
8. megabus.com
9. Discharge Only

INSET 1 – DOWNTOWN LOS ANGELES

- Line 33 Route
- Line 33 Owl Route Trips
- Metro Rail Station
- Metro Rail Station Entrance
- Metro Rail

MAP NOTES

1. **Kaiser Permanente Hospital**
2. **Santa Monica Pier**

Sunday and Holiday Schedule

Effective Jun 23 2019

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Eastbound *Al Este* (Approximate Times / *Tiempos Aproximados*)

SANTA MONICA	VENICE	CULVER CITY	LOS ANGELES		DOWNTOWN LOS ANGELES	
1	2	3	4	5	6	8
2nd & Santa Monica	Main & Sunset	Culver City Station	Venice & La Brea	Venice & Vermont	Main & 7th	Patsaouras Bus Plaza / LA Union Station
5:26A	5:35A	5:57A	6:07A	6:18A	6:33A	—
—	6:05	6:29	6:40	6:51	7:06	—
—	6:39	7:03	7:14	7:26	7:40	—
—	7:13	7:37	7:48	8:00	8:16	—
—	7:44	8:09	8:20	8:33	8:49	—
—	8:14	8:41	8:52	9:05	9:22	—
—	8:45	9:12	9:23	9:38	9:55	—
—	9:12	9:40	9:52	10:07	10:24	—
—	9:41	10:10	10:22	10:37	10:54	—
—	10:07	10:36	10:49	11:04	11:21	—
—	10:30	11:00	11:13	11:28	11:45	—
—	10:52	11:23	11:36	11:51	12:08P	—
—	11:11	11:43	11:57	12:12P	12:29	—
—	11:32	12:04P	12:18P	12:33	12:50	—
—	11:52	12:25	12:39	12:54	1:11	—
—	12:13P	12:46	1:00	1:15	1:32	—
—	12:35	1:08	1:21	1:36	1:53	—
—	12:56	1:29	1:42	1:57	2:14	—
—	1:17	1:50	2:03	2:18	2:35	—
—	1:38	2:11	2:24	2:39	2:56	—
—	1:58	2:31	2:44	2:59	3:16	—
—	2:18	2:51	3:04	3:19	3:36	—
—	2:37	3:10	3:24	3:39	3:56	—
—	2:56	3:30	3:44	3:59	4:16	—
—	3:16	3:50	4:04	4:19	4:36	—
—	3:36	4:10	4:24	4:39	4:56	—
—	3:56	4:30	4:44	4:59	5:13	—
—	4:16	4:50	5:04	5:19	5:36	—
—	4:36	5:10	5:24	5:39	5:56	—
—	4:56	5:30	5:44	5:59	6:13	—
—	5:16	5:50	6:04	6:18	6:35	—
—	5:37	6:11	6:24	6:38	6:52	—
—	5:57	6:31	6:44	6:58	7:11	—
—	6:19	6:52	7:04	7:18	7:31	—
—	6:41	7:12	7:24	7:38	7:51	—
—	7:03	7:34	7:46	8:00	8:13	—
—	7:26	7:56	8:08	8:22	8:38	—
—	7:49	8:18	8:30	8:43	8:56	—
—	8:11	8:40	8:52	9:05	9:21	—
—	8:36	9:03	9:14	9:27	9:42	—
—	8:58	9:25	9:36	9:48	10:00	—
—	9:20	9:47	9:58	10:10	10:25	—
—	9:42	10:09	10:20	10:32	10:46	—
—	10:05	10:31	10:42	10:53	11:07	—
—	10:32	10:57	11:07	11:18	11:30	11:37P
—	10:58	11:22	11:32	11:43	11:55	12:02A
—	11:23	11:47	11:57	12:08A	12:20A	12:27
11:40P	11:49	12:12A	12:22A	12:33	12:45	12:52
12:07A	12:16A	12:37	12:47	12:58	C1:10	—
12:33	12:42	1:02	1:12	1:22	C1:34	—
12:58	1:07	1:27	1:37	1:47	C1:59	—
1:23	1:32	1:52	2:02	2:12	C2:24	—
1:52	2:01	2:21	2:31	2:41	C2:53	—
2:22	2:31	2:51	3:01	3:11	C3:23	—
2:57	3:06	3:26	3:36	3:46	C3:58	—
3:37	3:46	4:06	4:16	4:26	C4:38	—
4:37	4:46	5:06	5:16	5:26	C5:38	—

Westbound *Al Oeste* (Approximate Times / *Tiempos Aproximados*)

DOWNTOWN LOS ANGELES		LOS ANGELES		CULVER CITY	VENICE	SANTA MONICA
8	7	5	4	3	2	1
Patsaouras Bus Plaza / LA Union Station	Spring & 6th	Venice & Vermont	Venice & La Brea	Culver City Station	Main & Sunset	2nd & Santa Monica
3:59A	4:09A	4:24A	4:34A	4:43A	5:06A	5:15A
—	5:12	5:24	5:35	5:44	6:06	—
—	5:52	6:05	6:18	6:27	6:52	—
—	6:23	6:38	6:51	7:00	7:25	—
—	6:53	7:08	7:21	7:30	7:56	—
—	7:22	7:37	7:50	8:01	8:27	—
—	7:50	8:05	8:19	8:30	8:56	—
—	8:16	8:32	8:46	8:57	9:24	—
—	8:41	8:57	9:11	9:22	9:52	—
—	9:06	9:22	9:36	9:48	10:18	—
—	9:28	9:44	9:58	10:10	10:40	—
—	9:50	10:06	10:20	10:32	11:05	—
—	10:08	10:25	10:40	10:52	11:27	—
—	10:28	10:45	11:00	11:12	11:47	—
—	10:48	11:05	11:20	11:32	12:07P	—
—	11:08	11:25	11:40	11:52	12:27	—
—	11:28	11:45	11:59	12:13P	12:48	—
—	11:46	12:04P	12:20P	12:33	1:08	—
—	12:03P	12:24	12:40	12:53	1:28	—
—	12:23	12:44	1:00	1:13	1:48	—
—	12:43	1:04	1:20	1:33	2:08	—
—	1:03	1:24	1:40	1:53	2:28	—
—	1:23	1:44	2:00	2:13	2:48	—
—	1:43	2:04	2:20	2:33	3:07	—
—	2:03	2:24	2:40	2:53	3:27	—
—	2:22	2:44	3:00	3:14	3:48	—
—	2:43	3:04	3:20	3:34	4:08	—
—	3:03	3:24	3:40	3:54	4:28	—
—	3:24	3:45	4:01	4:15	4:49	—
—	3:45	4:06	4:22	4:36	5:08	—
—	4:07	4:28	4:44	4:58	5:29	—
—	4:29	4:50	5:06	5:19	5:49	—
—	4:51	5:12	5:28	5:40	6:10	—
—	5:14	5:35	5:50	6:02	6:32	—
—	5:40	6:00	6:15	6:27	6:56	—
—	6:06	6:25	6:40	6:51	7:20	—
—	6:35	6:53	7:08	7:19	7:47	—
—	7:04	7:22	7:37	7:48	8:16	—
—	7:29	7:52	8:07	8:18	8:45	—
—	8:04	8:22	8:37	8:48	9:15	—
—	8:38	8:54	9:07	9:18	9:44	—
—	B9:05	9:28	9:40	9:51	10:17	—
—	9:42	9:56	10:08	10:19	10:45	—
—	B10:05	10:27	10:39	10:50	11:15	11:24P
—	10:43	10:57	11:08	11:19	11:42	11:51
—	B11:05	11:27	11:38	11:49	12:11A	12:20A
—	11:44	11:56	12:06A	12:17A	12:39	12:48
11:58P	B12:06A	12:27A	12:37	12:48	1:10	1:19
12:57A	B1:05	1:26	1:36	1:46	2:08	2:17
—	DB2:05	2:26	2:36	2:46	3:08	3:17
—	DB3:05	3:26	3:36	3:46	4:08	4:17

Monday through Friday

Effective Jun 23 2019

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Eastbound *Al Este* (Approximate Times / *Tiempos Aproximados*)

SANTA MONICA	VENICE	CULVER CITY	LOS ANGELES		DOWNTOWN LOS ANGELES	
1	2	3	4	5	6	8
2nd & Santa Monica	Main & Sunset	Culver City Station	Venice & La Brea	Venice & Vermont	Main & 7th	Patsaouras Bus Plaza / LA Union Station
—	5:07A	5:29A	5:40A	5:51A	6:06A	—
—	5:30	5:52	6:03	6:16	6:32	—
5:40A	5:49	6:12	6:23	6:36	6:53	—
—	6:07	6:31	6:43	6:57	7:15	—
—	6:25	6:51	7:03	7:19	7:37	—
—	6:43	7:10	7:23	7:40	7:59	—
—	7:02	7:30	7:43	8:00	8:19	—
—	7:19	7:50	8:03	8:20	8:39	—
—	7:37	8:09	8:23	8:40	8:59	—
—	7:56	8:29	8:43	9:00	9:18	—
—	8:16	8:49	9:03	9:19	9:35	—
—	8:37	9:10	9:23	9:39	9:57	—
—	8:57	9:30	9:43	9:59	10:17	—
—	9:19	9:52	10:05	10:21	10:39	—
—	9:43	10:16	10:29	10:45	11:02	—
—	10:07	10:40	10:53	11:09	11:27	—
—	10:31	11:04	11:17	11:33	11:51	—
—	10:54	11:27	11:41	11:57	12:15P	—
—	11:16	11:49	12:03P	12:19P	12:37	—
—	11:39	12:12P	12:26	12:42	1:00	—
—	11:59	12:32	12:46	1:02	1:20	—
—	12:16P	12:50	1:04	1:20	1:38	—
—	12:34	1:08	1:22	1:38	1:56	—
—	12:50	1:24	1:38	1:54	2:12	—
—	1:04	1:38	1:52	2:09	2:27	—
—	1:18	1:52	2:06	2:24	2:42	—
—	1:32	2:06	2:20	2:38	2:56	—
—	1:45	2:20	2:34	2:52	3:10	—
—	1:56	2:32	2:48	3:07	3:25	—
—	2:07	2:45	3:01	3:21	3:39	—
—	2:16	2:54	3:12	3:32	3:50	—
—	2:26	3:05	3:23	3:43	4:01	—
—	2:35	3:15	3:33	3:53	4:11	—
—	2:42	3:23	3:41	4:01	4:19	—
—	2:48	3:30	3:49	4:09	4:27	—
—	2:54	3:39	3:58	4:18	4:36	—
—	3:03	3:48	4:07	4:27	4:46	—
—	3:12	3:57	4:16	4:36	4:55	—
—	3:20	4:07	4:26	4:46	5:05	—
—	3:30	4:17	4:36	4:56	5:15	—
—	3:40	4:27	4:46	5:06	5:26	—
—	3:51	4:37	4:56	5:16	5:35	—
—	4:01	4:47	5:06	5:26	5:45	—
—	4:12	4:58	5:17	5:37	5:56	—
—	4:22	5:09	5:28	5:48	6:07	—
—	4:33	5:20	5:39	5:59	6:17	—
—	4:44	5:31	5:50	6:10	6:28	—
—	4:55	5:42	6:01	6:21	6:38	—
—	5:07	5:54	6:12	6:32	6:48	—
—	5:18	6:05	6:23	6:41	6:57	—
—	5:29	6:16	6:34	6:51	7:06	—
—	5:40	6:27	6:45	7:02	7:15	—
—	5:51	6:38	6:56	7:11	7:24	—
—	6:06	6:52	7:07	7:22	7:36	—
—	6:26	7:07	7:21	7:36	7:51	—
—	6:43	7:22	7:36	7:51	8:06	—
—	7:05	7:40	7:52	8:07	8:22	—
—	7:25	7:58	8:10	8:24	8:39	—
—	7:47	8:16	8:28	8:42	8:57	—
—	8:06	8:34	8:46	9:00	9:14	—
—	8:25	8:52	9:04	9:17	9:31	—
—	8:46	9:12	9:24	9:37	9:51	—
—	9:09	9:35	9:47	10:00	10:14	—
—	9:29	9:55	10:07	10:20	10:32	10:39P
—	9:51	10:17	10:29	10:40	10:52	10:59
—	10:15	10:41	10:52	11:03	11:15	11:22
—	10:49	11:12	11:22	11:33	11:45	11:52
11:11P	11:20	11:42	11:52	12:03A	12:15A	12:22A
11:43	11:52	12:14A	12:24A	12:35	12:47	12:54
12:19A	12:28A	12:50	1:00	1:11	C1:23	—
12:40	12:49	1:11	1:21	1:32	C1:44	—
1:00	1:09	1:31	1:41	1:52	C2:04	—
1:23	1:32	1:54	2:04	2:15	C2:27	—
1:50	1:59	2:21	2:31	2:42	C2:54	—
2:20	2:29	2:51	3:01	3:12	C3:24	—
2:55	3:04	3:26	3:36	3:47	C3:59	—
3:35	3:44	4:06	4:16	4:27	C4:39	—
4:35	4:44	5:06	5:16	5:27	C5:39	—

Westbound *Al Oeste* (Approximate Times / *Tiempos Aproximados*)

DOWNTOWN LOS ANGELES		LOS ANGELES		CULVER CITY	VENICE	SANTA MONICA
8	7	5	4	3	2	1
Patsaouras Bus Plaza / LA Union Station	Spring & 6th	Venice & Vermont	Venice & La Brea	Culver City Station	Main & Sunset	2nd & Santa Monica
4:00A	4:10A	4:25A	4:37A	4:46A	5:08A	5:17A
—	4:38	4:53	5:07	5:17	5:41	—
—	4:52	5:07	5:21	5:31	5:55	—
—	5:12	5:27	5:41	5:51	6:15	—
—	5:31	5:47	6:01	6:12	6:36	—
—	5:44	6:00	6:17	6:28	6:54	—
—	5:58	6:15	6:32	6:48	7:15	—
5:57	6:07	6:22	6:42	6:58	7:26	—
—	6:11	6:28	6:49	7:06	7:34	—
—	6:15	6:33	6:54	7:11	7:40	—
—	6:19	6:38	6:59	7:16	7:45	—
—	6:24	6:43	7:04	7:21	7:51	—
—	6:28	6:47	7:09	7:26	7:57	—
—	6:32	6:51	7:14	7:32	8:04	—
—	6:38	6:57	7:20	7:41	8:13	—
—	6:47	7:06	7:30	7:54	8:26	—
—	6:55	7:15	7:40	8:04	8:36	—
—	7:04	7:25	7:50	8:14	8:46	—
—	7:14	7:35	8:00	8:24	8:56	—
—	7:25	7:47	8:12	8:36	9:08	—
—	7:37	7:59	8:24	8:48	9:20	—
—	7:51	8:12	8:37	9:01	9:33	—
—	8:06	8:27	8:51	9:11	9:43	—
—	8:21	8:42	9:05	9:22	9:54	—
—	8:39	9:00	9:19	9:36	10:08	—
—	8:54	9:14	9:33	9:50	10:22	—
—	9:08	9:28	9:47	10:04	10:36	—
—	9:23	9:43	10:02	10:18	10:50	—
—	9:39	9:59	10:18	10:33	11:05	—
—	9:56	10:16	10:35	10:49	11:21	—
—	10:14	10:34	10:52	11:06	11:38	—
—	10:31	10:51	11:09	11:23	11:55	—
—	10:49	11:09	11:27	11:41	12:13P	—
—	11:07	11:27	11:45	11:59	12:31	—
—	11:23	11:44	12:02P	12:16P	12:48	—
—	11:40	12:01P	12:19	12:33	1:05	—
—	11:56	12:18	12:36	12:50	1:22	—
—	12:13P	12:35	12:53	1:07	1:39	—
—	12:29	12:51	1:09	1:23	1:55	—
—	12:45	1:07	1:25	1:39	2:12	—
—	1:01	1:23	1:41	1:55	2:28	—
—	1:17	1:39	1:57	2:11	2:45	—
—	1:33	1:55	2:13	2:27	3:01	—
—	1:49	2:11	2:29	2:43	3:17	—
—	2:05	2:27	2:45	2:59	3:33	—
—	2:21	2:43	3:01	3:16	3:50	—
—	2:36	2:58	3:17	3:32	4:06	—
—	2:51	3:14	3:33	3:48	4:22	—
—	3:05	3:29	3:49	4:04	4:38	—
—	3:20	3:45	4:05	4:20	4:54	—
—	3:36	4:01	4:21	4:36	5:10	—
—	3:52	4:17	4:37	4:52	5:26	—
—	4:08	4:33	4:53	5:08	5:41	—
—	4:25	4:50	5:10	5:27	6:00	—
—	4:42	5:07	5:27	5:43	6:16	—
—	4:56	5:23	5:43	5:58	6:31	—
—	5:12	5:39	5:59	6:14	6:47	—
—	5:30	5:57	6:17	6:32	7:05	—
—	5:51	6:18	6:37	6:51	7:23	—
—	6:27	6:50	7:07	7:20	7:50	—
—	7:05	7:23	7:39	7:50	8:18	—
—	7:35	7:53	8:09	8:20	8:47	—
—	8:05	8:23	8:39	8:50	9:17	—
—	8:32	8:49	9:04	9:15	9:41	—
—	B8:57	9:20	9:33	9:44	10:09	—
—	9:31	9:46	9:59	10:09	10:32	10:42P
—	B10:01	10:23	10:36	10:46	11:09	11:19
—	10:51	11:06	11:18	11:28	11:50	11:59
11:17P	B11:25	11:46	11:58	12:08A	12:30A	12:40A
11:42	11:51	12:06A	12:18A	12:28	12:50	1:00
11:56	B12:04A	12:25	12:37	12:47	1:09	1:18
12:56A	B1:04	1:25	1:37	1:46	2:08	2:17
—	DB2:04	2:25	2:37	2:46	3:08	3:17
—	DB3:04	3:25	3:37	3:46	4:08	4:17

Saturday

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Eastbound *Al Este* (Approximate Times / *Tiempos Aproximados*)

SANTA MONICA	VENICE	CULVER CITY	LOS ANGELES		DOWNTOWN LOS ANGELES	
1	2	3	4	5	6	8
2nd & Santa Monica	Main & Sunset	Culver City Station	Venice & La Brea	Venice & Vermont	Main & 7th	Patsaouras Bus Plaza / LA Union Station
5:27A	5:36A	5:57A	6:08A	6:20A	6:35A	—
—	6:07	6:30	6:41	6:53	7:10	—
—	6:40	7:03	7:14	7:26	7:44	—
—	7:07	7:31	7:43	7:57	8:15	—
—	7:31	7:56	8:08	8:22	8:40	—
—	7:52	8:18	8:30	8:44	9:02	—
—	8:10	8:38	8:50	9:04	9:22	—
—	8:28	8:58	9:10	9:24	9:42	—
—	8:50	9:20	9:32	9:47	10:05	—
—	9:11	9:41	9:54	10:09	10:27	—
—	9:33	10:03	10:16	10:31	10:49	—
—	9:54	10:25	10:38	10:53	11:12	—
—	10:14	10:45	10:58	11:14	11:33	—
—	10:34	11:05	11:18	11:34	11:53	—
—	10:54	11:25	11:38	11:54	12:13P	—
—	11:14	11:45	11:58	12:15P	12:31	—
—	11:34	12:05P	12:18P	12:35	12:54	—
—	11:52	12:26	12:39	12:56	1:12	—
—	12:11P	12:45	12:59	1:16	1:32	—
—	12:30	1:05	1:19	1:36	1:55	—
—	12:50	1:25	1:39	1:56	2:12	—
—	1:09	1:45	1:59	2:16	2:34	—
—	1:29	2:05	2:19	2:36	2:54	—
—	1:48	2:24	2:38	2:55	3:13	—
—	2:06	2:42	2:56	3:13	3:29	—
—	2:21	2:57	3:11	3:28	3:46	—
—	2:36	3:12	3:26	3:43	4:01	—
—	2:51	3:27	3:41	3:58	4:15	—
—	3:05	3:41	3:55	4:12	4:27	—
—	3:19	3:55	4:09	4:26	4:43	—
—	3:31	4:09	4:23	4:39	4:56	—
—	3:45	4:23	4:37	4:53	5:08	—
—	3:59	4:37	4:51	5:07	5:24	—
—	4:13	4:51	5:05	5:21	5:36	—
—	4:27	5:05	5:19	5:35	5:50	—
—	4:42	5:20	5:34	5:50	6:07	—
—	4:57	5:35	5:49	6:05	6:19	—
—	5:15	5:52	6:06	6:22	6:38	—
—	5:30	6:07	6:21	6:37	6:51	—
—	5:46	6:22	6:36	6:51	7:05	—
—	6:01	6:37	6:51	7:06	7:19	—
—	6:17	6:53	7:06	7:21	7:34	—
—	6:35	7:10	7:22	7:37	7:50	—
—	6:51	7:25	7:37	7:51	8:04	—
—	7:08	7:40	7:52	8:06	8:19	—
—	7:23	7:55	8:07	8:21	8:36	—
—	7:39	8:10	8:22	8:36	8:49	—
—	7:57	8:26	8:38	8:52	9:05	—
—	8:13	8:41	8:53	9:07	9:22	—
—	8:30	8:57	9:09	9:22	9:36	—
—	8:47	9:13	9:25	9:38	9:50	—
—	9:03	9:29	9:41	9:54	10:06	—
—	9:20	9:46	9:58	10:11	10:25	—
—	9:39	10:05	10:17	10:30	10:44	—
—	10:05	10:31	10:42	10:54	11:08	—
—	10:33	10:57	11:07	11:19	11:31	11:38P
—	10:58	11:22	11:32	11:44	11:56	12:03A
—	11:23	11:47	11:57	12:09A	12:21A	12:28
11:39P	11:48	12:12A	12:22A	12:34	12:46	12:53
12:04A	12:13A	12:37	12:47	12:59	C1:11	—
12:30	12:39	1:02	1:12	1:22	C1:34	—
12:57	1:06	1:27	1:37	1:47	C1:59	—
1:22	1:31	1:52	2:02	2:12	C2:24	—
1:51	2:00	2:21	2:31	2:41	C2:53	—
2:21	2:30	2:51	3:01	3:11	C3:23	—
2:56	3:05	3:26	3:36	3:46	C3:58	—
3:36	3:45	4:06	4:16	4:26	C4:38	—
4:36	4:45	5:06	5:16	5:26	C5:38	—

Westbound *Al Oeste* (Approximate Times / *Tiempos Aproximados*)

DOWNTOWN LOS ANGELES		LOS ANGELES		CULVER CITY	VENICE	SANTA MONICA
8	7	5	4	3	2	1
Patsaouras Bus Plaza / LA Union Station	Spring & 6th	Venice & Vermont	Venice & La Brea	Culver City Station	Main & Sunset	2nd & Santa Monica
4:01A	4:11A	4:26A	4:37A	4:46A	5:07A	5:16A
—	4:55	5:10	5:22	5:32	5:54	—
—	5:24	5:39	5:52	6:02	6:27	—
—	5:47	6:03	6:17	6:27	6:52	—
—	6:09	6:26	6:40	6:51	7:16	—
—	6:30	6:47	7:01	7:12	7:38	—
—	6:52	7:10	7:25	7:36	8:03	—
—	7:12	7:31	7:46	7:58	8:25	—
—	7:32	7:51	8:06	8:18	8:45	—
—	7:53	8:12	8:27	8:40	9:08	—
—	8:13	8:32	8:47	9:00	9:29	—
—	8:33	8:52	9:08	9:21	9:51	—
—	8:50	9:10	9:26	9:39	10:09	—
—	9:10	9:30	9:46	9:59	10:29	—
—	9:30	9:50	10:06	10:19	10:49	—
—	9:48	10:08	10:25	10:38	11:11	—
—	10:06	10:27	10:44	10:57	11:30	—
—	10:24	10:45	11:02	11:16	11:49	—
—	10:42	11:03	11:20	11:34	12:08P	—
—	11:00	11:21	11:38	11:52	12:27	—
—	11:18	11:39	11:56	12:10P	12:45	—
—	11:34	11:57	12:14P	12:28	1:03	—
—	11:51	12:15P	12:32	12:46	1:21	—
—	12:09P	12:33	12:50	1:04	1:39	—
—	12:27	12:51	1:08	1:22	1:57	—
—	12:45	1:09	1:26	1:40	2:15	—
—	1:03	1:27	1:44	1:58	2:33	—
—	1:19	1:43	2:00	2:14	2:49	—
—	1:33	1:57	2:14	2:28	3:03	—
—	1:46	2:10	2:28	2:42	3:17	—
—	2:01	2:25	2:43	2:57	3:32	—
—	2:18	2:42	3:00	3:14	3:49	—
—	2:33	2:57	3:15	3:29	4:04	—
—	2:49	3:12	3:30	3:44	4:19	—
—	3:05	3:28	3:46	4:00	4:35	—
—	3:22	3:45	4:03	4:17	4:52	—
—	3:39	4:02	4:20	4:34	5:08	—
—	3:56	4:19	4:37	4:51	5:25	—
—	4:13	4:36	4:54	5:08	5:41	—
—	4:31	4:52	5:10	5:23	5:55	—
—	4:47	5:08	5:26	5:39	6:11	—
—	5:06	5:27	5:45	5:58	6:29	—
—	5:27	5:48	6:06	6:19	6:50	—
—	5:59	6:19	6:36	6:49	7:20	—
—	6:29	6:49	7:06	7:19	7:48	—
—	7:02	7:20	7:36	7:49	8:18	—
—	7:33	7:51	8:06	8:18	8:45	—
—	8:04	8:22	8:37	8:49	9:16	—
—	8:34	8:52	9:07	9:18	9:44	—
—	B9:04	9:27	9:40	9:51	10:16	—
—	9:40	9:55	10:08	10:19	10:44	—
—	B10:04	10:26	10:39	10:50	11:13	11:23P
—	10:41	10:56	11:08	11:19	11:41	11:51
—	B11:04	11:26	11:38	11:49	12:10A	12:20A
—	11:39	11:54	12:06A	12:17A	12:38	12:48
11:56P	B12:04A	12:25A	12:37	12:48	1:09	1:19
12:56A	B1:04	1:25	1:36	1:46	2:07	2:17
—	DB2:04	2:25	2:36	2:46	3:07	3:17
—	DB3:04	3:25	3:36	3:46	4:07	4:17

Sunday and Holiday Schedules

Sunday & Holiday schedule in effect on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day.

Horarios de domingo y días feriados

Horarios de domingos y días feriados estan en efecto para New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day y Christmas Day.

Nextrip

Text "metro" and your intersection or stop number to 41411 (example: metro vignes & cesar e chavez or metro 1563). You can also visit metro.net or call 511 and say "Nextrip"

Nextrip

Envíe un mensaje de texto con "Metro" y la intersección de la calle o el número de su parada al 41411. Nextrip le enviará un mensaje de texto con la próxima llegada de cada autobús en esa parada. También puede visitar metro.net o llamar al 511 y decir "Nextrip"

Special Notes

B Waits at Spring & 7th for transfer connections.

C Trip terminates at Cesar Chavez & Vignes, 6 minutes after time shown and does not serve Patsaouras Transit Plaza.

D Trip does not serve Patsaouras Transit Plaza and starts at Cesar Chavez & Vignes 8 minutes before time shown.

Avisos especiales

B *Espera en la Spring & 7th para las conexiones de transferencia.*

C *El viaje termina en César Chávez y Vignes, 6 mins despues de la hora mostrada y no hace parrada en Patsaouras Transit Plaza.*

D *El viaje no parra en Patsaouras Transit Plaza y comienza en César Chávez y Vignes 8 mins antes de la hora mostrada.*

Attachment P

Tree Report

Carlberg ASSOCIATES

Horticulturists and
Registered Consulting
ARBORISTS

WEST WASHINGTON BOULEVARD TREE REPORT
12727 & 12753 WEST WASHINGTON BOULEVARD
CULVER CITY, CALIFORNIA 90066
LOS ANGELES, CALIFORNIA 90066

SUBMITTED TO:

CHRIS HAMPSON
SENIOR PROJECT MANAGER
MERIDIAN CONSULTANTS
920 HAMPSHIRE ROAD. SUITE A5
WESTLAKE VILLAGE, CALIFORNIA 91361

PREPARED BY:

CY CARLBERG, PRINCIPAL
CARLBERG ASSOCIATES
ASCA REGISTERED CONSULTING ARBORIST #405
ISA CERTIFIED ARBORIST #WE 0575A
ISA QUALIFIED TREE RISK ASSESSOR

Santa Monica Office
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Sierra Madre, California 91024
Office: 626.428.5072

www.cycarlberg.com

DECEMBER 10, 2019

TREE REPORT

12727 & 12753 WEST WASHINGTON BOULEVARD, CULVER CITY, CALIFORNIA 90066

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Carlberg ASSOCIATES
Horticulturists and
Registered Consulting
ARBORISTS

December 10, 2019

Chris Hampson
Senior Project Manager
Meridian Consultants
920 Hampshire Road, Suite A5
Westlake Village, California 91361

Re: 12727 & 12753 West Washington Boulevard, Culver City, California 90066

EXECUTIVE SUMMARY

This tree report addresses the 20 private property and 9 rights-of-way trees located at 12727 & 12753 West Washington Boulevard in Culver City and Los Angeles, California. The proprety comprises both the cities of Los Angeles and Culver City; since Culver City does not have an ordinance protecting private property trees, the criteria used for this report follows the City of Los Angeles' Tree Preservation Ordinance. All of the private property trees are proposed to be removed to accommodate grading and construction for this mixed use project. All City of Los Angeles rights-of-way trees are proposed to be preserved; there are no Culver City rights-of-way trees associated with the project.

BACKGROUND AND ASSIGNMENT

This tree report was prepared in accordance with the City of Los Angeles Tree Preservation Ordinance No. 177.404 (Chapter IV, Article 6 of the Los Angeles Municipal Code) and the City's Planning Division requirements. Per the Ordinance, "protected" trees are coast live oak, western sycamore, Southern California black walnut, or California bay laurel with trunk diameters (measured at 4.5 feet above grade) of 4 inches or greater. "Significant" trees are any tree with a trunk diameter of 8 inches or larger. Culver City only "protects" rights-of-way trees.

The 20 private property trees are interspersed throughout the properties. Private property trees #1 through #5 are located on the southern lots which fall under the City of Culver City's jurisdiction. Private property trees #6 through #20 are located on the northern lots and fall under City of Los Angeles' tree protection guidelines (see Fig. 1). None of these private trees are considered protected or significant under the Los Angeles' ordinance. There are a total of 9 rights-of-way trees located along Zanja Street and Meier Street and fall under the City of Los Angeles' jurisdiction.

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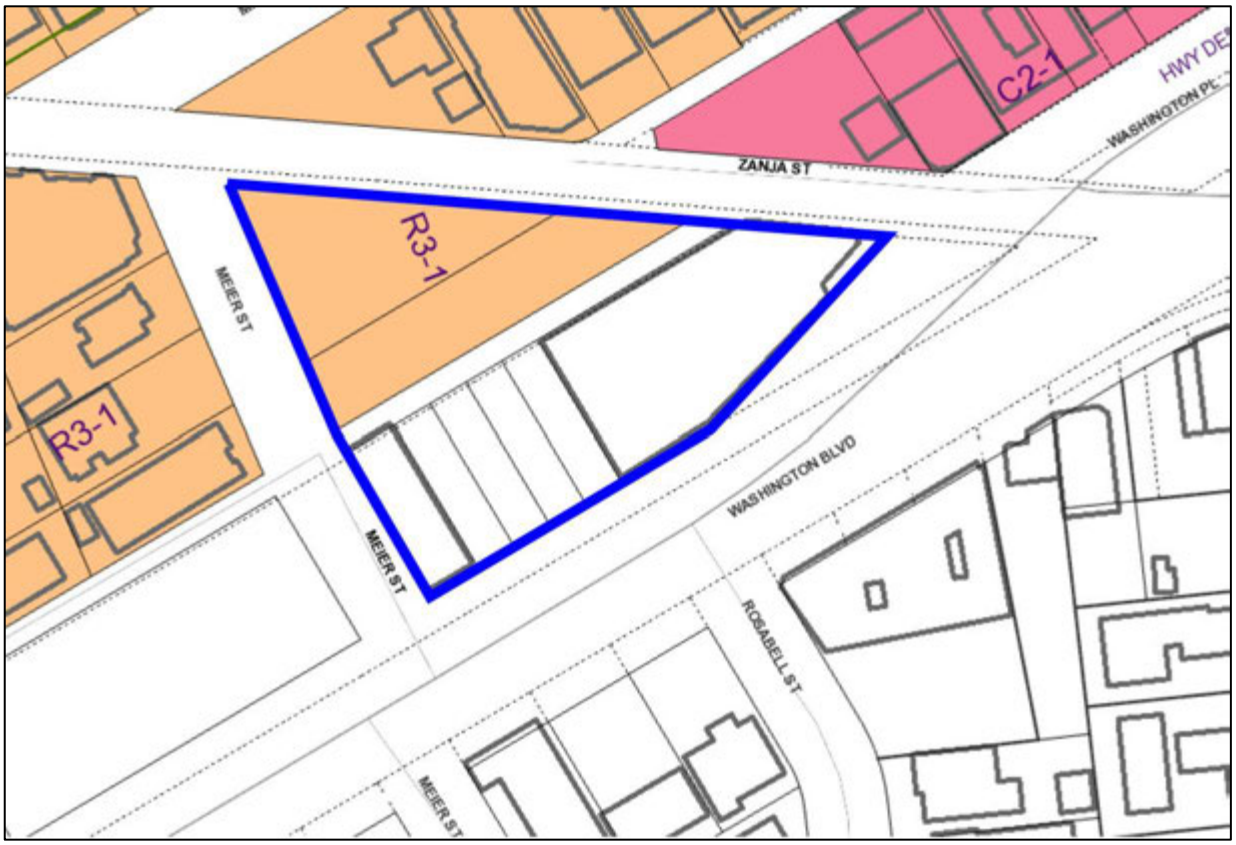

Fig. 1 – Jurisdictional boundaries: City of Los Angeles jurisdiction (orange highlight) and City of Culver City (white).
Image Source: Zimas

Carlberg was retained to evaluate all private property and City rights-of-way trees regardless of size and prepare a Tree Report. This report is based on our site visit of November 15, 2019.

OBSERVATIONS AND DISCUSSION

We inventoried a total of 29 trees of various species throughout the subject properties. Tree trunks were recorded in the field, from grade, and plotted using the ALTA survey (Cal Vada, October 30, 2017) provided to us. All trees were evaluated from the ground, without invasive testing, root crown examination, or any other form of advanced inspection. Captioned photographs and exhibits at the conclusion of this report illustrate site context, tree locations, tree structure, and vigor.

Table 1 is a summary of the tree species comprising the 29 total trees inventoried. Tree locations are graphically represented on the Tree Location Exhibit. All private property trees are proposed to be removed, and the City of LA rights-of-way trees will be preserved. There are no Culver City rights-of-way trees associated with the project.

Please feel welcome to contact me at (310) 451-4804 if you have any immediate questions or concerns.

Respectfully submitted,

Cy Carlberg, Registered Consulting Arborist
Principal, Carlberg Associates

www.cycarlberg.com

This report comprises a total of 17 pages and one exhibit. Unauthorized separation or removal of any portion of this report deems it invalid as a whole. Conditions represented in this report are limited to the inventory date and time. Rating for health and structure do not constitute a health or structural guarantee beyond that date. Risk assessments were not performed for this project.

EXHIBIT A – AERIAL EXHIBIT

12727 & 12753 West Washington Boulevard,
Culver City and Los Angeles, California 90066
Image Source: Zimas

N

EXHIBIT B – REDUCED COPY OF TREE LOCATION EXHIBIT

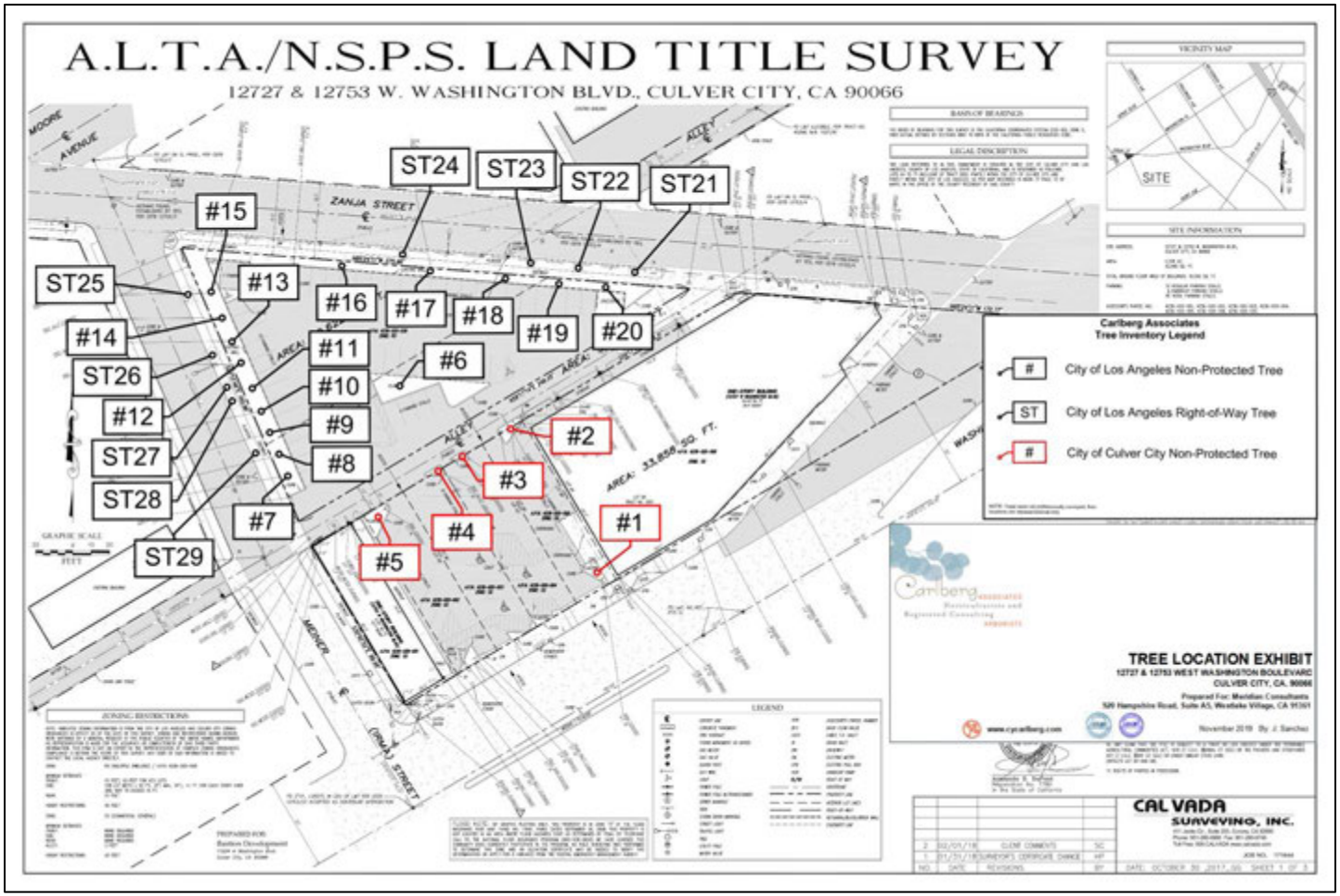

TABLE 1 – INVENTORY OF TREES

Tree #	Common Name	*Botanical Name*	Diameter at 4.5 feet (dbh) (inches)	Height (feet)	Health	Structure	Canopy Spread N/E/S/W	Disposition	Protected or Significant?
1	evergreen pear	*Pyrus kawakamii*	6.7	13	B	B	7/6/4/4	Remove	No
2	evergreen pear	*Pyrus kawakamii*	7.5	13	B	B	3/7/10/6	Remove	No
3	evergreen pear	*Pyrus kawakamii*	7	13	B	B	3/4/7/6	Remove	No
4	evergreen pear	*Pyrus kawakamii*	9	15	B	B	6/9/9/9	Remove	No
5	evergreen pear	*Pyrus kawakamii*	8.5	15	B	B	9/8/7/6	Remove	No
6	olive	*Olea europaea*	4	13	A	A	6/7/7/6	Remove	No
7	strawberry tree	*Arbutus* 'Marina'	3	14	A	A	6/6/6/4	Remove	No
8	strawberry tree	*Arbutus* 'Marina'	3	13	A	A	3/6/6/4	Remove	No
9	strawberry tree	*Arbutus* 'Marina'	2.8	11	B	A	4/6/4/3	Remove	No
10	strawberry tree	*Arbutus* 'Marina'	2	10	B	A	4/4/3/3	Remove	No
11	strawberry tree	*Arbutus* 'Marina'	2	8	B	B	3/6/6/0	Remove	No
12	strawberry tree	*Arbutus* 'Marina'	2.5	10	B	B	4/6/3/3	Remove	No
13	strawberry tree	*Arbutus* 'Marina'	2	8	B	B	3/5/4/3	Remove	No

Tree #	Common Name	*Botanical Name*	Diameter at 4.5 feet (dbh) (inches)	Height (feet)	Health	Structure	Canopy Spread N/E/S/W	Disposition	Protected or Significant?
14	strawberry tree	*Arbutus* 'Marina'	2	12	B	A	2/5/4/3	Remove	No
15	strawberry tree	*Arbutus* 'Marina'	2.5	12	B	B	6/8/3/4	Remove	No
16	strawberry tree	*Arbutus* 'Marina'	2.7	12	A	B	3/4/7/5	Remove	No
17	strawberry tree	*Arbutus* 'Marina'	2.1	10	A	B	2/3/4/3	Remove	No
18	strawberry tree	*Arbutus* 'Marina'	2.3	10	B	B	3/4/4/3	Remove	No
19	strawberry tree	*Arbutus* 'Marina'	2.3	10	B	B	1/3/3/4	Remove	No
20	strawberry tree	*Arbutus* 'Marina'	3	15	B	B	3/4/7/6	Remove	No
ST 21	Australian willow	*Geijera parviflora*	11.8	25	A	B	15/18/15/15	Preserve	City of LA right-of-way tree
ST 22	Australian willow	*Geijera parviflora*	13.5	25	B	B	12/12/15/18	Preserve	City of LA right-of-way tree
ST 23	Australian willow	*Geijera parviflora*	9.4	20	B	B	10/12/15/14	Preserve	City of LA right-of-way tree
ST 24	Australian willow	*Geijera parviflora*	11	23	B	B	14/15/15/16	Preserve	City of LA right-of-way tree
ST 25	silver dollar gum	*Washingtonia robusta*	20.6	35	B	B	21/18/15/21	Preserve	City of LA right-of-way tree

Tree #	Common Name	*Botanical Name*	Diameter at 4.5 feet (dbh) (inches)	Height (feet)	Health	Structure	Canopy Spread N/E/S/W	Disposition	Protected or Significant?
ST 26	silver dollar gum	*Washingtonia robusta*	19.4	35	B	B	10/18/21/21	Preserve	City of LA right-of-way tree
ST 27	silver dollar gum	*Washingtonia robusta*	10.7	20	B	C	13/20/12/0	Preserve	City of LA right-of-way tree
ST 28	silver dollar gum	*Washingtonia robusta*	15.7	35	B	B-	20/18/18/20	Preserve	City of LA right-of-way tree
29	red iron bark	*Eucalyptus sideroxylon*	5	20	B	B	4/10/6/3	Preserve	City of LA right-of-way tree

EXHIBIT C - CAPTIONED TREE PHOTOGRAPHS

Tree 1

Tree 2

Tree 3

Tree 4

Tree 5

Tree 6

Tree 7

Tree 8

Tree 9

Tree 10

Tree 11

Tree 12

Tree 13

Tree 14

Tree 15

Tree 16

Tree 17

Tree 18

Tree 19

Tree 20

ST 21

ST 22

ST 23

ST 24

ST 25

ST 26

ST 27

ST 28

ST 29

HEALTH AND STRUCTURE GRADE DEFINITIONS

Health and structure ratings of the trees are based on the archetype tree of the same species through a subjective evaluation of its physiological health, aesthetic quality, and structural integrity.

Overall physiological condition (health) and structural condition were rated A-F:

Health

A. Outstanding – Exceptional trees of good growth form and vigor for their age class; exhibiting very good to excellent health as evidenced by normal to exceptional shoot growth during current season, good bud development and leaf color, lack of leaf, twig or branch dieback throughout the crown, and the absence of decay, bleeding, or cankers. Common leaf and/or twig pests may be noted at very minor levels.

B. Above average – Good to very good trees that exhibit minor necrotic or physiological symptoms of stress and/or disease; shoot growth is less than reasonably expected, leaf color is less than optimal in some areas, the crown may be thinning, minor levels of leaf, twig, and branch dieback may be present, and minor areas of decay, bleeding, or cankers may be manifesting. Minor amounts of epicormic growth may be present. Minor amounts of fire damage or mechanical damage may be present. Still healthy, but with moderately diminished vigor and vitality. No significant decline noted.

C. Average – Average, moderately good trees whose growth habit and physiological or fire-induced symptoms indicate an equal chance to either decline or continue with good health into the near future. Most of these trees exhibit moderate to significant small deadwood in outer crown areas, decreased shoot growth and diminished leaf color and mass. Some stem and branch dieback is usually present and epicormic growth may be moderate to extensive. Cavities, pockets of decay, relatively significant fire damage, bark exfoliation, or cracks may be present. Moderate to significant amounts of insect or disease symptoms may be present; the tree may be shaded or crowded in such a way that it is expected to negatively impact the lifespan of the tree. Tree may be in early decline.

D. Below Average/Poor - trees whose growth habit and physiological or fire-induced symptoms indicate significant, irreversible decline. Most of these trees exhibit significant dieback of wood in the crown, possibly accompanied by significant epicormic sprouting. Shoot growth and leaf color and mass is either significantly diminished or nonexistent throughout the crown. Cavities, pockets of decay, significant fire damage, bark exfoliation, and/or cracks may be present. Significant amounts of insect or disease symptoms may be present; the tree may be shaded or crowded in such a way that it has negatively impacted the lifespan of the tree. Tree appears to be in irreversible decline.

F. Dead or in spiral of decline – this tree exhibits very little to no signs of life.

Structure

A. Outstanding – Trees with outstanding structure for their species exhibit trunk and branch arrangement and orientation that result in a sturdy form or architecture that resists failure under normal circumstances. The spacing, orientation, and size of the branches relative to the trunk are quintessential for the species and free from defects. No outward sign of decay

or pathological disease is present. Some trees exhibit naturally inherent branching defects, like multiple, narrow points of attachment from one point on the trunk, which would preclude them from achieving an "A" grade.

B. Above average - Trees with good to very good structure for their species. They exhibit trunk and branch arrangement and orientation that result in a relatively sturdy form or architecture that resists failure under normal circumstances, but may have some mechanical damage, over-pruning, or other minor structural defects. The spacing, orientation, and size of the branches relative to the trunk are still in the normal range for the species, but they exhibit a minor degree of defects. Minor, sub-critical levels of decay or pathological disease may be present, but the degree of damage is not yet structurally significant. Trees that exhibit naturally inherent branching defects, like multiple, narrow points of attachment from one point on the trunk, would generally fall in to this category. A small percentage of the canopy may be shaded or crowded, but not in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree.

C. Average - Trees with moderately good structure for their species, but with obvious defects. They exhibit trunk and branch arrangement and orientation that result in a less than sturdy form or architecture, which reduces their resistance to failure under normal circumstances. Moderate levels of mechanical damage, over-pruning, or other structural defects may be present. The spacing, orientation, and size of some of the branches relative to the trunk are not in the normal range for the species. Moderate to significant levels of decay or pathological disease may be present that increase the likelihood of structural instability. Influences such as an excessive trunk lean, slope erosion, root pruning, or other growth-inhibiting factors may be present. A moderate to significant percentage of the canopy may be shaded or crowded in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree. Risk of full or partial failure in the near future appears to be moderately elevated.

D. Well Below Average/Poor - Trees poor structure for their species and with obvious defects. They exhibit trunk and branch arrangement and orientation that result in a significantly less than sturdy form or architecture, significantly reducing their resistance to failure under normal circumstances. Significant levels of mechanical damage, over-pruning, or other structural defects may be present. The spacing, orientation, and size of many of the branches relative to the trunk are not in the normal range for the species. Significant levels of decay or pathological disease may be present that increase the likelihood of structural instability. Influences such as an excessive trunk lean, slope erosion, root pruning, or other growth-inhibiting factors may be present. A significant percentage of the canopy may be shaded or crowded in such a way that it is expected to negatively impact the structural integrity or lifespan of the tree. Risk of full or partial failure in the near future appears to be advanced.

F. Severely Compromised – trees with very poor structure and numerous or severe defects due to growing conditions, historical or recent pruning, mechanical damage, history of limb or trunk failures, advanced and irreparable decay, disease, or severe fire damage. Trees with this rating are in severe, irreparable decline, or are barely alive. Risk of full or partial failures in the near future may be severe.

CERTIFICATION OF PERFORMANCE

I, Cy Carlberg, certify:

- That we have personally inspected the tree(s) and/or the properties referred to in this report and have stated my findings accurately. The extent of the evaluation is stated in the attached report and the Terms of Assignment;
- That we have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved;
- That the analysis, opinions, and conclusions stated herein are our own;
- That our analysis, opinions, and conclusions were developed, and this report has been prepared according to commonly accepted arboricultural practices;
- That no one provided significant professional assistance to the consultant, except as indicated within the report;
- That our compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party.

I further certify that I am an International Society of Arboriculture Certified Arborist, a Qualified Tree Risk Assessor, and have been involved in the practice of arboriculture and the study of trees for over 40 years.

Signed:

Date: December 10, 2019

Cy Carlberg, Registered Consulting Arborist #405
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Education
B.S., Landscape Architecture, California State Polytechnic University, Pomona, 1985
Graduate, Arboricultural Consulting Academy, American Society of Consulting Arborists, Chicago, Illinois, February 2002
Graduate, Municipal Forestry Institute, Lied, Nebraska, 2012

Experience
Consulting Arborist, Carlberg Associates, 1998-present
Manager of Grounds Services, California Institute of Technology, Pasadena, 1992-1998
Director of Grounds, Scripps College, Claremont, 1988-1992

Certificates
Certified Arborist (#WE-0575A), International Society of Arboriculture, 1990
Registered Consulting Arborist (#405), American Society of Consulting Arborists, 2002
Certified Urban Forester (#013), California Urban Forests Council, 2004
Qualified Tree Risk Assessor, International Society of Arboriculture, 2011

AREAS OF EXPERTISE

Ms. Carlberg is experienced in the following areas of tree management and preservation:

- Tree health and risk assessment
- Master Planning
- Historic landscape assessments, preservation plans, reports
- Tree inventories and reports to satisfy jurisdictional requirements
- Expert Testimony
- Post-fire assessment, valuation, and mitigation for trees and native plant communities
- Value assessments for native and non-native trees
- Pest and disease identification
- Guidelines for oak preservation
- Selection of appropriate tree species
- Planting, pruning, and maintenance specifications
- Tree and landscape resource mapping – GPS, GIS, and AutoCAD
- Planning Commission, City Council, and community meetings representation

PREVIOUS CONSULTING EXPERIENCE

Ms. Carlberg has overseen residential and commercial construction projects to prevent damage to protected and specimen trees. She has thirty-five years of experience in arboriculture and horticulture and has performed tree health evaluation, value and risk assessment, and expert testimony for private clients, government agencies, cities, school districts, and colleges. Representative clients include:

The Huntington Library and Botanical Gardens
The Los Angeles Zoo and Botanical Gardens
The Rose Bowl and Brookside Golf Course, Pasadena
Walt Disney Concert Hall and Gardens
The Art Center College of Design, Pasadena
Pepperdine University
Loyola Marymount University
The Claremont Colleges (Pomona, Scripps, CMC, Harvey Mudd, Claremont Graduate University, Pitzer, Claremont University Center)
Quinn, Emanuel, Urquhart and Sullivan (attorneys at law)
Getty Trust – Eames House
Historic Resources Group
The City of Claremont
The City of Beverly Hills
The City of Pasadena
The City of Los Angeles
The City of Santa Monica
Santa Monica/Malibu Unified School District
San Diego Gas & Electric
Los Angeles Department of Water and Power
Rancho Santa Ana Botanic Garden, Claremont
Latham & Watkins, LLP (attorneys at law)
Architectural Resources Group
AHBE Landscape Architects
Moule and Polyzoides, Architects and Urbanists

AFFILIATIONS

Ms. Carlberg serves with the following national, state, and community professional organizations:

- California Urban Forests Council, Board Member, 1995-2006
- Street Tree Seminar, Past President, 2000-present
- American Society of Consulting Arborists Academy, Faculty Member, 2003-2005; 2014
- American Society of Consulting Arborists, Board of Directors, 2013-2015