City of Los Angeles
Department of City Planning • Major Projects
City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012

RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT

SHERMAN OAKS - STUDIO CITY - TOLUCA LAKE - CAHUENGA PASS COMMUNITY PLAN AREA

VOLUME 1 – RECIRCULATED DRAFT EIR SECTIONS 1 TO 6
VOLUME II – APPENDICES ON CD INSIDE BACK COVER

Harvard-Westlake Parking Improvement Plan

Case Number: ENV 2013-0150-EIR; State Clearinghouse No. 2013041033

Project Location: The approximately ~~24.5~~ 25.83-acre Project Site is comprised of two components: 1) Parking Structure/Development Site (approximately ~~5.5~~ 6.83 acres) is located at 3701 N. Coldwater Canyon Avenue (also includes 3683, 3701, 3703, 3705, 3707, 3717, 3719 & 3801 Coldwater Canyon Avenue, 12908, 12916, 12924, 12930 W. Hacienda Drive; and 3666, 3680 N. Potosi Avenue) in Studio City; and 2) the existing ~~Campus for the~~ Harvard-Westlake Upper School Campus (approximately 19 acres) is located at 3700 N. Coldwater Canyon Avenue in Studio City.

Council District: 2

Project Description: This Recirculated Draft EIR is being recirculated to inform the public regarding the following changes in the Project and updated information: 1) Additional property added to the Development Site to the south of the Parking Structure, including the paper street Hacienda Drive which is proposed to be vacated; 2) Addition of a debris basin west of the Parking Structure; 3) Changes in location and height of retaining walls; 4) Addition of deflection walls to the northwest of the Parking Structure; 5) New Final Geologic and Soils Engineering Report and updated Hydrological and LID reports; 6) Supplemental Traffic and Tree reports; 7) Additional consideration of an alternative with subterranean construction; and 8) Other updated information and design refinements. In addition, the requested entitlements have been updated. The basic components of the Project remain as follows: Construction of a new 3-story (4-level), 750-space Parking Structure including ~~an~~ a ~~athletic~~ practice field with lights on top in the RE40 and ~~RE15~~ R1 Zones at 3701 N. Coldwater Canyon Avenue (Parking Structure at the Development Site), to be used by the existing Harvard-Westlake Upper School Campus (Harvard-Westlake Campus or Campus) located across the street in the RE15 and R1 Zones at 3700 N. Coldwater Canyon Avenue in Studio City (collectively the Project Site). A pedestrian bridge is also proposed to cross over Coldwater Canyon Avenue from the Development Site to the Harvard-Westlake Campus. As part of the Project, roadway improvements would be made that would improve the flow of traffic in the Project area as well as pedestrian and vehicle safety.

COMMENTS RECEIVED ON THE 2013 DRAFT EIR AND RECIRCULATED DRAFT EIR WILL BE RESPONDED TO IN THE FINAL EIR. THEREFORE, IF REVIEWERS HAVE THE SAME COMMENTS AS THEY HAD ON THE 2013 DRAFT EIR, THEY NEED NOT SUBMIT THE SAME COMMENTS ON THE RECIRCULATED DRAFT EIR.

APPLICANT:	PREPARED BY:	ON BEHALF OF:
Harvard-Westlake School	Sirius Environmental	The City of Los Angeles Department of City Planning Environmental Analysis Section

February 2016

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EXECUTIVE SUMMARY

This Recirculated Draft Environmental Impact Report (RDEIR) has been prepared to evaluate the potential environmental impacts that could result from a proposed ~~three-level~~ three-story (4-level), 750-space, Parking Structure with a rooftop (lighted) ~~athletic~~ practice field (Parking Structure) and pedestrian bridge across Coldwater Canyon Avenue, located on the approximately ~~24.5~~ 25.83 acre Project Site that is comprised of the approximately ~~5.5~~ 6.83-acre Development Site and the approximately 19-acre ~~Upper School Campus of the~~ Harvard-Westlake School ~~(Harvard-Westlake~~ Campus or ~~Campus)~~ Campus. ~~The Parking Structure would be located on an approximately 5.5 acre Development Site across Coldwater Canyon Avenue from the approximately 19-acre Harvard-Westlake School~~ The Parking Structure would be an accessory use to the Harvard-Westlake Campus that would alleviate current impacts that occur as a result of school-related parking (buses and cars) along Coldwater Canyon Avenue and in the surrounding residential neighborhood. The Project also includes improvements to Coldwater Canyon Avenue adjacent to the Project Site that would improve traffic flow and pedestrian safety along that stretch of Coldwater Canyon Avenue.

In accordance with California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15123, this RDEIR contains a summary of the Proposed Project (referred to in this document as the Project, Proposed Project and Proposed Parking Structure), and its anticipated consequences. More detailed information regarding the Proposed Project and its potential environmental effects are provided in the following sections of this RDEIR, particularly throughout Chapter 3, Environmental Setting Impacts, and Mitigation Measures.

The Harvard-Westlake Parking Improvement Plan RDEIR is being recirculated to inform the public regarding the following changes in the Project and updated information: 1) Additional property added to the Development Site to the south of the Parking Structure, including the paper street Hacienda Drive which is proposed to be vacated; 2) Addition of a debris basin west of the parking structure; 3) Changes in location and height of retaining walls; 4) Addition of deflection walls to the northwest of the Parking Structure; 5) New Final Geologic and Soils Engineering Report and updated Hydrological and LID reports; 6) Supplemental Traffic and Tree reports; 7) Additional consideration of an alternative with subterranean construction; and 8) Other updated information and design refinements. In addition, the requested entitlements have been updated.

The RDEIR identifies new text as underlined and deleted text as strike through (changes in capitalization and corrections of typographical-type errors are not always identified). The EIR has been clarified so that references to Project Site address the entire Campus including where the Parking Structure is proposed to be constructed and references to the Development Site address specifically the portion of the Project Site where the Parking Structure is proposed.

CEQA Guidelines Section 15088.5 requires that a lead agency recirculate an EIR, or portions of an EIR, when significant new information is added to the EIR after public notice for public review of the Draft EIR, but prior to certification. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project, or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponent has declined to implement. While much of the information being added to the DEIR in this RDEIR does not technically represent significant new information, it is nonetheless being recirculated in the interests of providing information to the public and the decisionmakers.

LEAD AGENCY

The City of Los Angeles ~~Planning Department~~ is the Lead Agency for preparation of this RDEIR.

PROJECT LOCATION

The ~~Harvard-Westlake Campus (~~Project Site~~)~~ is located on the east and west sides of Coldwater Canyon Avenue, approximately 0.3 miles south of Ventura Boulevard and 1.3 miles north of Mulholland Drive, in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan area of the City of Los Angeles. The ~~Harvard-Westlake Campus~~ Project Site is approximately ~~24.5~~ 25.83 acres, comprised of two areas: 1) the approximately 19-acre ~~(831,268.4 square feet)~~ Harvard-Westlake Campus, located at 3700 N. Coldwater Canyon Avenue, and generally bounded by Halkirk Street to the north, Coldwater Canyon Avenue to the west, and Hacienda Drive to the south; and 2) the approximately ~~5.5~~ 6.83-acre (~~238,740~~ 297,539.3 square feet pre-dedication) Development Site, comprised of an irregularly shaped portion of the ~~Campus~~ Harvard-Westlake School located on the west side of Coldwater Canyon Avenue (3683, 3701, 3703, 3705, 3707, 3717, 3719 and 3801 N. Coldwater Canyon Avenue; 12908, 12916, 12924, 12930 W. Hacienda Drive; and 3666, 3680 N. Potosi Avenue), directly across from the Harvard-Westlake Campus. The Development Site also includes the paper street Hacienda Drive that is proposed to be vacated where it passes through the Development Site.

PROJECT CHARACTERISTICS

The Proposed Project consists of the development of a three-story (4-level) Parking Structure with 750 parking spaces and a rooftop (lighted) ~~athletic~~ practice field. The Parking Structure would also include approximately 289 square feet structure for a security office. The ~~building~~ Parking Structure would be approximately 45-feet to the field level, or 755 feet above mean sea level (AMSL), and 57 feet (767 feet AMSL) to the top of the facilities building proposed to be located at the north end of the field. The Parking Structure would also feature a 32-foot high catchment fence around the field on top of the structure, which would achieve a height of approximately 77 feet (787 feet AMSL). There would be approximately ~~10~~14 light poles (each with ~~two to three~~ four LED fixtures) that would reach a height of approximately seven feet above the catchment fence, or 39 feet above the field, for a total overall height up to approximately 84 feet (794 feet AMSL).

The proposed Parking Structure would be used for parking purposes only, with no student drop-off and pick-up operations permitted on the Development Site. All student drop-offs and pick-ups would occur on the Harvard-Westlake Campus, in a slightly modified configuration to allow for a safer and more efficient operation for motorists and pedestrians.

The Project would ~~include off-site roadway improvements to Coldwater Canyon Avenue that would facilitate traffic movement through the Project area~~ improve the flow of traffic on Coldwater Canyon Avenue by constructing the following public improvements at no cost to the City or the community: ~~These improvements include:~~

- Provide one northbound through lane and two southbound through lanes on Coldwater Canyon Avenue along the ~~Project~~ Development Site frontage (i.e., addition of one southbound through lane);

- At the intersection of Coldwater Canyon Avenue and the Proposed Project's northerly driveway opposite the relocated Harvard-Westlake driveway, provide:

    - Northbound: One left-turn lane, one through lane and one right-turn lane;
    - Southbound: One left-turn lane, two through lanes and one right-turn lane;
    - Eastbound: One left-turn lane and one optional through/right-turn lane; and
    - Westbound: One left-turn lane and one optional through/right-turn lane;

- Also at the intersection of Coldwater Canyon Avenue and the Proposed Project's northerly driveway opposite the relocated Harvard-Westlake driveway, provide new traffic signal equipment, including left-turn phasing for northbound and southbound Coldwater Canyon Avenue traffic, and LADOT's ATSAC/ATCS equipment with connection to the Coldwater Canyon Avenue intersection at Ventura Boulevard;

- At the intersection of Coldwater Canyon Avenue and the Proposed Project's southerly driveway, provide:

  - Northbound: One through lane (i.e., no left-turns from northbound Coldwater Canyon Avenue to the southerly driveway would be permitted);
  - Southbound: Two through lanes and one right-turn lane; and
  - Eastbound: One optional left-turn/right-lane (controlled by a stop sign, with no left-turns permitted weekdays 7:00 a.m. – 7:00 p.m.).

The Proposed Project would also relocate school bus loading and unloading from Coldwater Canyon Avenue to within the Harvard-Westlake Campus, and eliminate the use of local streets by students and visitors for parking for all but the biggest special events, such as graduation and homecoming.

~~Athletic~~ Practice Field and Lighting

An open, approximately 330-foot long by 195-feet wide, 64,350-square foot ~~athletic~~ practice field comprised of synthetic turf would be located on the top level of the Parking Structure. The rooftop ~~athletic~~ practice field would be used for school-related athletic activities. An approximately ~~2,600~~ 2,582 square foot facility (with equipment room, office and restrooms) would be located on the north end of the field. The ~~athletic~~ practice field would serve as an accessory use to the Harvard-Westlake School. The rooftop ~~athletic~~ practice field would include nighttime lighting to be used as needed up to 8 pm during weekdays (no lights on weekends). The ~~athletic~~ practice field would be part of Harvard-Westlake's athletic program and would relieve the demand and use of the Harvard-Westlake Campus' Ted Slavin Field, which is currently used for practice and game events for numerous sports. There would be no seating or public address system as part of the practice field.

The 32-foot tall catchment fence, proposed around the perimeter ~~of~~ and above the ~~athletic~~ practice field would ensure that loose balls do not affect vehicles driving on Coldwater Canyon Avenue. Lighting for the field would be integrated into the catchment fence with approximately ~~10~~ 14 poles (each with ~~two or three~~ four LED fixtures) located around the perimeter of the field reaching approximately seven feet above the catchment fence. Although the catchment fence is technically a structure, it would primarily consist of netting that would be marginally visible. Lighting would be directed towards the field and would include a state-of-the-art LED lighting system (such as Musco Green Systems) to prevent spillover lighting on to adjacent properties.

The proposed ~~building~~ Parking Structure would also include interior lighting from shielded LED, metal-halide or fluorescent fixtures on motion sensor controls for each level and in segregated areas. All interior lighting point sources would be shielded from exterior view.

Pedestrian Bridge

The Proposed Project also includes a pedestrian bridge crossing over Coldwater Canyon Avenue that would connect the proposed Parking Structure to the Harvard-Westlake Campus. The proposed pedestrian bridge would allow for safe crossing between the Parking Structure and the Harvard-Westlake Campus without stopping vehicles traveling along Coldwater Canyon Avenue. For safety reasons associated with the danger of speeding vehicles currently traveling along Coldwater Canyon Avenue, no pedestrian access to the Development Site would be provided from the street. The pedestrian bridge would be fully accessible in compliance with the requirements of the Americans with Disabilities Act.

The pedestrian bridge would reach a height of approximately 41 feet (approximately 18 feet as measured from the bottom of the bridge to the top of the bridge). The top of the elevator on either end of the bridge would reach approximately 65 feet (West) and 46 feet (East) in height. The bridge would be approximately 163 feet long and 13 feet wide and would provide a minimum vehicular clearance of approximately 25 feet 7 inches above Coldwater Canyon Avenue. Connection to the pedestrian bridge would be provided at Level 2 of the proposed Parking Structure and a bridge landing would be constructed on the Harvard-Westlake Campus. Pedestrians would be able to access the Harvard-Westlake Campus from the Parking Structure, and vice versa, only via the proposed pedestrian bridge crossing Coldwater Canyon Avenue. The pedestrian bridge would be enclosed with a metal screen over Coldwater Canyon Avenue (between the elevator towers) to prevent objects from ~~being thrown~~ falling from the pedestrian bridge. The pedestrian bridge would be secured when the Harvard-Westlake School is closed to prevent unauthorized access to the pedestrian bridge.

Retaining Walls

~~Two retaining walls are also proposed on the Development Site to secure the hillside to the west. The primary retaining wall would be located on three sides (north, west and south) of the Parking Structure. Along the rear (west side) of the Parking Structure, the retaining wall would step back from east to west at the third level of the Parking Structure and would vary in height from 50 feet to 87 feet. The south face of the retaining wall would vary in height from 20 feet to 60 feet (from east to west), and the north face of the wall would vary in height from 30 feet to 70 feet (from east to west). The second retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This retaining wall would vary in height from 4 feet to 28 feet (from north to south). Due to the topography of the Development Site, the retaining walls are necessary to protect the adjacent hillsides and to construct the Parking Structure.~~

Four soil nail retaining walls are proposed on the Development Site in order to protect the adjacent hillsides and to construct the Parking Structure. The first soil nail retaining wall is located along the rear (west side) of the Parking Structure and is the lower portion of a stepped wall design along that section. It varies in height from 28 feet to 30 feet (south to north). The second soil nail retaining wall is the upper portion of the stepped retaining wall along the west side of the Parking Structure and also extends around the north and south sides of the Parking Structure. The south face of the second soil nail retaining wall would vary in height from 18 feet to 58 feet (from east to west), and at its eastern endpoint is directly abutted by a conventional retaining wall that gradually transitions to grade along the proposed southern access road. The west face of the second soil nail retaining wall varies from 52 feet to 90 feet in height (including the height of the first soil nail retaining wall), and the north face from 46 feet to 62 feet (from east to west). The third soil nail retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This soil nail retaining wall would vary in height from 17 to 44 feet (from north to south). The northern end of the third soil nail retaining wall terminates at an energy dissipation structure that, along with flow-through planters, treats and controls the flow of storm water so that it can be safely discharged onto Coldwater Canyon Avenue. The fourth soil nail retaining wall would be on the south end behind the south side of the second soil nail retaining wall and would vary in height from 4 feet to 23 feet (from east to west). All retaining wall height measurements include a 3-foot high protective fence.

The design of the retaining walls is intended to blend into the natural hillside area through the use of textured and colored concrete. The retaining walls also maximize the amount of open space areas to the west of the Parking Structure within the steep hillside that has been designated as “Desirable Open Space” on the Community Plan Land Use Map.

Debris Basin & Deflection Walls

A debris basin is proposed to be located in the southwest corner of the Development Site. The debris basin would be earthen material. The debris basin would be surrounded by trees (within the newly landscaped area) that would be a mix of native vegetation (oaks) and other landscape trees. Its purpose is to collect and discharge water or other surficial runoff, such as might occur during a heavy rain event, from the hillside areas to the south and west. Similarly, ten deflection walls are also proposed (average length of 13 feet and ranging in height from 18 inches to three feet) on the northwest side of the Development Site. They would be installed along a 30-degree angle to the adjacent ascending topography and would deflect surficial runoff into a downstream debris channel to maintain positive flow.

Landscaping

The Proposed Project would include new landscaping and permeable area, or be undisturbed ~~site~~ except for planting new native vegetation/mitigation trees ~~vegetation~~ on approximately ~~60%~~ 63.98% of the Development Site. The maximum proposed building footprint~~, or maximum lot coverage~~, is proposed to be 28.12% ~~35.1%~~, plus an additional approximate 4.69% ~~4.5%~~ of driveway and new street paving ~~hardscape areas~~. Approximately ~~39.9%~~ 33.55% of the Development Site would be undisturbed ~~site~~ except for planting new native ~~remain with existing~~ vegetation/mitigation trees, and approximately 30.43% ~~20.5%~~ of the Development Site would be planted with new drought tolerant landscaping and permeable area ~~newly landscaped using native vegetation~~. ~~Additional landscaping is also proposed outside of the property lines along Coldwater Canyon Avenue.~~ The vegetation would be designed to screen the ~~new~~ Parking Structure and debris basin and minimize its appearance.

The Harvard-Westlake Campus ~~School~~ main entrance driveway would also include new landscaping to provide an attractive entrance to the Harvard-Westlake School.

Of the ~~315~~ 338 protected trees located on the Development Site, ~~129~~ 147 are proposed to be removed (~~12~~ 13 oaks and ~~117~~ 134 walnuts), ~~26~~ 20 are proposed to sustain permanent encroachment and ~~160~~ 171 are proposed to be preserved in place.[1]

The City requires that all protected trees that are removed be mitigated upon completion of construction at a 2 to 1 ratio (City of Los Angeles Municipal Code 17.05R4(a)). However, the Harvard-Westlake School proposes to replace all removed protected trees at a 4 to 1 ratio, which is consistent with City practices and exceeds the actual minimum requirements. Trees that the City determines to be dead (i.e., health grade “F”) do not need to be replaced. Based on the tree inventory and associated condition grades, the 132 protected, non-dead trees to be removed will be replaced with 528 mitigation trees. In addition, the City requires all non-protected trees that are significant in size that are removed to be replaced at a 1 to 1 ratio. The School will replace all non-protected trees that are significant in size at a 1 to 1 ratio. ~~To comply with the current Board of Public Works policy of requiring the replacement of protected trees at a 4:1 replacement ratio, the 516 mitigation trees (species to be approved by the City’s Urban Forrester) are proposed to be planted on the open space areas of the Development Site (as noted above approximately 60% of the Development Site would be open space) or other locations as determined by the Forestry Division.~~ See Section 3.3 for a more detailed discussion of impacts to protected trees and biological resources.

1 The number of protected trees impacted by the Project was revised based on an updated tree count (see Appendix ~~D.2A~~ D.3) because the construction footprint was revised to reflect an additional 15 feet of clear area atop the proposed retaining walls and the Development Site was expanded to include the paper street Hacienda Drive and lots to the south.

Given the significantly diseased condition of most of the walnut trees to be removed and the fact that there is currently no treatment available for the ~~“~~thousand cankers disease~~”~~ (TCD) from which they suffer, mitigation is not proposed to include planting of any new Southern California black walnuts.

Changes to Harvard-Westlake Campus

As part of the Proposed Project, the Harvard-Westlake ~~School~~ Campus main entrance driveway would be relocated approximately 37 feet to the south along Coldwater Canyon Avenue to align with the proposed northerly ~~Project~~ Parking Structure driveway (this would result in the loss of 140 parking spaces from the parking lots south of, and along, the main entrance driveway). Similar to the existing main entrance driveway, the proposed relocated intersection with the northerly ~~Project~~ Parking Structure driveway would be controlled by a traffic signal, with new traffic signal equipment provided based on LADOT requirements. The east landing of the pedestrian bridge would be constructed on the Harvard-Westlake Campus. A new pedestrian promenade would be created from the bridge in to the center of the Harvard-Westlake Campus.

A bus pick-up/drop-off zone would be provided on the Harvard-Westlake Campus in an existing parking lot located at the south end of the Harvard-Westlake Campus (Southern Parking Lot), which would result in the elimination of the use of approximately 103 parking spaces from the Harvard-Westlake Campus. However, these 103 parking spaces would remain as overflow parking, as needed, for special events. Special events do not usually occur at the same time as regular bus activity. During special events, associated bus service (team and event buses) would use the ~~North Driveway~~ north driveway (as at present).

Through the reconfiguration of the existing main entrance driveway into the Harvard-Westlake Campus and the resulting removal of 140 parking spaces from parking lots south of, and along, the main entrance driveway, and the 103 parking spaces displaced within the Southern Parking Lot, a total of 335 surface parking spaces would remain on the Harvard-Westlake Campus. With the development of the 750-space Parking Structure and the 335 remaining parking spaces, a total of 1,085 parking spaces would be provided on the Harvard-Westlake ~~Campus~~ School. Approximately ~~121~~ 104 off-site spaces (approximately 36 on Coldwater Canyon Avenue, 40 in the St. Michael’s Church parking lot and approximately ~~45~~ 28 spaces in the neighborhood) would no longer be used by the Harvard-Westlake School except for special events such as graduation and homecoming. ~~See~~ **Table 2-1** in the Project Description summarizes on-campus available parking under existing and Proposed Project conditions. **Figure 3.8-1** Existing Parking in Section 3.8 Transportation, Circulation and Parking, shows current parking locations.

PROJECT OBJECTIVES

The 578 parking spaces currently provided on the Harvard-Westlake Campus do not accommodate the parking demand generated by the Harvard-Westlake School. The Harvard-Westlake Campus currently has one playing field (Ted Slavin Field), which cannot accommodate practices and games related to all of the numerous sports for boys and girls offered at the Harvard-Westlake School, such as football, lacrosse, field hockey, soccer and track and field. Many of the Harvard-Westlake School teams currently practice off-site.

The Proposed Project~~, which consists of the construction of a 750 space Parking Structure with rooftop athletic field,~~ is guided by the following goals and objectives (see Chapter 2, Project Description for further details):

- Increase on-site parking supply for the Harvard-Westlake Campus for regular school use, as well as for typical school-related activities outside of regular school hours, essentially eliminating the need for school-related vehicles to park on-street, either on Coldwater Canyon Avenue or in the residential neighborhood north of the Harvard-Westlake Campus.

- Improve area circulation by removing vehicles and buses parking on Coldwater Canyon Avenue and on other nearby residential streets.

- Improve the flow of traffic on Coldwater Canyon Avenue by constructing public improvements at no cost to the City or to the community.

- Enhance safety and security associated with vehicular and pedestrian circulation on the Harvard-Westlake Campus and in the surrounding area, including the relocation of:
    - Cars that currently park off-campus along Coldwater Canyon Avenue, and
    - School bus drop-off/pick-up operations on-site.

- Enhance ~~playing~~ practice field facilities to increase opportunities for recreational activities on campus.

ENVIRONMENTAL REVIEW AND PROJECT APPROVAL

The formal environmental review process started with publication of a Notice of Preparation (NOP) that circulated from April ~~11~~12, 2013 to May 13, 2013. A scoping meeting was held April 25, 2013. The NOP letters and comments received during the NOP comment period and at the scoping meeting are included in Appendix A of this RDEIR.

~~This~~The DEIR ~~is being~~ was circulated for a ~~45~~ 66-day public comment period. This RDEIR is being circulated for a 47-day public comment period, from February 4, 2016 to March 21, 2016. Following the public comment period on the RDEIR, a Final EIR will be prepared that will include responses to the comments received on both the DEIR and the RDEIR ~~raised regarding this DEIR~~.

The Harvard-Westlake Parking Improvement Plan RDEIR is being recirculated to inform the public regarding the following changes in the Project and updated information: 1) Additional property added to the Development Site to the south of the Parking Structure, including the paper street Hacienda Drive, which is proposed to be vacated; 2) Addition of a debris basin west of the parking structure; 3) Changes in location and height of retaining walls; 4) Addition of deflection walls to the northwest of the Parking Structure; 5) New Final Geologic and Soils Engineering Report and updated Hydrological and LID reports; 6) Supplemental Traffic and Tree Reports; 7) Additional consideration of an alternative with subterranean construction; and 8) Other updated information and design refinements. In addition, the requested entitlements have been updated.

This RDEIR presents the updated results of the environmental analysis prepared for the Proposed Project. This document addresses potential Project environmental impacts, identifies appropriate mitigation measures and identifies any residual significant impacts after application of mitigation measures.

The Proposed Project is subject to review under the requirements of CEQA. The purpose of an EIR is to identify all potentially significant effects of a project on the physical environment, to determine the extent to which those effects could be reduced or avoided, and to identify and evaluate reasonable alternatives to the Project. The following discretionary actions are requested (see Chapter 2, Project Description for further details):

1. Vesting Conditional Use, pursuant to LAMC Section 12.24.T.3(b), a Conditional Use to permit the construction of a three-story parking structure with 750 parking spaces and a rooftop ~~athletic~~ practice field with a protective fence, netting and lighting, in the RE40-1-H and ~~RE15-1-H~~ R1-1 Zones, as accessory uses to the Harvard-Westlake ~~Campus~~ School. As part of the Conditional Use, minor revisions to the Site Plan for the Harvard-Westlake Campus are also requested to allow for a pedestrian bridge and bridge landing on the east side of Coldwater Canyon Avenue, the relocation of

the Harvard-Westlake Campus' main driveway approximately 37 feet to the south off of Coldwater Canyon Avenue, minor alterations to the parking lot south of the main driveway (the Senior Parking Lot), and landscaping in the Senior Parking Lot.

A. Proposed Parking Structure: Pursuant to LAMC Section 12.24.F., height and area regulations (in conjunction with the requested Conditional Use for the Parking Structure):

i. Encroachments into portions of the front yard setback area (along Coldwater Canyon Avenue), to allow for the following setbacks, in lieu of the 25-foot front setback otherwise required by LAMC Section 12.21 C.10-1.

a. A 20-foot front yard setback for the Parking Structure wall, a 13' 3" front yard setback for the ~~athletic~~ practice field, and an 11' 1" front yard setback for the fence support poles;

b. A 15-foot front yard setback for the proposed retaining wall;

c. A zero-foot front yard setback for the pedestrian bridge and ancillary bridge structures;

d. A zero-foot front yard setback for the service access ramp needed for Fire Department access from Coldwater Canyon Avenue.

ii. Encroachments into the southerly and southwesterly side yard setback areas, to allow for the following setbacks, in lieu of the 17-foot side yard setback otherwise required by LAMC Section 12.21 C.10-1.

a. A zero-foot southerly side yard setback to accommodate a service access ramp needed for ~~Fire Department~~ service and emergency access from Coldwater Canyon Avenue; and

b. Zero-foot southerly and southwesterly side yard setbacks for a portion of the Parking Structure and retaining wall.

iii. The following maximum heights for the Parking Structure and ancillary structures located on portions of the Development Site, in lieu of the 30-foot height limit otherwise required by LAMC Section 12.21 C.10-4.

a. Approximately 41 feet 3 inches to the top of the pedestrian bridge,

b. Approximately 64 feet 11 inches to the top of the elevator tower on the west side of the pedestrian bridge (the West Landing),

c. Approximately 44 feet 6 inches to the top slab of the Parking Structure,

d. Approximately 56 feet 6 inches to the top of the rooftop equipment room/offices on the Parking Structure,

e. Approximately 76 feet 6 inches to the top of the catchment fence on the rooftop of the Parking Structure,

f. Approximately 83 feet 6 inches to the top of the field lights secured above the catchment fence, and

g. Approximately ~~87~~ 90 feet 5 inches (maximum height of the tallest wall) for retaining walls including 3 feet of fencing atop the wall.

iv. A maximum grading quantity of approximately ~~3,000~~ 2,500 cubic yards in a Hillside Area on a lot in the ~~RE15~~ RE40-1-H Zone, in lieu of the 1,600 cubic yard maximum grading limit otherwise required by LAMC Section 12.21 C.10(f)(1), (or such amount as may be increased pursuant to LAMC Sections12.21 C.10(f)(3) and (4). (The Project would involve grading and export of a total of ~~135,000~~ 137,000 cubic yards [to be conservative 140,000 cubic yards is analyzed in the RDEIR]; however, ~~132,000~~ 134,500 cubic yards are exempted from grading limitations pursuant to LAMC Section 12.21 C.10(f)(3).)

v. A maximum quantity of earth export of approximately ~~3,000~~ 2,500 cubic yards in a Hillside Area, in lieu of the 1,000 cubic yard export limit otherwise required by LAMC Section 12.21 C.10(f)(2)(i), or such amount as may be increased pursuant to LAMC Sections12.21 C.10(f)(3) and (4). (The Project would involve export of a total of ~~135,000~~ 137,000 cubic yards [to be conservative 140,000 cubic yards is analyzed in the RDEIR]; however, ~~132,000~~ 134,500 cubic yards are exempted from earth transport limitations pursuant to LAMC Section 12.21 C.10(f)(3).)

vi. A maximum residential floor area of approximately 79,261 square feet in a Hillside Area, in lieu of the maximum residential floor area limits otherwise required by the Baseline Hillside Ordinance (LAMC Section 12.21 C.10(b). The Project would provide the following square footages allocated among the two zoning designations that comprise the Development Site: a) 18,788.15 square feet (R1-1); and b) 60,472.96 (RE40-1-H).

B. Main Portion of Campus: Pursuant to LAMC Section 12.24.F., related to height and area regulations (in conjunction with the requested Conditional Use Permit):

i. To allow for the bridge and bridge landing (the East Landing) to observe a zero-foot front yard setback into portions of the front yard setback area (along Coldwater Canyon Avenue), in lieu of the 25-foot front setback otherwise required by LAMC Section 12.21 C.10-1, and

ii. To allow for the a maximum height of approximately 45 feet 7 inches at the top of the East Landing;

2. Waiver of the Tentative Map Requirement under LAMC Section 91.7006.8.2, pursuant to the Department of City Planning's, Filing Procedures for Review of Grading Plans in Hillside Areas Having an Area In Excess of 60,000 square feet, dated January 11, 2012.

In addition to the Planning approvals identified above, the following approvals have been requested from other City agencies:

1. A Revocable Permit from the City of Los Angeles Board of Public Works to allow for a pedestrian bridge to cross Coldwater Canyon Avenue and be located within the front yard setback area along Coldwater Canyon Avenue.

2. An Airspace Vacation from the City of Los Angeles to allow a pedestrian bridge to cross Coldwater Canyon Avenue and be located within the front yard setback area along Coldwater Canyon Avenue.

3. Approval from the City of Los Angeles to allow for the vacation of paper street Hacienda Drive.

4. Approval from the City of Los Angeles Cultural Affairs Commission for the design of the pedestrian bridge.

5. Approvals and permits from the City of Los Angeles for Project construction activities including, but not limited to the following: demolition, removal of protected trees, haul route, excavation, shoring, grading, foundation, and building and interior improvements.

Study Issues

Based on preliminary review of potential issues in the Initial Study (see **Appendix B**) and comments received during the scoping process as well as comments received on the Draft EIR, this RDEIR includes an analysis of the following environmental issue areas: Aesthetics; Air Quality and Greenhouse Gas, Cultural Resources (Archeological, Paleontological, and Human Remains Resources); Biological Resources; Geology, Soils and Hydrology (including Storm Water Drainage); Land Use; Noise, Transportation, Circulation and Parking. Other possible effects of the Project, (for example Cultural Resources (Historic Resources) and why these impacts were determined not to be significant are addressed in the Initial Study (**Appendix B**) and the General Impact Categories chapter of this EIR in Section 4.

AREAS OF CONTROVERSY

Comments received during the scoping period including at the public scoping meeting held April 25, 2013, as well as comments received on the Draft EIR, indicate that potential areas of controversy include the following:

- Non-CEQA issues: Need for the Project; Enrollment; Permit violations.
- Traffic impacts along Coldwater Canyon Avenue.
- Neighborhood intrusion (a parking structure and ~~athletic~~ practice field in a residential area).
- Existing noise problems (whistles) and anticipated noise impacts (primarily from athletic practice activities) to neighboring residential uses.
- Construction and operational noise from the Parking Structure.
- Air quality impacts to surrounding uses.
- Impacts to trees and wildlife.
- Impacts to views from Coldwater Canyon Avenue and residences that surround the Project Site (north and east of the Project Site).
- Geological and hydrological impacts.
- Impacts to property values.
- Project location, desirable open space designation and zoning designation.
- Lighting impacts to adjacent land uses (residential and open space uses).
- Alternative locations, alternatives with fewer impacts, subsurface alternatives.
- Fire department access to properties on Potosi
- Necessity of vacation of paper street Hacienda Drive.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1 provides a summary of Project impacts and mitigation measures and identifies level of significance after mitigation. **Table ES-2** provides a summary of issue areas addressed in comments on the NOP. Copies of the NOP and comment letters received can be found in **Appendix A**.

SUMMARY OF PROJECT ALTERNATIVES

As required by Section 15126.6 of the CEQA Guidelines, this RDEIR examines a range of reasonable alternatives to the proposed Project. The analysis of Project alternatives in this ~~EIR~~ RDEIR focuses on a reasonable range of alternatives consistent with CEQA Guidelines Section 15126.6(a). Several alternatives were considered but rejected from further analysis:

Off-Site (Leased) Parking. This RDEIR does not analyze an alternative on property that the Harvard-Westlake School does not own (for example leasing parking along Ventura Boulevard or elsewhere). Such an alternative is speculative and infeasible at this time. In addition, parking facilities on Ventura Boulevard would cause logistical problems for students, faculty and staff in getting to campus in a timely fashion, potentially resulting in more traffic circulating between the campus and any facility on Ventura Boulevard. In addition, it is anticipated that such an alternative would not alleviate parking in the neighborhood as students would prefer to park closer to the Harvard-Westlake School without the need of taking a shuttle.

Increased Transportation Demand Management (TDM). The Harvard-Westlake School has a complicated program of activities that includes a variety of after school programs. Most students and faculty arrive at the same time in the morning, but the end of the day involves numerous activities with staggered end times resulting in limitations on how much carpooling, transit and busing can be done by students and faculty. In addition, the Harvard-Westlake Campus has numerous events where guests come ~~to campus~~ for relatively brief periods of time and need parking (e.g. parent teacher meetings, committee meetings, etc.). Increasing TDM is a mitigation measure that could help reduce demand for parking but not to the extent that additional parking would not be needed. Existing TDM at the Harvard-Westlake School and the potential to increase TDM is discussed in Section 3.8 Transportation Circulation and Parking.

Subsurface Parking East of Coldwater Avenue and/or Subsurface Tunnel Under Coldwater Canyon Avenue. The Harvard-Westlake Campus is located at a low-point, or a sump, of an estimated 140-acre watershed, which makes the construction of a subterranean parking structure on the Harvard-Westlake Campus infeasible. The Los Angeles County (County) Department of Public Works Hydraulic and Hydrology Manual requires that new construction within a sump be designed to withstand the discharge from a 50-year storm event. (Los Angeles County Department of Public Works Hydraulic and Hydrology Manual.) Using the County's methodology, including rainfall data, it is estimated that the potential runoff from a 50-year storm would be approximately 440 cubic feet per second. Currently, there is a 24-inch reinforced concrete pipe storm drain, which has a capacity to drain less than 20 cubic feet per second. To satisfy the County's minimum requirement, significant additional infrastructure would need to be constructed beneath the Campus and Coldwater Canyon Avenue to convey the large flow differential; pipe sizes in the range of 60 to 84 inches in diameter could be required. Installation of a large storm drain pipe in Coldwater Canyon Avenue is not feasible due to the existing utility infrastructure (including the recently installed 60-inch LADWP water line, three-inch gas line, six-inch water line, 51-inch water line, eight-inch sewer and AT&T telephone infrastructure among others) already occupying the space (i.e. there is not sufficient space to install the required infrastructure). Because of the required infrastructure and the existing infrastructure improvements beneath Coldwater Canyon Avenue and the resultant space limitations, it is not feasible to construct the additional required infrastructure to drain discharge from a 50-year storm event.

In addition, the Campus has a high water table, which creates potential safety concerns due to the potential higher incidence of flooding. The potential for rapid flooding with little warning and reliance on mechanical pumping of runoff increase the safety risk, making subterranean parking infeasible (on either side of Coldwater Canyon Avenue).

~~Constructing a partial subterranean parking structure (one subterranean level, one at grade level, and one above grade level and an athletic field on the top) on the west side of Coldwater Canyon Avenue would lower~~

~~the height of the top of the structure by approximately 12 feet as compared to the project; however, this alternative would require that the base of the retaining wall be 12 feet deeper as compared to the Project, which would result in the retaining wall becoming more visible from Coldwater Canyon because the structure would be lower and the retaining wall would be set back further from Coldwater Canyon Avenue. In addition, this alternative would increase grading by approximately 44,000 cubic yards. The construction period would be extended by approximately 20 weeks (8 weeks for grading and 12 weeks for building construction) as compared to the Project. In addition mechanical ventilation of the subsurface parking would be required.~~

With respect to building a subterranean tunnel beneath Coldwater Canyon Avenue to connect the Parking Structure and the ~~west side of the~~ Campus, there are large-capacity infrastructure improvements beneath Coldwater Canyon Avenue, including the DWP's recently constructed city trunk water line, data/phone lines and storm water facilities, which make the construction of a tunnel under Coldwater Canyon Avenue infeasible. Additionally there are safety concerns associated with ~~a high water table and~~ potential flooding during storms.

Practice Field Only. Without providing increased parking, most of the Project objectives would not be satisfied and therefore such an alternative is not required under CEQA. An alternative with reduced parking is considered in the analysis (see Alternative 3).

Smaller Parking Structures Throughout Campus. There are three main surface parking areas on-campus. None of them are large enough to allow construction of a practice field, which is one of the key objectives of the Proposed Project. Therefore, none of these locations is desirable for the Harvard-Westlake School. With respect to each of these parking areas: 1) development of the Southern Lot is addressed in Alternative 5 below; 2) development of a multi-story structure on the Senior Lot (north of the Southern Lot) would impede student circulation on the Campus and would result in similar impacts to development of the Southern Lot potentially with additional impacts (visual quality, lighting and noise) to more residential uses to the east of Campus; and 3) development of the small lot at the northeast corner of Campus (Rugby Lot) would be severely constrained – access is by a single lane driveway that is bordered by buildings, topography and an adjacent ditch. In addition, surrounding residential development is located immediately adjacent to the parking area – all of these factors make development of a multi-story structure in this location infeasible.

Two-Stories Above Grade, One Story Below Grade on the Development Site. This alternative would include one subterranean level (11 feet 4 inches below grade) and two stories above grade (plus rooftop practice field). The same area of the Development Site would be disturbed. Construction activities would be similar to the Project. It would require an additional 56,000 cubic yards of excavated soil to be removed (for a total of 196,000 cubic yards). The height of the structure would be reduced by approximately 11 feet 4 inches from 44 feet 6 inches to 33 feet 2 inches, but the height of the retaining walls would not change. Therefore views of the Development Site would be similar to the Project inasmuch as the Parking Structure (in the Proposed Project) or the retaining wall (in this alternative) would be visible on the Development Site. However, since the Parking Structure would be lower than the retaining walls in this alternative, the retaining walls behind the Parking Structure would be more visible than in the Project. Therefore this alternative was not explored further because it would not reduce the level of significance of any environmental impact as compared to the Project. In addition, as for the Harvard-Westlake Campus, the potential for rapid flooding with little warning and reliance on mechanical pumping of runoff ~~increase~~ increases the safety risk, making subterranean parking infeasible. Also, mechanical ventilation of the subsurface parking would be required which would increase energy use and ventilation exhaust would have to be carefully located to avoid noise and air quality impacts.

The following alternatives address the CEQA-required No Project Alternative and provide a reasonable range of alternatives; these alternatives would reduce the potential environmental impacts of the Project:

1. No Project. For the short-term the ~~Project~~ Development Site would remain vacant and used for construction equipment storage.

2. Existing Zoning (4 new homes). This alternative would result in continuation of school parking ~~on~~ on Coldwater Canyon Avenue and in adjacent neighborhoods. The Development Site would be improved with residential use consistent with the existing zoning.

3. Reduced Development (Two-Level Structure, No ~~Athletic~~ Practice Field, No Pedestrian Bridge). This alternative would involve the construction of a two-level parking structure containing approximately 500 spaces. This alternative would not include ~~an~~ a ~~athletic~~ practice field (and would therefore not include lighting on the top deck). There would be no activity on the roof of this structure. This alternative would not include a pedestrian bridge. Rather it would include a cross walk (with a signal). This alternative would not result in changes to the ~~St. Michael's lot~~ Southern Parking Lot. Parking would continue in this lot and bus staging would remain on Coldwater Canyon Avenue. There would be safety concerns associated with the at-grade crossing and on-going bus operations in the immediate vicinity of the crossing. The Project would result in significant impacts related to 1) biological resources: two sensitive species and cumulative impacts related to loss of oak woodland habitat and impact on associated sensitive species who forage in such habitat; and 2) construction noise ~~and air quality~~. A two-level structure could incrementally reduce ~~these~~ noise impacts; impacts to biological resources would be similar.~~, but~~ However, parking on Coldwater Canyon Avenue and the neighborhood to the north would continue to occur under this alternative. This alternative would not fully satisfy Project objectives.

4. Smaller Footprint Parking Structure, No ~~Athletic~~ Practice Field, Rooftop Parking. This alternative would have the same number of spaces as the Project. Parking would occur on the roof level, therefore the footprint of the structure would be smaller than for the Proposed Project as there would be four levels of parking (not including rooftop parking) as compared to three under the Proposed Project. This alternative would not satisfy the Project objectives related to increasing opportunities for recreational activities ~~on campus~~ for the Harvard-Westlake School.

5. East Side of Coldwater Canyon Avenue Alternative – Southern Parking Lot, No Practice Field, Rooftop Parking. This alternative considers placing the parking structure on the Harvard-Westlake Campus on the Southern Parking Lot. Due to the smaller size of this site, the parking structure would be 10 stories plus rooftop parking.

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
3.1 Aesthetics		
The Project would have a significant impact upon the visual character in the vicinity of the Development Site along Coldwater Canyon Avenue, a City-designated Secondary Scenic Highway.	RC-AES-1: Every building, structure, or portion thereof, shall be maintained in a safe and sanitary condition and good repair, and free from graffiti, debris, rubbish, garbage, trash, overgrown vegetation or other similar material, pursuant to LAMC Section 91.8104. RC-AES-2: Building materials shall be of neutral colors designed to blend in with the surrounding hillside. The exterior of all buildings and fences shall be kept free from graffiti when such graffiti is visible from a public street or alley, pursuant to LAMC Section 91.8104.15.	Less than significant.
The Project would have a significant impact upon views along Coldwater Canyon Avenue and from surrounding areas, which include the Coldwater Canyon Open Space and a designated Scenic Corridor approximately ~~185~~ 34 feet south of the Development Site (corresponding to the outer corridor ½ mile buffer of the Mulholland Scenic Parkway Specific Plan). The Development Site is topographically separated from the open space area which is generally about 100 feet to 200 feet higher than the Development Site.	PDF-AES-1: All open areas not used for buildings, driveways, or athletic facilities shall be attractively landscaped and maintained in accordance with a landscape plan, including an automatic irrigation plan, prepared by a licensed landscape architect to the satisfaction of the decisionmaker. Natural areas shall be maintained as much as feasible in their natural state. The plant palette shall include extensive use of native vegetation. At a minimum, non-protected trees (4" diameter at breast height – dbh) to be removed from the Project Site shall be replaced at a ratio of ~~1:1~~ 2:1 (protected trees are addressed in Section 3.3 Biological Resources, they will be required to be replaced at a ratio of 4:1). Views of the Parking Structure from off-site areas shall be screened to the maximum extent feasible so that views of the Development Site contain extensive vegetation and views of parking levels and the lighted ~~athletic~~ practice field are screened to the extent feasible (once plantings have reached maturity, which in general shall be within five years). PDF-AES-2: The orientation of the Parking Structure (along Coldwater Canyon Avenue close to the roadway) allows for the Development Site to maintain a large amount of open space to the rear, where the property shall remain in its natural vegetated state (trees planted to mitigate the loss of Protected Trees would be planted in this area) adjacent to land owned by the Mountains Recreation and Conservation Authority. PDF-AES-3: The proposed retaining walls shall be constructed with earth tone textures and finishes. The proposed cast-in-place concrete walls would be provided with a natural appearing rock finish and colored to match the indigenous rock.	Less than significant.
The Project would have no impact ~~from~~ on shading in the area given its location within the east-facing hillside.	None necessary.	Less than significant.
Interior lighting of the structure, exterior security lighting, and lighting of the pedestrian bridge would not impact surrounding uses. The lighting of the ~~athletic~~ practice field (up to 8 p.m. weeknights) would have a significant impact upon the adjacent residential and open space uses. (Topographic separation serves to reduce this impact to many adjacent	RC-AES-3: Project lighting shall comply with LAMC Section 93.0117. As such, lighting shall not cause more than two footcandles of lighting intensity or direct glare from the light source at any residential property. PDF-AES-4: Musco sports LED lighting fixtures (or equal alternative) with visor or shield system shall be used to illuminate the ~~athletic~~ practice field to provide better light control, reduce glare, and reduce the amount of spill light. Sports lighting fixtures shall be painted a natural green color so that they blend in to the natural surroundings. Sports lighting fixtures shall be on a remotely controllable timer ~~time clock~~ to ensure the fixtures are turned off at or before 8:00pm on weeknights. No lighting will be allowed on weekends. PDF-AES-5: Interior and exterior security lighting shall be integrated into the architectural and landscape lighting system: • ~~Lighting for the~~ Pedestrian bridge lighting shall be integrated within the handrails and mounted at a height	Less than significant.

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES		
Description of Impact	**Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)**	**Level of Significance After Mitigation**
areas.)	below the adjacent solid metal panels to eliminate any source of glare from the bridge. Light from the handrails shall illuminate the bridge walkway only and not spillover onto Coldwater Canyon Avenue. • Practice field level security lighting shall be incorporated into the electronically-controlled field lights and shall be set to provide the minimum recommended illumination for security/emergency purposes. • Within the structure, LED down lights (average 5 fc) shall include shielding elements that, from the outside of the parking structure, shall eliminate any direct views of the light source. • Stairwells and stair landings shall include a single source above each landing (likely using the same LED fixtures and shields incorporated into the main structure). • The use of lighting incorporated into the stairwell handrails shall also be included. • The access road shall include small, ground level lighting fixtures that shall only be activated for security or emergency purposes in order to illuminate the roadway and roadway boundaries (i.e., lights would not routinely be on). Lighting shall be primarily for emergency vehicles and evacuation from the structure (if necessary). • There shall be no general and/or decorative landscape lighting. MM-AES-1: Any lighting related to construction activities shall be shielded or directed to prevent any direct illumination onto residential property located outside of the Harvard-Westlake School property. MM-AES-2: Permanent exterior lighting shall incorporate fixtures and light sources that focus light onto the Project Site to minimize light trespass and prevent direct views of the fixture source from adjacent properties. MM-AES-3: Spillover light levels shall not exceed 0.0 foot candles on adjacent residential and open space properties (this mitigation measure shall not apply to property owned by Harvard-Westlake). MM-AES-4: The Project shall not use highly reflective building materials such as mirrored glass in exterior façades. All building materials shall be diffuse and of low reflectance to prevent potential glare. Examples of appropriate non-reflective building materials include cement, plaster, concrete, metal, and non-mirrored glass, and could likely include additional materials as technology advances in the future. MM-AES-5: All outdoor lighting (including ~~athletic~~ practice field lighting, security and landscape lighting) shall be designed and installed so that the lighting at residential and open space properties is minimized and in no event exceeds 0.0 footcandles (this mitigation measure shall not apply to property owned by Harvard-Westlake). Permanent exterior lighting shall be shielded to prevent direct views of the fixture source from adjacent residential neighbors. Fixtures shall also be focused properly to limit the amount of spillover lighting. MM-AES-6: The Parking Structure shall include appropriate measures to ensure that neither interior lighting of the structure nor headlights from cars using the structure cause light to disturb residents in the vicinity of the Development Site site to the north, west or east of the site across Coldwater Canyon Avenue. All interior parking garage fixtures shall be shielded to prevent direct views of the source when viewed from outside the structure. The design of the Parking Structure shall incorporate screening elements to prevent lighting and car headlights from disturbing residences around the Project Site. Interior lighting fixtures shall be controlled by photocells and occupancy sensors to reduce the light output of the fixtures when the structure is unoccupied. MM-AES-7: The Project applicant shall retain a lighting design expert to implement the following protocol, and prepare a report to be submitted to the Department of Building and Safety, to ensure and document compliance with all City lighting regulations, assumptions used in the EIR analysis and all mitigation measures no later than 6	

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	months after a certificate of occupancy is granted: a) Six representative testing sites shall be established on or next to those light sensitive receptors that have the greatest exposure to site lighting (residential uses east of the Campus, and open space and residential uses to the west and north of the Development Site). b) A light meter mounted to a tripod at eye level, facing the Development Site, should be calibrated and measurements should be taken to determine ambient light levels with Project lights on. c) A reading should be taken with lights on and then with lights off to determine the change in ambient light levels. d) The difference between the two would be the amount of light the Project casts onto the sensitive receptor. MM-AES-8: Building materials, including those on the pedestrian bridge shall be of low reflectivity to prevent potential glare reflected on to motorists along Coldwater Canyon Avenue. Lighting elements on the bridge shall be concealed to minimize spillover light on to the street below. MM-AES-9: A~~n~~ three ~~eight~~-foot-tall (total average height) ~~cable retention system (to prevent rock fall) combined with a~~ green chain link fence (with undulating top), with vines and other climbing plants as appropriate, and adjacent appropriate native plantings shall be constructed atop retaining walls to further assist in screening the Parking Structure and light and glare from the practice field on to adjacent residences.	
3.2 Air Quality and Greenhouse Gas		
While the Project would require a Conditional Use Permit, it would not result in uses inconsistent with the General Plan. The Project would provide ancillary parking for an existing use and would help improve traffic flow in the vicinity of the Harvard-Westlake School. The Proposed Project would not generate new vehicle trips to the study area and there would not be an associated increase in regional emissions. Operations of the Parking Structure and ~~athletic~~ practice field would not interfere with implementation of AQMP control measures. Therefore, the Proposed Project would result in less than significant impacts related to consistency with the AQMP.	None required.	Less than significant.
~~Project construction (including truck trips) and operation would not~~	~~None required.~~	~~Less than significant.~~

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
~~generate significant amounts of criteria pollutants such that they would impact regional air quality.~~		
Project construction (including truck trips) would generate NO_X in excess of the SCAQMD threshold. (Emissions of other criteria pollutants would be below SCAQMD Thresholds before mitigation.) Project construction emissions would not result in exceedances of SCAQMD Localized Significance Thresholds (LSTs). ~~Project construction would generate fugitive dust that would significantly impact PM_{10} concentrations (but not $PM_{2.5}$ concentrations) at six residences immediately adjacent to the construction site.~~	PDF-AQ-1: The majority of excavation and grading activity would occur during weekday daytime hours when most people are away from their home and not heavily utilizing residential yards. RC-AQ-1: Project construction shall comply with SCAQMD Rule 403 that requires the following: – Water or a stabilizing agent shall be applied to exposed surfaces at least three times per day to prevent generation of dust plumes. – Construction contractor shall utilize at least one or more of the following measures at each vehicle egress from the Project Site to a paved public road in order to effectively reduce the migration of dust and dirt offsite: • Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long; • Pave the surface extending at least 100 feet and at least 20 feet wide; • Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or • Install a wheel washing system to remove bulk material from tires and vehicle undercarriages. – All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions). – Construction activity on unpaved surfaces shall be suspended when wind speed exceed 25 miles per hour (such as instantaneous gusts). – Ground cover in disturbed areas shall be replaced as quickly as possible. MM-AQ-1: The construction contractor shall use electricity from power poles rather than temporary diesel or gasoline generators. MM-AQ-2: When reinforcing the hillside through soil nailing, the construction contractor shall minimize dust to the greatest extent feasible using available techniques including, but not limited to, the application of water to remove cuttings. MM-AQ-3: The construction contractor shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications. MM-AQ-4: The construction contractor shall use alternative-fueled off-road equipment where possible. MM-AQ-5: The construction contractor shall configure construction parking to eliminate interference with traffic operations on Coldwater Canyon Avenue. MM-AQ-6: The construction contractor shall provide temporary traffic controls, such as a flag person, during all phases of construct to maintain smooth traffic flows. MM-AQ-7: The construction contractor shall schedule construction activities that affect traffic flow on arterial system to off-peak hours. MM-AQ-8: All construction equipment and delivery vehicles shall be turned off when not in use or prohibit idling in excess of five minutes. Haul trucks in particular that stage waiting to be called to remove dirt from the site shall not be allowed to idle while queuing.	~~**Significant and unavoidable.**~~ Less than significant.

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	MM-AQ-9: The construction contractor shall coordinate with the Project Site administrator for Harvard-Westlake School and the administrator for Sunnyside Preschool ~~shall coordinate with the construction contractor~~ to schedule construction activity that utilizes heavy equipment and generates fugitive dust to when student exposure would be minimized. MM-AQ-10: The construction contractor shall ensure that diesel-powered construction equipment greater than 50 horsepower meets the USEPA Tier 3 emission standards, where available.	
Emissions associated with Project operation (including localized emissions at the Parking Structure and adjacent to the bus staging area) would be less than significant.	None required.	Less than significant.
The Project would have a less than significant impact on odors (construction and operation).	None required.	Less than significant.
The Project would have a less than significant impact on greenhouse gas emissions.	None required.	Less than significant.
3.3 Biological Resources		
The Project would impact approximately ~~3.96~~ 4.43 acres of the ~~6.22~~ 6.83-acre Development Site. ~~survey area (the biological survey extended slightly beyond the site boundary to capture potential impacts on 0.74 acres not included in the Project site)~~. The Project would impact approximately ~~1.05~~ 1.43 acres of oak/walnut woodland (a significant impact), and approximately ~~2.91~~ 3 acres of disturbed/ruderal area (a less than significant impact).	PDF-BIO-1: The Project as proposed specifies the retention of approximately ~~2.19~~ 2.29 acres of native vegetation (oak woodland and other native species) on the Development Site (that shall function as a natural conservation area) with an additional ~~1.12~~ 2.08 acres of new landscaping and permeable area. To the extent that this area remains relatively free of human disturbance, it will continue to function as a component of the natural ecology of the area except in the immediate vicinity of the new development. Project landscaping shall be comprised of native vegetation. MM-BIO-1 a. In order to ensure that direct impacts to habitats are limited to those proposed, temporary fences or other marking devices shall be placed at the limits of grading prior to the onset of grading to guide equipment operators and keep them within the limits of grading and therefore ensure that impacts do not extend beyond the construction site. Earth-moving equipment shall be confined to areas within the designated daylight grading area at all times during construction. b. In coordination with the City's Urban Forrester and the Fire Department, a qualified biologist shall prepare a plan to identify appropriate plantings and plant communities to be used in the ~~2.19~~ 2.29 acres of the Development Site that is to remain in native vegetation. This area may include buffers of native vegetation adjacent to the Santa Monica Mountains Conversancy property. The plan shall include brush, boulder, and salvaged tree piles, reptile/underground mammal cover boards, and/or potential bat or other roosting habitats as appropriate. c. A qualified biologist shall use reasonable efforts to salvage seeds from on-site Protected Trees that are removed to be used on-site to mitigate loss of Protected Trees. d. Brush Clearance: a biologist shall supervise all LAFD-required brush clearance activities. For purposes of	~~Less than significant.~~ **Significant and unavoidable. Conservatively considered to be a cumulatively considerable contribution to loss of oak-walnut woodland habitat.**

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	complying with LAFD requirements the following species shall be considered native trees (no matter what size): laurel sumac, elderberry, oak, toyon, walnut, and sugar bush; no live material shall be removed from any native tree. e. Harvard-Westlake School shall post signs around the native vegetation area indicating: "No Trespassing – Natural Habitat Area."	
The Project would result in the removal of ~~12~~ 13 oaks, and ~~117~~ 134 walnuts, encroachment would impact an additional 6 oaks and ~~20~~ 14 walnuts. All these trees are protected by City ordinance.	RC-BIO-1: Oak/walnut woodland habitat will be mitigated in accordance with ~~Los Angeles Municipal Code (~~LAMC~~)~~ requirements. This mitigation will, by definition, reduce the level of impacts to less than significant. The ~~Protected~~ Native Tree Report for the Project indicates that the trees lost due to Development Site development will be replaced at a 4:1 ratio with tree species and size to be as determined to be acceptable by the City. The ~~Protected~~ Native Tree Report shall be updated prior to approval of a removal permit. The applicant shall comply with the recommendations of the ~~protected~~ Native Tree report as may be amended by the Advisory Agency and/or Urban Forester. The following list of recommendations and mitigation measures is summarized from the Protected Tree Report and Native Tree Report (see Appendices D.2 and D.3): *The following recommendations apply to the Project as a whole, pertinent to all protected trees:* *2.a The applicant shall be responsible for notifying the Advisory Agency and/or the City Forester of any changes in the scope of the work and shall ensure that all work is performed in accordance with applicable ordinances, permits, and procedures. Work performed within the drip line of the trees shall be preceded by not less than 48 hours notice to the City Forester and the Project's Arborist (Certified/Registered Arborist).* *2.b Equipment, materials, and vehicles shall not be stored, parked or operated within the drip line of a protected tree.* *2.c Removal of the natural leaf mulch within the drip line of the protected trees onsite is prohibited except where absolutely necessary AND as approved by the Project's Arborist.* *2.d All trees not approved for encroachment shall be fenced prior to commencement of grading operations, and shall remain fenced until the City Forester approves removal of fencing.* *2.e Any pruning, including dead wooding, shall be performed in compliance with the latest ANSI pruning standards by a certified arborist (or certified tree worker) or under direction of a certified arborist. Smaller limbs should be tied back out of the way to avoid unnecessary pruning for equipment clearance.* *2.f Within 10 working days of completion of the work approved under this permit, the tree consultant shall provide a Project certification letter to the City Forester. The applicant shall be responsible for notifying and coordinating all conditions with the City Forester and the Project's Arborist.* *Mitigation for Tree Removals* *Removal of trees shall be mitigated for according to the City of Los Angeles Municipal Code 17.05 §R (4 & 5) as amended by Ordinance Number 177404, effective 4/23/06, and to the satisfaction of the City's Chief Forester (Bureau of Street Services, Forestry Division), and the Board of Public Works. Current Board of Public Works policy has increased the minimum requirement for protected tree replacement to 4:1. The Forestry Division will determine the final stock size and locations of mitigation plantings.* *Mitigation recommendations for the protected oak and walnut trees are outlined below. ~~Ten (10)~~ Thirteen (13) oak*	Less than significant to protected trees. However, loss of these trees is conservatively considered to result in a cumulatively considerable contribution to a significant impact with respect to loss of oak-walnut woodland habitat.

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	trees and ~~94~~ 134 Southern California black walnut tree are proposed to be removed by the Harvard-Westlake ~~School~~ Parking *~~Structure Project~~ Improvement Plan of which 2 oak trees and 13 walnut trees are deemed dead.* *2.g Given the significantly diseased condition of most of the walnut trees to be removed and the fact that there is currently no treatment available for the "thousand cankers disease" from which they suffer, we do **not** recommend the planting of any new Southern California black walnuts. If treatment becomes available, or new research indicates a resilience to the disease, this recommendation may be revised in the updated tree report to be prepared prior to the approval of the final tree removal permit.* *2.h To comply with the 4:1 replacement ratio, at least ~~416~~ 528 mitigation trees should be planted on-site in the remaining open space areas of the Harvard-Westlake property. See Appendix IV of the Protected Tree Report for the Conceptual Mitigation Planting Plan. Color-coding on the plan calls out areas potentially suited for the recommended mitigation trees for the site: Coast live oak (Q. agrifolia), California scrub oak (Quercus berberidifolia), western sycamore (platanus racemosa), and Mexican elderberry (Sambucus mexicana). If sufficient space is not available to accommodate all of the required mitigation trees on-site, off-site mitigation may be required. Off-site mitigation, if necessary, will comply with the requirements and guidelines for replacements as outlined in the City of Los Angeles Municipal Code 17.05 §R (4 & 5) as amended by Ordinance Number 177404, effective 4/23/06, and to the satisfaction of the City's Chief Forester (Bureau of Street Services, Forestry Division), and the Board of Public Works. Off-site mitigation may include, but not be limited to, payment of in-lieu fees, acquisition of appropriate habitat with a specific number of existing trees for preservation, planting mitigation trees at an off-site location, or any combination of these measures.* *2.i Mitigation trees of the species called out herein may also be planted in the newly landscaped areas of the Project as approved by the City Forester.* *2.j City guidelines for mitigation trees call for "15-gallon specimen[s] measuring one inch or more in diameter at a point one foot above the base and not less than seven feet in height, measured from the base." However, given that the majority of the removal trees are walnuts in poor condition that should not be replaced "in-kind", it is recommended that a range of smaller container sizes (such as one to five gallon) be allowed for mitigation trees in this Project. Multi-stemmed trees should be allowed for mitigation purposes. The City Forester shall determine the final container sizes acceptable for each replacement species.* *2.k Mitigation trees should be planted in groups, or clusters, of three to five trees in a circular or triangular pattern to mimic natural groups of trees. The City Forester shall determine the final placement of each replacement tree and/or group of trees on a Final Mitigation Planting Plan.* *2.l The replacement trees must be planted by a Tree Expert, as defined by the LAMC, and carefully planted to maximize likelihood of survival.* *2.m All plantings will be generously watered immediately after planting and maintained for three years from the date of planting.* *2.n The Project applicant shall post a bond acceptable to the City Engineer to guarantee the survival of these replacement trees and shall provide protected tree maintenance information to the landscape*	

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	maintenance contractor responsible for the mitigation trees. *2.o The applicant shall provide a copy of the final tree removal permit conditions of approval to the Project's Arborist.* *2.p The Project's Arborist shall review the final landscape plan for compliance with the recommendations of this report and the final tree removal permit conditions of approval.* *2.q The Project's Arborist shall be notified within one week prior to the commencement of mitigation tree planting.* *2.r Within 30 days of all mitigation trees being planted, the Project's Arborist shall inspect the plantings with the landscape contractor and an "As-Built" Mitigation Planting Plan shall be prepared by the Project's Arborist and/or landscape architect on the Landscape & Irrigation Plan. This "as-built" plan shall be used to document the baseline placement and irrigation status of the mitigation trees for future monitoring visits by the Project's Arborist and will be used for the first mitigation trees monitoring report.* *2.s Three years of mitigation tree monitoring shall be documented by the Project's Arborist to the Applicant and the City Forester through a number of regularly scheduled site inspections and reports. The number and sequence of inspections over the three year period will be determined at the discretion of the City Forester in the final tree removal permit conditions of approval.* *2.t Walnut trees that are not impacted by the Project, but die from ~~Thousand Cankers Disease~~ TCD during the course of the Project construction and post-Project monitoring should be documented in the monitoring reports and recommendations for their removal may be made in the monitoring reports. Mitigation for the removal of dead walnut trees with confirmed TCD should not be required. This scenario should be addressed in the Project's tree removal permit conditions to the satisfaction of the City Forester and the Board of Public Works. All California walnut trees infected with TCD that are removed from the Project Site shall be disposed of properly to reduce the chance of spread to other trees. Proper disposal of material from affected trees includes burning or burying branches and smaller diameter wood as soon as possible. Persons salvaging wood and branches off the project site can spread the insect carrier and fungus to new areas. Tools and equipment coming into contact with infected trees shall be sanitized before reuse; this process shall be monitored by a qualified professional.* *Mitigation for Encroachment and Preservation of Trees* *~~160~~ 191 protected trees will be preserved onsite; which includes ~~26~~ 20 that would be subject to minor encroachment within the outer edges of their ~~will be permanently encroached upon within the~~ drip line, consisting of ~~including~~ ~~20~~ 14 walnuts and 6 oaks. Coast live oaks have a "good" relative tolerance to development impacts, but California black walnut has a "poor" relative tolerance and can "die slowly following even minor root injury or changes to water table…[and]…crown reduction pruning may be fatal" (Methany and Clark, 1989). Therefore, special care must be taken during Project implementation to minimize impacts to the root zones and canopies of these trees. Implementation of the following measures is recommended.* *2.u All work in the drip line of the trees approved for encroachment must be done using hand implements only; the use of mechanized tools is prohibited except where absolutely necessary AND as approved by the City Forester.*	

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	2.v *All work conducted within the drip line of the trees shall be performed in the presence of the Project's Arborist. The drip line shall commence from the outer edge of the tree canopy and extend inwards to the trunk of the tree.* 2.w *Root-pruning within the drip line shall be reduced to the minimum amount that is absolutely necessary. All roots pruned shall consist of clean, 90º-angle cuts utilizing sharp hand tools and shall not be sealed unless directed by the City Forester. Any major roots (2" or greater in diameter) encountered shall be preserved to the extent possible, wrapped in moist burlap, until the soil is replaced. Soil shall be replaced as soon as possible around preserved roots.* 2.x *Upon completion of the work associated with this permit, a three to four-inch layer of certified mulch is recommended to be placed on the ground within the drip line of the encroachment trees (keep mulch six inches away from the trunks). Where feasible, the native leaf litter should be retained and used as the mulching material.* 2.y *All protected trees that have encroachment within their drip lines, or that end up being shaded out by new buildings, shall be monitored for possible failure as a result of Project implementation.* 2.z *The applicant shall be responsible for the monitoring and maintenance of the encroachment trees for a minimum of three (3) years. If any of the protected trees should fail as a result of encroachment by the Project, they shall be replaced at a 4:1 ratio in accordance with the current policy of the City of Los Angeles Board of Public Works, or as approved by the City Forester at the time of replacement. The applicant shall be responsible for the monitoring and maintenance of any replacement mitigation trees for a minimum of three (3) years. If the replacement trees die during the three-year period, the applicant shall plant new replacement trees and the three-year monitoring period shall begin again from the date of that planting.* *Other* *2.aa The applicant shall comply with all recommendations of the Registered Consulting Arborist contained in the Native Tree Report.*	
The Project could impact common wildlife species.	MM-BIO-2: A~~n~~ three ~~eight~~-foot-tall ~~(total average height) cable retention system (to prevent rock fall) combined with a green~~ chain link fence (with undulating top), with adjacent appropriate native plantings shall be constructed atop retaining walls to prevent wildlife from falling. In addition, all entrances to the garage shall be equipped with roll down doors that shall be closed at night to prevent wildlife from entering the Parking Structure. All fencing used on the Development Site shall be constructed with materials that are not harmful to wildlife. Prohibited materials include, but are not limited to, spikes, glass, razor, or barbed wire. All hollow fence caps shall be capped; fences with top holes shall be sealed to prevent the entrapment of bird species and other wildlife.	
The Project could introduce undesirable species.	MM-BIO-3: To reduce the invasion of aggressively invasive exotic plant species into the Santa Monica Mountains no landscaping for the Project shall utilize any species found on the "CalEPPC List" -- more formally known as "Exotic Pest Plants of Greatest Ecological Concern in California." Furthermore, if any species found on this list "volunteer" in the Project area, whether in individual lots or common areas, they shall be removed immediately upon discovery. The current list can be found on the website: http://groups.ucanr.org/ceppc/Pest_Plant_List/	Less than significant.
Night-lighting could be detrimental to	MM-BIO-4: Shielded directional lighting, including, as appropriate, internal silvering of the globe or external	Less than significant.

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Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
animals in adjacent open space areas.	opaque reflectors to direct light away from natural areas, and motion sensing technology that cause lights to only be on when required by the presence of people. All lighting adjacent to natural areas shall be low luminescence, directed downwards or towards the structure and shall include shielding to the extent necessary to prevent direct artificial illumination of natural areas and to protect nocturnal biological resources, as determined to be appropriate by a qualified biologist.	
The Project could impact protected species (Plummer's mariposa lily).	MM-BIO-5: Surveys for Plummer's mariposa lily shall be conducted during the May-July flowering period for the species. After Project approval, any Plummer's mariposa lilies located in the impact area will be relocated to suitable habitat outside the impact area.	Less than significant.
Construction would disturb wildlife in the immediate area. Some wildlife would return upon completion of construction, but some species would be permanently displaced.	MM-BIO-6: A wildlife salvage program shall be conducted within 14 days prior to the commencement of grading on the Project Site. The salvage effort will be conducted by a qualified wildlife biologist with experience capturing and handling native wildlife. Wildlife captured will be relocated to one of the local designated open space preserves. Additional salvage efforts shall be undertaken during initial clearing of the Project Site to remove species of low mobility. Salvaged wildlife shall be released into preserved open space areas as near to the Project Site as possible.	~~Less than significant.~~ Significant and unavoidable. Impacts to oak-walnut woodlands could, conservatively, result in Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively significant and unavoidable with respect to loss of oak/walnut woodland and associated sensitive species.
The Project could impact bird nesting on the Development Site. The impacts to oak/walnut woodland habitat would be mitigated through the replacement of trees as required by Mitigation Measure BIO2. Nonetheless, cumulative encroachment and loss of oak/walnut woodland in the area would make a cumulatively considerable contribution to a significant impact with respect to loss of this resource and impacts on sensitive species (primarily birds) that forage in oak-walnut woodland.	MM-BIO-7: All vegetation removal within the approved impact area will take place between September 1 and February 15, to the extent feasible. If construction takes place between February 15 and September 1, a preconstruction survey (by a qualified biologist) will be undertaken to identify any nests and any appropriate protective measures. This measure will protect any bird species from direct mortality as a result of Project construction and nest removal. It is assumed that bird species occurring on the site would leave the construction area at the onset of brush clearing. If construction begins before February 15, and proceeds continuously through the summer, weekly monitoring visits, by a qualified biologist, will be made to determine if any birds are nesting in the remaining habitat onsite and if so whether they are being disturbed by construction activity. If any birds are found to be nesting, the biologist will determine if construction is reducing nesting success. If construction is found to be reducing nesting success, a buffer zone will be established within which construction will not occur until nesting is complete. The buffer zone shall be 500 feet for raptors and 200 feet for other bird species. If evidence of bats is identified during preconstruction surveys a bat expert shall be consulted and mitigation shall be implemented to ensure no significant adverse impacts to bats as determined by the bat expert. The biological monitor will be present on site during all grubbing and clearing of vegetation to ensure that activities remain within the project footprint. The biological monitor will retain weekly monitoring reports for inspection upon request of the City	~~Less than significant.~~ As noted above, conservatively Project is considered to have a cumulatively significant and unavoidable impact with respect to sensitive (including bird) species.

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	during the grubbing and clearing of vegetation, and shall notify the Department of Building and Safety immediately if Project activities have the potential or do damage active avian nests.	
The Project could impact foraging habitat for Cooper's hawk.	Impacts to the foraging habitat for Cooper's hawk will be addressed through the following measures: RC-BIO-1, PDF-BIO-1 and BIO-1.	~~Less than significant.~~ As noted above, conservatively, the Project is considered to have a cumulatively significant and unavoidable impact with respect to sensitive (including bird) species.
3.4 Cultural Resources (Archaeological, Paleontological and Human Remains Resources)		
The ~~Project~~ Development Site is rated low with respect to archeological and paleontological sensitivity. Therefore, the potential for encountering resources is considered low.	MM-CUL 1: If any archaeological materials are encountered during the course of Project development, all further development activity shall halt and: o The services of an archaeologist shall then be secured by contacting the South Central Coastal Information Center (657-278-5395) located at California State University Fullerton, or a member of the Society of Professional Archaeologist (SOPA) or a SOPA-qualified archaeologist, who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. o The archaeologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. o The applicant shall comply with the recommendations of the evaluating archaeologist, as contained in the survey, study or report. MM-CUL 2: Project development activities may resume once copies of the archaeological survey, study or report are submitted to: SCCIC Department of Anthropology, McCarthy Hall 477, CSU Fullerton, 800 North State College Boulevard, Fullerton, CA, 92834. MM-CUL3: Prior to the issuance of any building permit, the applicant shall submit a letter to the case file indicating what, if any, archaeological reports have been submitted, or a statement indicating that no material was discovered. A covenant and agreement binding the applicant to this condition shall be recorded prior to issuance of a grading permit. MM-CUL 4: If any paleontological materials are encountered during the course of project development, all further development activities shall halt and: o The services of a paleontologist shall then be secured by contacting the Center for Public Paleontology - USC, UCLA, California State University Los Angeles, California State University Long Beach, or the Los Angeles County Natural History Museum - who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact. o The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource. o The applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study or report. o Project development activities may resume once copies of the paleontological survey, study or report are submitted to the Los Angeles County Natural History Museum.	Less than significant.

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Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	MM-CUL 5: Prior to the issuance of any building permit, the applicant shall submit a letter to the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered. A covenant and agreement binding the applicant to this condition shall be recorded prior to issuance of a grading permit. MM-CUL 6**:** In the event that human remains are discovered during excavation activities, the following procedure shall be observed: o Stop immediately and contact the County Coroner: 1104 N. Mission Road, Los Angeles, CA 90033. 323-343-0512 (8 a.m. to 5 p.m. Monday through Friday) or 323-343-0714 (After Hours, Saturday, Sunday and Holidays) o The coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission. o The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendent of the deceased Native American. o The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. o If the descendent does not make recommendations within 48 hours the owner shall reinter the remains in an area of the property secure from further disturbance, or; o If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the Native American Heritage Commission. *Discuss and confer* means the meaningful and timely discussion careful consideration of the views of each party.	
3.5 Geology, Soils and Hydrology (including Storm Water Drainage)		
The Project would not expose people to substantial increased risk as a result of geologic hazard, liquefaction, subsidence, expansive soils.	RC-GEO-1: The applicant ~~shall~~ has prepared a detailed Final ~~Geotechnical~~ Geologic and Soils Engineering Report to address site-specific geologic constraints of the site including soil conditions (including expansive soils) and stability. The Final ~~Geotechnical~~ Geologic and Soils Engineering Report ~~shall incorporate~~ includes ~~recommendations from the Preliminary Geotechnical Report including~~ recommendations related to erosion control, soil nail wall design, shoring and other site-specific conditions including seismicity, bedrock material, corrosivity and compressibility of soils, undocumented fill, etc. for design and construction of the Parking Structure. The applicant/contractor shall comply with all recommendations of the Final ~~Geotechnical~~ Geologic and Soils Engineering Report and the associated approval letter from the City Department of Building and Safety. A registered geologist shall monitor that recommendations of the ~~Geotechnical~~ Final Geologic and Soils Engineering Report are implemented as appropriate. RC-GEO-2: The Project shall be constructed in compliance with the LAMC and California Building Code and all other applicable regulations. RC-GEO-3: The Project shall comply with the following City Department of Building and Safety requirements, prior to issuance of a grading permit for the Project: • Prior to the issuance of a grading permit by the City Department of Building and Safety, the consulting geologist and soils engineer shall review and approve Project grading plans. This approval shall be conferred by signature on the plans which clearly indicate the geologist and/or soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in the report. • Prior to the commencement of grading activities, a qualified geotechnical engineer and engineering geologist	Less than significant.

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	shall be employed for the purpose of observing earthwork procedures and testing fills for conformance to the recommendations of the City Engineer, approved grading plans, applicable grading codes, and the geotechnical report approved to the satisfaction of the Department of Building and Safety. • During construction, all grading shall be carefully observed, mapped and tested (as appropriate) by the Project engineer. All grading shall be performed under the supervision of a licensed engineering geologist and/or soils engineer in accordance with applicable provisions of the LAMC and California Building Code and to the satisfaction of the City Engineer and the Superintendent of Building and Safety. • Any recommendations prepared by the consulting geologist and/or soils engineer for correction of geologic hazards, if any, encountered during grading shall be submitted to the City Department of Building and Safety for approval prior to issuance of a Certificate of Occupancy for the Project. • Grading and excavation activities shall be undertaken in compliance with all relevant requirements of the California Division of Industrial safety, the Occupational Safety and Health Act of 1970 and the Construction Safety Act. RC-GEO-4: The Project shall conform to applicable criteria set forth in the Recommended Lateral Force Requirements and Commentary by the Structural Engineers Association of California. RC-GEO-5: The Project shall comply with the parameters outlined in the most recent California Building Code as designated for site-specific soil conditions. RC-GEO-6: The Project shall be designed to conform to the City of Los Angeles Seismic Safety Plan and additional seismic safety requirements not encompassed by compliance with the LAMC and California Building Code as may be identified by the City Department of Building and Safety prior to Plan Check approval on each building. RC-GEO-7: During the rainy season (between October 1 and April 15 per the Los Angeles Building Code, Sec. 91.7007.1), an erosion control plan that identifies Best Management Practice (BMPs) shall be implemented to the satisfaction of the City of Los Angeles Department of Building and Safety to minimize potential erosion during construction. The erosion control plan shall be a condition to issuance of any grading permit. RC-GEO-8: Appropriate erosion control and drainage devices shall be incorporated to the satisfaction of the Department of Building and Safety. Such measures include interceptor terraces, berms, vee-channels, and inlet and outlet structures, RC-GEO-9: If temporary excavation slopes are to be maintained during the rainy season, all drainage shall be directed away from the top of the slope. No water shall be allowed to flow uncontrolled over the face of any temporary or permanent slope. RC-GEO-10: Provisions shall be made for adequate surface drainage away from areas of excavation as well as protection of excavated areas from flooding. The grading contractor shall control surface water and the transportation of silt and sediment. RC-GEO-11: The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by grading and hauling, and at all times shall provide reasonable control of dust caused by wind, at the sole discretion of the grading inspector. RC-GEO-12: Hauling and grading equipment shall be kept in good operating condition and muffled as required by	

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	law. RC-GEO-13 The Traffic Coordinating Section of the Los Angeles Police Department shall be notified at least 24 hours prior to the start of hauling. RC-GEO-14: Loads shall be secured by trimming or watering or may be covered to prevent the spilling or blowing of the earth material. If the load, where it contacts the sides, front, and back of the truck cargo container area, remains six inches from the upper edge of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area, the load is not required to be covered, pursuant to California Vehicle Code Section 23114 (e) (4). RC-GEO-15: Trucks are to be watered at the export site to prevent blowing dirt and are to be cleaned of loose earth at the export site to prevent spilling. RC-GEO-16: Streets shall be cleaned of spilled materials at the termination of each workday. RC-GEO-17: The applicant shall be in conformance with the State of California, Department of Transportation policy regarding movements of reducible loads. RC-GEO-18: The applicant shall comply with all regulations set forth by the State of California Department of Motor Vehicles pertaining to the hauling of earth. RC-GEO-19: A copy of the approval letter from the City, the approved haul route and the approved grading plans shall be available on the job site at all times. RC-GEO-20: The applicant shall notify the Street Services Investigation & Enforcement Division at least 72 hours prior to the beginning of hauling operations and shall also notify the Division immediately upon completion of hauling operations. RC-GEO-21: No person shall perform any grading within areas designated "hillside" unless a copy of the permit is in the possession of a responsible person and available at the site for display upon request. RC-GEO-22: A log noting the dates of hauling and the number of trips (i.e. trucks) per day shall be available on the job site at all times. RC-GEO-23: "Truck Crossing" warning signs shall be placed 300 feet in advance of the exit in each direction. RC-GEO-24: Flag persons shall be required at the job site to assist the trucks in and out of the Project area. Flag persons and warning signs shall be in compliance with Part II of the latest Edition of "Work Area Traffic Control Handbook." The pedestrians shall be allowed to clear first prior to permitting the trucks to ingress or egress.	
The Project could cause erosion and sedimentation during construction.	RC-HYDRO-1: The Project shall comply with the Low Impact Development (LID) Ordinance. Construction contractors of individual Projects shall be required to control erosion and runoff as necessary through the use of site appropriate grading practices. Specifically, the construction contractor shall plan for and implement Best Management Practice (BMP) during construction to the satisfaction of the Department of Public Works, Bureau of Engineering, Stormwater Management Division City of Los Angeles, and/or other designated responsible agencies/departments. RC-HYDRO-2: Sufficient area shall be available so that runoff can be collected in ~~bio swales~~ flow-through planters as appropriate and directed to existing curb and gutter or storm drains. ~~Swale~~ Flow-through planter design shall be coordinated with on-site hazardous materials issues as necessary.	Less than significant.

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	RC-HYDRO-3: The Project shall comply with applicable NPDES permit requirements, including preparation and implementation of a Stormwater Pollution Prevention Plan and Standard Urban Stormwater Mitigation Plan (SUSMP) in accordance with the Los Angeles Municipal Strom Water permit. The SUSMP shall identify post development peak runoff, conserve natural areas, minimize storm water pollutants, protect slopes and channels, and post construction Best Management Practices (BMPs) and other items as required by the permit.	
The Project would remove ~~135,000~~ 137,000 cubic yards (conservatively 140,000 cubic yards) of earth altering the topography in the vicinity of the Project Site.	None required.	Less than significant.
The Project could impact water quality during construction and operation.	RC-HYDRO-4: Runoff shall be treated, as required by SUSMP regulations, prior to discharging into existing storm drain systems. RC-HYDRO-5: All wastes from construction shall be disposed of properly. Appropriately labeled recycling bins shall be used to recycle construction materials including: solvents, water-based paints, vehicle fluids, broken asphalt and concrete; wood, and vegetation. Non-recyclable materials/wastes shall be taken to an appropriate landfill. Toxic wastes shall be discarded at a licensed regulated disposal site. RC-HYDRO-6: Leaks, drips, and spills shall be cleaned up immediately to prevent contaminated soil on paved surfaces that can be washed away into the storm drains. RC-HYDRO-7: Material spills shall not be hosed down at the pavement if alternative clean-up methods are available, such as dry cleanup methods. RC-HYDRO-8: Dumpsters shall be covered and maintained. Uncovered dumpsters shall be required to be placed under a roof or covered with tarps or plastic sheeting. RC-HYDRO-9: Gravel approaches and dirt-tracking devices shall be used to reduce soil compaction and limit the tracking of sediment into streets. RC-HYDRO-10: All vehicle/equipment maintenance, repair, and washing shall be conducted away from storm drains. All major repairs shall be required to be conducted at an appropriate location. Drip pans or drop cloths shall be required to catch drips and spills. RC-HYDRO-11: Project construction shall comply with the General Construction Activity Stormwater Permit (General Permit) and the City's Development Construction Program pursuant to the NPDES Permit (Permit No. CA00401). RC-HYDRO-12: Article 4.4 of Chapter IV of the LAMC specifies Stormwater and Urban Runoff Pollution Control requirements, including the application of Best Management Practices (BMPs). Chapter IX, Division 70 of the LAMC addresses grading, excavations, and fills. Applicants must meet the requirements of the Standard Urban Stormwater Mitigation Plan (SUSMP) approved by the Los Angeles Regional Water Quality Control Board, including the following, where applicable: • The Project applicant shall implement storm water BMPs to treat and infiltrate the runoff from a storm event producing 3/4 inch of rainfall in a 24-hour period. The design of structural BMPs shall be in accordance with the Development Best Management Practices Handbook Part B Planning Activities. A signed certificate from a California licensed civil engineer or licensed architect that the proposed BMPs meet this numerical threshold	Less than significant.

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	standard is required. • Post development peak storm water runoff discharge rates shall not exceed the estimated predevelopment rate for developments where the increase peak storm water discharge rate will result in increased potential for downstream erosion. • Clearing and grading of native vegetation at the Project Site shall be limited to the minimum needed to construct the Project, allow access, and provide fire protection. • Trees and other vegetation shall be maximized by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants. • Natural vegetation shall be promoted in landscaped areas. • Any identified riparian areas shall be preserved. • Appropriate erosion control and drainage devices, such as interceptor terraces, berms, vee-channels, and inlet and outlet structures, as specified by Section 91.7013 of the Building Code will be incorporated. • Outlets of culverts, conduits or channels from erosion by discharge velocities shall be protected by installing a rock outlet protection. Rock outlet protection is physical devise composed of rock, grouted riprap, or concrete rubble placed at the outlet of a pipe. Sediment traps shall be installed below the pipe-outlet. Inspect, repair, and maintain the outlet protection after each significant rain. • Any connection to the sanitary sewer will have authorization from the Bureau of Sanitation. • Impervious surface area will be reduced by using permeable pavement materials where appropriate. These include pervious concrete/asphalt; unit pavers, i.e. turf block; and granular materials, i.e. crushed aggregates, cobbles. • Roof runoff systems will be installed where site is suitable for installation. • Messages that prohibit the dumping of improper materials into the storm drain system adjacent to storm drain inlets shall be painted. • All storm drain inlets and catch basins within the Project area shall be stenciled with prohibitive language (such as NO DUMPING - DRAINS TO OCEAN) and/or graphical icons to discourage illegal dumping. • Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the Project area. • Legibility of stencils and signs must be maintained. • Materials with the potential to contaminate storm water must be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs. • The storage area will be paved and sufficiently impervious to contain leaks and spills. • The storage area shall have a roof or awning to minimize collection of storm water within the secondary containment area. • An efficient irrigation system shall be designed to minimize runoff including: drip irrigation for shrubs to limit excessive spray; shutoff devices to prevent irrigation after significant precipitation; and flow reducers. • Cleaning of oily vents and equipment will be performed within designated covered area, sloped for wash water collection, and with a pretreatment facility for wash water before discharging to properly connected sanitary sewer with a CPI type oil/water separator. The separator unit must be: designed to handle the quantity	

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	of flows; removed for cleaning on a regular basis to remove any solids; and the oil absorbent pads must be replaced regularly according to manufacturer's specifications. • Trash dumpsters will be stored both under cover and with drains routed to the sanitary sewer or use non-leaking and water tight dumpsters with lids. Containers will be washed in an area with properly connected sanitary sewer. • Wastes, including paper, glass, aluminum, oil and grease will be reduced and recycled. • Liquid storage tanks (drums and dumpsters) will be stored in designated paved areas with impervious surfaces in order to contain leaks and spills. A secondary containment system such as berms, curbs, or dikes shall be installed. Drip pans or absorbent materials whenever grease containers are emptied will be used. • The owner(s) of the property will prepare and execute a covenant and agreement (Planning Department General form CP-6770) satisfactory to the Planning Department binding the owners to post construction maintenance on the structural BMPs in accordance with the Standard Urban Storm Water Mitigation Plan and or per manufacturer's instructions. The Draft SUSMP prepared for the Project includes the following Project-specific BMPs: A. Structural BMPs *1. Kristar FloGard Plus Catch Basin Filter Inserts.* Kristar Catch Basin Filter Inserts, LA City research reference RR#5591 and LA City approval reference RR#5584, by KriStar Enterprises, Inc., which will be installed in ~~both~~ catch basins, are being proposed as structural BMPs for the removal of silt and debris in storm water runoff. The filter inserts have been selected to accommodate, up to and including, the 85th percentile storm event multiplied by a factor of 1.5. ~~See appendix "A" for calculations. See Appendix "B" for additional information including details and flow capacities.~~ *2. ~~Bio-swale~~ Flow-through Planter Box.* In addition to the catch basin filter insert, ~~bio-swale~~ a flow-through planter box is being proposed as a structural BMPs for the removal of silt and debris in storm water runoff. The ~~bio-swale~~ flow-through planter box has been designed to accommodate, up to and including, the 85th percentile storm event multiplied by a factor of 1.5. See Exhibit 1 of Appendix E.2. for details. 3. *Permeable Pavement.* Pervious concrete pavement along with permeable brick pavers will be considered in the final design to assist with decreasing the post-construction impervious areas. It is important to note that these pavement sections will require a geotextile liner along with an under-drain system to mitigate large storm events. ~~Exhibits 1 and 2 in Appendix E.2 show the proposed Grading and Drainage Plan and the SUSMP Exhibit respectively.~~ B. Non-structural BMPs *1. Open Paved Areas and Planter Areas.* a. Regular sweeping of all open and planter areas, at a minimum, on a weekly basis in order to prevent dispersal of pollutants that may collect on those surfaces. b. Regular pruning of the trees and shrubs in the planter areas to avoid formation of dried leaves and twigs, which are normally blown by the wind during windy days. These dried leaves are likely to clog the surface inlets of the drainage system when rain comes, which would result to flooding of the surrounding area due to reduced flow capacities of the inlets. c. Trash and recycling containers shall be used such that, if they are to be located outside or apart from the	

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
	principal structure, they are fully enclosed and watertight in order to prevent contact of storm water with waste matter, which can be a potential source of bacteria and other pollutants in runoff. These containers shall be emptied and the wastes disposed of properly on a regular basis. *2. Education and Training.* The Harvard-Westlake School Facilities Department shall be aware of the structural BMPs installed in the Project. Information materials, such as brochures, shall be available in the Facilities Department offices for their complete information. The Harvard-Westlake School Facilities Department staff shall also be briefed about chemical management and proper methods of handling and disposal of wastes and should understand the on-site BMPs and their maintenance requirements. *3. Landscaping.* Minimize the use of pesticides and fertilizers to the maximum extent practical. *4. Monitoring and Maintenance* a. All BMPs shall be operated, monitored, and maintained for the life of the Project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired, at the following minimum frequencies: 1) prior to October 15th each year; 2) during each month between October 15th and April 15th of each year and, 3) at least twice during the dry season (between April 16 and October 14 of every year). b. Maintenance procedures and recommendations outlined by KriStar Enterprises, Inc. shall be followed by the owner to ensure proper performance of the filter insert. c. Debris and other water pollutants removed from structural BMPs during cleanout shall be contained and disposed of in a proper manner. d. The drainage system and the associated structures and BMPs shall be maintained according to manufacturer's specification to ensure maximum pollutant removal efficiencies.	
3.6 Land Use		
The Project would not divide a community.	None required.	No impact.
The Project would be consistent with applicable plans and policies.	None required.	Less than significant.
3.7 Noise		
Project construction would significantly impact ~~up to four~~ approximately 50 private residences surrounding the Development Site plus the St. Michael's Church (which includes Sunnyside Preschool). (Vibration impacts would be less than significant.)	RC-N-1: All construction truck traffic shall be restricted to truck routes approved by the City of Los Angeles Department of Building and Safety, which shall avoid residential areas and other sensitive receptors to the extent feasible. RC-N-2: The Proposed Project shall comply with the City of Los Angeles Noise Ordinance (LAMC Chapter XI), and any subsequent ordinances, which prohibits the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible. ~~RC-N-3: Construction and demolition shall be restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, and prohibited on all Sundays and federal holidays.~~ RC-N-3~~4~~: The Proposed Project shall comply with the LAMC Section 91.106.4.8, which requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and	**Significant and unavoidable**.

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES		
Description of Impact	**Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)**	**Level of Significance After Mitigation**
	maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City's Department of Building and Safety. MM-N-1: The construction contractor shall ensure that noise-generating equipment operated at the Development Site is equipped with the most effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures). MM-N-2: The construction contractor shall ensure that all equipment is properly maintained to prevent additional noise due to worn or improperly maintained parts. MM-N-3: The construction contractor shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than metal-tracked equipment). MM-N-4: The construction contractor shall minimize the use of equipment or methods with the greatest peak noise generation potential. MM-N-5: The construction contractor shall schedule construction activities to avoid operating several pieces of equipment simultaneously where feasible. MM-N-6: When possible, the construction contractor shall use on-site electrical sources to power equipment rather than diesel generators. MM-N-7: The construction contractor shall locate construction staging areas away from sensitive uses. MM-N-8: Two weeks prior to the commencement of construction at the Development Site, notification shall be provided to the immediate surrounding off-site residential uses and St. Michael's Church/Sunnyside Preschool that discloses the construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period. MM-N-9: A "noise disturbance coordinator" shall be established. The noise disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The noise disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the noise disturbance coordinator. MM-N-10: The site administrator for Harvard-Westlake School shall coordinate with the construction contractor to schedule construction activity such that student exposure to noise is minimized. MM-N-11**:** Construction and demolition shall be restricted to the hours of 7:00 a.m. to 5:00 p.m. Monday through Friday, and 8:00 a.m. to 4:00 p.m. on Saturday, and prohibited on all Sundays and federal holidays.	
Project operation of the Parking Structure and ~~athletic~~ practice field would not significantly impact noise levels at adjacent uses.	None required.	Less than significant.
3.8 Transportation, Circulation and Parking		
Project construction would impact adjacent roadways and intersections but not to a significant level. ~~The~~	~~None required.~~ RC-TR-1: Review and approval of a haul route will be required to be obtained from the City of Los Angeles Board	Less than significant.

TABLE 1-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

Description of Impact	Regulatory Compliance Measures (RC-), Project Design Features (PDF-), and Mitigation Measures (MM-)	Level of Significance After Mitigation
~~applicant has indicated that construction on the site will not begin until~~ Construction on the DWP trunk line in Coldwater Canyon Avenue has progressed so that impacts would ~~will~~ not overlap significantly.	of Building and Safety Commissioners. Additional conditions may be imposed as part of that process. PDF-TR-1: Truck trips, Monday through Friday, would occur as follows: 8:00 a.m. to 9:00 a.m. limited incidental deliveries (i.e., one or two for cement, supplies); 9:00 a.m. to 10:00 a.m. up to 6 trucks (12 truck trips); 10:00 a.m. to 2:00 p.m. up to 14 trucks per hour (28 truck trips per hour); 2:00 p.m. to 3:00 p.m. up to 12 trucks (24 truck trips); 3:00 p.m. to 4:00 p.m. up to 6 trucks (12 truck trips).	
On completion of the Project, roadways adjacent to the Project Site would be improved.	None required.	No impact.
The Project would not impact CMP intersections.	None required.	Less than significant.
The Project would substantially reduce student parking in the neighborhood surrounding the school.	PDF-TR-2: The Parking Structure will include electric vehicle charging stations to encourage use of electric vehicles and encourage those with electric cars to park in the structure. MM-TR-1: Harvard-Westlake will issue to all students, staff, and faculty car parking permits which shall be required to be displayed on cars (stickers, rearview mirror hangers, or some other way to identify cars). Such stickers will allow neighbors and Harvard-Westlake Administration a means of identifying any parking activity that continues in the neighborhood.	No impact.

TABLE ES-2: NOP COMMENT SUMMARY

Commenter Name	Comment in Support	Comment in Opposition	Public Notice	Project Description, Need for Project	Visual Quality, Views	Lighting	Air Quality	Biological Resources, Trees	Cultural Resources	Geology, Soils, Hydrology, Water Quality	Land Use Compatibility, Open Space and Planning	Construction Noise	Operational Noise	Existing Noise	Fire Protection	Traffic, Parking, Access and Safety	Growth Inducing Impacts to School, Future Plans	Alternatives	Property Values	Miscellaneous/Other
LETTERS/E-MAIL																				
California Department of Fish and Wildlife								X												
Metropolitan Transportation Authority																X				
City of Los Angeles Department of Transportation																X				
Los Angeles Fire Department															X					
Native American Heritage Commission									X											
South Coast Air Quality Management District							X													
Santa Monica Mountains Conservancy (9/23/13)					X			X		X								X		
Karen Abrams						X							X			X	X		X	
Richard Adams						X		X		X			X		X					X
Walter Afanasieff (letter indicating agreement with Bruce Lurie letter see below)																				
Parker and Carol Andrews (indicates general agreement with Bruce Lurie letter see below)				X	X	X		X		X	X	X	X			X	X			X
Jeffrey Berk																				
Sarah Boyd (2 e-mails)				X	X	X		X			X		X	X		X		X		
Douglas P. Carstens, Chatten-Brown & Carstens (comments supplementing those by Jennifer Rothman, Esq. whose letter is also attached)			X	X	X		X	X		X	X	X	X			X		X		X
Sonia Choi Johns		X		X	X														X	
Harvey Coldwater		X	X								X									X
William L. Dean, PE		X									X									
Eliza Dilberti		X			X		X	X		X	X					X		X		
Geneva DuVall (2 e-mails)					X		X			X						X				
Shirley and Harold Engel (3 e-mails)		X			X	X					X	X	X			X	X	X	X	X
Alan Fiske (4 e-mails)		X			X		X	X				X	X							
Karl Gerber		X			X		X				X		X	X		X		X		
Keith Henry					X	X							X			X				
Patrick Holder		X									X					X				X
Tom and Kathi Holland						X		X					X						X	X

TABLE ES-2: NOP COMMENT SUMMARY

Commenter Name	Comment in Support	Comment in Opposition	Public Notice	Project Description, Need for Project	Visual Quality, Views	Lighting	Air Quality	Biological Resources, Trees	Cultural Resources	Geology, Soils, Hydrology, Water Quality	Land Use Compatibility, Open Space and Planning	Construction Noise	Operational Noise	Existing Noise	Fire Protection	Traffic, Parking, Access and Safety	Growth Inducing Impacts to School, Future Plans	Alternatives	Property Values	Miscellaneous/Other
Joanna Ikeda																X				
Alex Izbicki					X		X	X		X	X					X		X		
Jeffrey S. Jacobs					X	X	X				X		X	X		X				X
Susan Jacobs (2 e-mails)				X	X	X	X			X			X				X		X	X
Jeffrey and Susan Jacobs					X			X					X			X				
Mary Ann Jacobson		X		X												X		X		
J. Johnson and L. Nitta (2 letters)		X			X		X			X	X		X			X	X	X		X
Peter Juzwiak (2 e-mails) ~~also agrees~~ (agrees with Bruce Lurie Letter see below)		X	X	X	X	X		X		X	X		X			X		X		X
Rosemary Leibowitz		X		X				X								X		X		
Bruce Lurie (5 e-mails; 2 attachments)		X	X	X	X	X		X		X	X		X		X	X	X	X		X
Rae Markus		X			X			X		X		X	X					X	X	
Gwyn McColl (2 e-mails)		X		X	X	X		X			X	X	X	X		X				
Vedra Mehagian				X		X	X	X		X		X	X			X	X	X		X
Nate Mendel		X			X	X		X			X		X			X		X		
Bruce Pompan	X				X											X				
Joan Reese	X				X											X				X
Alexa Roman		X		X	X		X			X			X			X	X			X
Jennifer Rothman (2 e-mails/letters)		X	X	X	X	X	X	X		X	X			X	X	X	X	X		X
Sari and Arden Rynew (4 e-mails) and Dr. Edward Gilbert, MD (Letter included within)			X	X		X					X					X				X
Lisa Sarkin			X																	
Warren Zavala and Sarah Self (2 e-mails)			X		X										X	X			X	X
Patricia Shelllogg (2 e-mails)		X		X	X		X	X			X	X	X			X	X	X	X	X
Michael Stevens																X				
Tom and Cathy Tardio				X			X	X	X	X	X		X					X		
Debra Van Tongeren and John Van Tongeren	X				X											X				X
Michael Vos			X	X								X					X			X
Suellen Wagner				X	X							X	X			X		X		X
Dana Witt		X			X	X				X						X				

TABLE ES-2: NOP COMMENT SUMMARY

Commenter Name	Comment in Support	Comment in Opposition	Public Notice	Project Description, Need for Project	Visual Quality, Views	Lighting	Air Quality	Biological Resources, Trees	Cultural Resources	Geology, Soils, Hydrology, Water Quality	Land Use Compatibility, Open Space and Planning	Construction Noise	Operational Noise	Existing Noise	Fire Protection	Traffic, Parking, Access and Safety	Growth Inducing Impacts to School, Future Plans	Alternatives	Property Values	Miscellaneous/Other
Grace Wu		X					X													X
HANDWRITTEN COMMENTS AND COMMENTS SUBMITTED AT SCOPING MEETING																				
"Adjoining Neighbor"				X	X		X				X	X	X			X		X		X
"adjoining neighbor"							X			X	X									X
"Adjoining Neighbor"					X	X	X	X			X	X	X	X		X		X		
"adjoining neighbor"					X			X			X					X				X
"within 500 feet neighbor"					X						X	X	X							X
"adjoining neighbor"						X						X	X	X						
"adjoining neighbor within 500 feet"					X															X
"ADJACENT NEIGHBOR"				X	X		X			X	X						X	X		X
Dr. Edward Gilbert, MD, Parker Andrews, Carol Andrews, Keith Henry, Janene Gerber, Jim Johnson, Sarah Boyd, Peter Juzwiak,				X	X										X	X				
Steven Weinstein	X				X															
David E. Van Iderstine	X				X	X										X				
Scott Oulette	X				X					X		X	X							
No name provided					X	X		X		X	X	X	X			X		X		X
No name provided					X		X				X							X		X
Barry Johnson																		X		
Stan Karas				X		X						X				X				X
Richard Adams						X		X								X				
Jim Johnson					X		X	X		X	X		X			X				
Tina and Jeff Lam (no comments on card)																				
Jack Witz			X																	
David Connors				X			X											X		
Rev. Dan Justin					X					X						X		X		
Peter Juzwiak					X			X		X						X	X	X		
Sari Rynew							X				X	X	X			X				
Jon Boorstin				X	X											X	X			
Geoff Johns							X					X	X					X		

TABLE ES-2: NOP COMMENT SUMMARY

Commenter Name	Comment in Support	Comment in Opposition	Public Notice	Project Description, Need for Project	Visual Quality, Views	Lighting	Air Quality	Biological Resources, Trees	Cultural Resources	Geology, Soils, Hydrology, Water Quality	Land Use Compatibility, Open Space and Planning	Construction Noise	Operational Noise	Existing Noise	Fire Protection	Traffic, Parking, Access and Safety	Growth Inducing Impacts to School, Future Plans	Alternatives	Property Values	Miscellaneous/Other
Sarah Boyd		X			X	X						X	X			X				X
Zachary Rynew													X		X	X				
Arden Rynew		X						X								X				X
Vedra-Nancy Mehagian				X		X						X								X
Leni Boorstin					X	X		X								X				
Carol Andrews		X						X				X	X							X
Gaye Howard	X																			
Lynda and Ed Fadel	X																			
James David	X				X															
William Calvert	X																			
Jenny Stewart	X																			
Jon Boorstin				X													X			
Missy Calvert	X				X											X				
Catherine Maynes	X																			
Scott Maynes	X																			
Caryn Maynes	X																			
Abby Hope	X																			
Claudia Margolis	X															X				
Dani Staahl	X				X											X				
Bruce Eliot	X															X				
Carlos Villalta	X															X				
Tobey Victor	X															X				
Francis Hyde	X															X				
Shirley Hahn	X															X				
Esther Chung	X				X											X			X	
Nasreen Babu_Khan	X															X				
Frank Birney	X																			
Xi Zhang	X															X				
Sandra Klink	X																			
Amy Lasser	X															X				

TABLE ES-2: NOP COMMENT SUMMARY																				
Commenter Name	**Comment in Support**	**Comment in Opposition**	**Public Notice**	**Project Description, Need for Project**	**Visual Quality, Views**	**Lighting**	**Air Quality**	**Biological Resources, Trees**	**Cultural Resources**	**Geology, Soils, Hydrology, Water Quality**	**Land Use Compatibility, Open Space and Planning**	**Construction Noise**	**Operational Noise**	**Existing Noise**	**Fire Protection**	**Traffic, Parking, Access and Safety**	**Growth Inducing Impacts to School, Future Plans**	**Alternatives**	**Property Values**	**Miscellaneous/Other**
Debra Van Tongeren	X															X				
John Van Tongeren	X															X				
Bea and Erik Ridgley	X															X				
Portia Collins	X																			
Michael Thacher	X				X							X	X			X				
Howard Lemhoff	X															X				
Allyson Jones Caso	X															X				
Alan Caso	X															X				
Rhonda Rundle	X			X	X		X						X			X				
Geoffrey Hansen												X				X				X
Ann-Marie Whitman	X															X				
Melanie Stangs	X															X				
James and Jenny Stewart	X															X				
Lori Belateche	X															X				
Elizabeth F. Hailey			X		X				X	X							X			

1.0 INTRODUCTION

This ~~Environmental Impact Report (EIR)~~ RDEIR has been prepared to evaluate the potential environmental impacts that could result from a proposed three-story (4-level), 750-space, Parking Structure with rooftop (lighted) ~~athletic~~ practice field and pedestrian bridge across Coldwater Canyon Avenue and related improvements to the Harvard-Westlake Campus. The Parking Structure ~~and athletic field~~ would be located on an approximately ~~5.5~~ 6.83-acre Development Site (pre-dedication) across Coldwater Canyon Avenue from the approximately 19-acre existing Harvard-Westlake Campus. The Parking Structure would be an accessory use to the Harvard-Westlake Campus that would alleviate current impacts that occur as a result of school-related parking (buses and cars) along Coldwater Canyon Avenue and in the surrounding residential neighborhood. The Project also includes improvements to Coldwater Canyon Avenue ~~from the Harvard-Westlake Campus to Ventura Boulevard~~ along the Project frontage that would improve traffic flow and safety along that stretch of Coldwater Canyon Avenue.

This RDEIR has been prepared in conformance with the ~~State of California Environmental Quality Act (~~CEQA~~)~~ and the City ~~of Los Angeles~~ CEQA Guidelines, including the CEQA Thresholds Guide.

PURPOSE AND LEGAL AUTHORITY

CEQA Guidelines Section 15088.5 requires that a lead agency recirculate an EIR, or portions of an EIR, when significant new information is added to the EIR after public notice for public review of the Draft EIR, but prior to certification. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project, or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponent has declined to implement.

"Significant new information" requiring recirculation includes, for example, a disclosure showing that:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented;
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance;
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; or
4. The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (See, CEQA Guidelines §15088.5, subdivisions (a)(1)-(4).)

Under CEQA, if the revision is limited to a few chapters or portions of the DEIR, the lead agency need only recirculate the chapters or portions that have been modified (CEQA Guidelines §15088.5, subdivisions (c)). Recirculation of an EIR requires notice pursuant to CEQA Guidelines section 15087 and consultation pursuant to CEQA Guidelines section 15086.

The Harvard-Westlake Parking Improvement Plan RDEIR is being recirculated to inform the public regarding the following changes in the Project and updated information: 1) Additional property added to the Project Site to the south of the Parking Structure, including the paper street Hacienda Drive which is proposed to be vacated; 2) Addition of a debris basin west of the parking structure; 3) Changes in location and height of retaining walls; 4) Addition of deflection walls to the northwest of the Parking Structure; 5) New Final Geologic and Soils Engineering Report and updated Hydrological and LID reports; 6) Supplemental Traffic and Tree reports; 7)

Additional consideration of an alternative with subterranean construction; and 8) Other updated information and design refinements. In addition, the requested entitlements have been updated.

As reflected in the analyses presented in this RDEIR, the changes in the Project and updated information do not represent significant new information. Rather, the City has determined that a recirculated Draft EIR is desirable in light of the changes in the Project and updated information, and to foster further public input and informed decision making associated with the CEQA process for the Project.

In accordance with CEQA Guidelines Section 15121(a), the purpose of an EIR (which applies equally to a Recirculated Draft EIR) is to serve as an informational document that will generally inform public agency decision makers and the public of potentially significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. CEQA Guidelines Section 15151 contains the following standards for EIR adequacy:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

An EIR is an informational document for use by decision makers and the public in their review of the potential impacts of a proposed project, as well as in the evaluation of alternatives and mitigation measures which may minimize, avoid, or eliminate those impacts. As such, this document includes a full discussion of the project description, the existing environmental setting, environmental impacts, mitigation measures, and residual impacts that may exist after mitigation has been implemented, and project alternatives that could alleviate potential impacts.

To gain the most value from this report, the following points should be kept in mind:

- This report is a tool to provide the reader an overview of the possible ramifications of the Proposed Project. It identifies potential environmental impacts and subsequent effects on the local community's natural resources;

- As the public agency with the authority to approve or deny the Proposed Project, the City of Los Angeles, which is the Lead Agency, will consider the information in this RDEIR along with other information before taking any action on the Proposed Project. The conclusions of the EIR regarding environmental impacts do not control the ~~City of Los Angeles'~~ City's discretion to approve, deny or modify the Proposed Project, but instead are presented as information intended to aid the decision-making process.

~~DRAFT~~ RDEIR ORGANIZATION

As shown in the Table of Contents and illustrated in **Table 1-1**, this ~~Draft~~ RDEIR is organized into six chapters each dealing with a separate aspect of the required content of an EIR as described in the CEQA Guidelines. To help the reader locate information of particular interest, a brief summary of the contents of each chapter of the RDEIR is provided. The following chapters are contained within the RDEIR:

TABLE 1-1: REQUIRED DRAFT EIR CONTENTS

Requirement/CEQA Guidelines Section	Location in Draft EIR
Table of contents (Section 15122)	Table of Contents
Summary (Section 15123)	Executive Summary
Project description (Section 15124)	Chapter 2
Environmental setting (Section 15125)	All Sections in Chapter 3
Significant environmental impacts (Section 15126.2 (a))	Chapter 4
Unavoidable significant environmental impacts (Section 15126.2 (b))	Chapter 4
Mitigation measures (Section 15126.4)	All sections in Chapter 3
Cumulative impacts (Section 15130)	All sections in Chapter 3 and Chapter 4
Alternatives to the Proposed Project (Section 15126.6)	Chapter 5
Growth-inducing impacts (Section 15126.2 (d))	Chapter 4
Effects found not to be significant (Section 15128)	Chapter 4 and Appendix B
References (Section 15129)	Throughout
List of preparers; organizations and persons consulted (Section 15129)	Chapter 6
Acronyms and abbreviations	Throughout

Executive Summary: This chapter provides an overview of the purpose and use of the RDEIR, the scope of this RDEIR, the environmental review process for the RDEIR (including a description of the RDEIR process) and the Proposed Project (including refinements to the Project design), and the general format of the document. It also includes an overview of the scope of the RDEIR, as well as a summary of the Proposed Project (including refinements to the Project since publication of the Draft EIR), environmental impacts~~,~~ ~~proposed mitigation~~ (including identification of changes in impacts as a result of the refined design and/or new information), proposed mitigation (including identification of any changes in mitigation as a result of the refined design and/or new information), level of significance after mitigation, and unavoidable impacts (including identification of any changes in significance as a result of the refined design and/or new information). Also contained within this section is a summary description of Project alternatives.

Chapter 1. Introduction: This chapter describes the process, including the RDEIR process, and provides background on the Proposed Project.

Chapter 2. Project Description: This chapter identifies the Project location, summarizes the Proposed Project (including changes since the Draft EIR was published), and outlines the Project objectives, need for the Project and identifies Project characteristics and associated anticipated development (including changes since the Draft EIR was published).

Chapter 3. Environmental Setting, Impacts and Mitigation Measures: This chapter ~~provides a detailed setting~~ of the RDEIR evaluates the revised Project and new/updated information as applicable for each issue area ~~and evaluates environmental issues anticipated to be affected by the Project~~. Each section includes updated information and/or analysis as appropriate with respect to changes in the Project and new/updated information. As appropriate the following subsections are updated for each issue: existing environmental setting, the regulatory context within which the Project would occur, thresholds of significance, environmental impacts (both short-term and long-term), cumulative impacts, mitigation measures capable of minimizing environmental harm, and identification of level of significance after mitigation.

Chapter 4. Impact Overview: This chapter provides a summary of the Proposed Project's potential growth-inducing impacts; identifies Project impacts that are significant and unavoidable; discusses the environmental effects of the Proposed Project found not to be significant; and discusses irreversible changes to the natural environment resulting from the Proposed Project.

Chapter 5. Alternatives Analysis: This chapter analyzes feasible alternatives to the Proposed Project and identifies the Environmentally Superior Alternative. This chapter also discusses alternatives rejected from further consideration. The alternatives analyzed in this RDEIR consist of: No Project Alternative, Existing Zoning (4 new homes), Reduced Development (two-story structure, no ~~athletic~~ practice field, no pedestrian bridge), smaller footprint structure (four-story structure, no practice field), Zone Change (14 homes), subsurface construction, and a structure on the east side of Coldwater Canyon Avenue in the existing Southern Parking Lot.

Chapter 6. Lead Agency and Consultants; Organizations and Persons Contacted: This chapter identifies the public and private agencies and individuals contacted during the preparation of this report, and all individuals responsible for the preparation of this report.

Appendices: Data supporting the analysis or content of the RDEIR are provided in the appendices to the document. These include the Notice of Preparation and Responses, Initial Study, Biological Resources report, Protected Tree Report, Preliminary geotechnical report, Standard Urban Stormwater Mitigation Plan, and Traffic Report.

EIR PROCESS

As described in Section 15143 of the CEQA Guidelines:

> The EIR shall focus on the significant effects on the environment. The significant effects should be discussed with emphasis in proportion to their severity and probability of occurrence. Effects dismissed in an Initial Study as clearly insignificant and unlikely to occur need not be discussed further in the EIR unless the Lead Agency subsequently receives information inconsistent with the finding in the Initial Study.

As a first step in complying with the procedural requirements of CEQA, the City of Los Angeles published a ~~Notice of Preparation (~~NOP~~)~~ to inform responsible agencies and interested parties that an EIR was to be prepared for the Proposed Project and to request information and concerns relative to the potential environmental impacts of the Proposed Project.

In compliance with CEQA, the City of Los Angeles completed a multi-step process to determine the appropriate scope of issues to be examined in ~~this~~ the Draft EIR. The City filed the NOP with the State Clearinghouse (SCH No. ***2013041033***) in the Office of Planning and Research as an indication that an EIR would be prepared. A copy of the NOP and the responses received are included in **Appendix A** of this RDEIR. The NOP was distributed to involved public agencies and interested parties for a 30-day public review period, which began on April 12, 2013, and ended on May 13, 2013. A scoping meeting was held on April 25, 2013. The purpose of the public review period was to solicit comments on the scope and content of the environmental analysis to be included in the EIR. The City of Los Angeles received comments in response to the NOP; these comments are also included in **Appendix A** of this RDEIR.

During the preparation of the Draft EIR, agencies, organizations, and persons whom the City believed might have an interest in this Proposed Project were specifically contacted. Information, data, and observations from these contacts were included in the Draft EIR (and are included in ~~the~~ this RDEIR). Agencies or interested persons who did not respond during the public review period of the NOP or the review period of the Draft EIR will have an opportunity to comment during the public review period of the ~~Draft~~ RDEIR, as well as at subsequent hearings on the Proposed Project.

The Draft EIR was circulated for 66 days (October 10, 2013 to December 16, 2013). Comments were received on the Draft EIR (and are on file at the City Planning Department, Room 750, City Hall). After circulation of the Draft EIR changes to the Project were made (as identified above and explained in more detail in Chapter 2 Project Description). As a result of these changes and comments received on the Draft EIR, the RDEIR was prepared and is being circulated for public comment. Comments received on the Draft EIR are addressed as appropriate in this RDEIR and detailed Responses to Comments on both the Draft EIR and the RDEIR will be provided in the Final EIR.

The RDEIR identifies new text as underlined and deleted text as strike through (changes in capitalization and corrections of typographical-type errors are not always identified). The EIR has been clarified so that references to Project Site address the entire Campus including where the Parking Structure is proposed to be constructed and references to the Development Site address specifically the portion of the Project Site where the Parking Structure is proposed.

This ~~EIR~~ RDEIR has been prepared to meet all of the substantive and procedural requirements of CEQA (California Public Resources Code Section 21000 et seq.), the CEQA Guidelines (California Code of Regulations (CCR), Title 14, Section 15000 et seq.). ~~Accordingly,~~ The City of Los Angeles is the Lead Agency for this Proposed Project, taking primary responsibility for conducting the environmental review and approving or denying a project.

Any environmental impacts that cannot be mitigated to a less than significant level are considered to be significant and unavoidable. If a public agency approves a project that has significant and unavoidable impacts, the agency must state in writing the specific reasons for approving a project, based on the Final EIR and any other information in the public record for the project. This is termed a “statement of overriding considerations,” which is used to explain the specific reasons why the benefits of a project make its unavoidable environmental effects acceptable. The statement is prepared, if required, after the Final EIR has been completed, yet before action to approve a project has been taken.

AVAILABILITY OF THE ~~DRAFT~~ RDEIR

This ~~Draft~~ RDEIR is being distributed to affected agencies, surrounding cities, counties, and interested parties for a ~~66~~ 45-day review period in accordance with Section 15087 of the CEQA Guidelines. During the review period (which commenced on ~~October 10, 2013 and originally was to end on November 25, 2013 and was extended to December 16, 2013), the Draft EIR~~ February 4, 2016 and ends on March 21, 2016), the RDEIR (on CD) is available for general public review at the following locations:

City of Los Angeles Department of City Planning
200 North Spring Street, Room 750
Los Angeles, CA 90012

City Planning Department -Valley Office
6262 Van Nuys Boulevard, Room 351
Van Nuys, CA 91401

Central Library
630 West Fifth Street
Los Angeles, CA 90071

Studio City Branch Library
12511 Moorpark Street
Studio City, CA 91604

Sherman Oaks Branch Library
14245 Moorpark Street
Sherman Oaks, CA 91423

Encino-Tarzana Branch Library
18231 Ventura Boulevard
Tarzana, CA 91356

Additionally, the ~~Draft~~ RDEIR can be downloaded or reviewed via the Internet at the Department of City Planning's website [http://planning.lacity.org/ (click on "Environmental" and then "Draft Environmental Impact Report~~s~~")]. The RDEIR can be purchased on cd-rom for $7.50 per copy. Contact **Diana Kitching** of the City of Los Angeles at **Diana.Kitching@lacity.org** to purchase one.

Interested parties may provide written comments on the ~~Draft~~ RDEIR. Written comments on the ~~Draft~~ RDEIR must be received by 4:00pm on ~~December 16, 2013~~ March 21, 2016 and should be addressed to:

Diana Kitching
(ENV-2013-0150)
City of Los Angeles Department of City Planning
200 North Spring Street, Room 750
Los Angeles, CA 90012

Comments may also be submitted electronically to Diana Kitching at: Diana.Kitching@lacity.org.

Upon completion of the public review period, written responses to all comments on environmental issues discussed in the Draft EIR, RDEIR and raised by commenters will be prepared and incorporated into the Final EIR. These comments, and their responses, will be included in the Final EIR for consideration by the City of Los Angeles, as well as other public decision makers.

As noted above, comments received on the Draft EIR will be responded to in the Final EIR together with any additional comments received on the RDEIR. Therefore, if reviewers have the same comments on the RDEIR as they had on the Draft EIR, they need not submit the same comments again on the RDEIR.

2.0 PROJECT DESCRIPTION

OVERVIEW

This RDEIR has been prepared to evaluate potential environmental impacts that could result from the proposed Harvard-Westlake Parking ~~Structure~~ Improvement Plan, which would consist of a three-story (4-level), 750-space parking structure with a rooftop (lighted) ~~athletic~~ practice field ~~and,~~ associated retaining walls, and a debris basin. The Project includes a small (~~2,600~~ 2,562 square feet) enclosed (12 feet tall as measured from field level) structure including restrooms, an equipment storage room and athletic office at the north end of the ~~athletic~~ practice field as well as a catchment fence covering the entire field and light poles around the field. The Parking Structure would also include an approximately 289 square feet structure for a security office. In addition, the Project includes a pedestrian bridge crossing over Coldwater Canyon Avenue connecting the Parking Structure to the Harvard-Westlake Campus. The Project also proposes a series of traffic improvements and operational changes that would improve vehicular circulation along Coldwater Canyon Avenue, including but not limited to widening Coldwater Canyon Avenue to add new traffic lanes travelling south on Coldwater Canyon near the Project Site. The Project also includes changes to the existing entrances and parking configuration on the Harvard-Westlake Campus to improve vehicular circulation and provide for bus parking on-site rather than on Coldwater Canyon. The Project Site is comprised of the following: the Harvard-Westlake ~~Upper School (~~Campus ~~(Harvard-Westlake School Campus)~~, located at 3700 N. Coldwater Canyon Avenue and the Development Site, located at 3701 N. Coldwater Canyon Avenue. The Project Site is located in the Studio City area of the City of Los Angeles, California.

The City ~~of Los Angeles~~, as the Lead Agency, has the authority to prepare this ~~Draft EIR~~ RDEIR and, after the comment/response process, act upon certification of the Final EIR and make a decision as to whether to approve the Proposed Project. The City and responsible agencies have the authority to make decisions on discretionary actions relating to the Proposed Project. This ~~EIR~~ RDEIR is intended to serve as an informational document to be considered by the City and responsible agencies during deliberations on the Proposed Project to evaluate the Proposed Project's impact on the environment.

PROJECT LOCATION

The ~~Harvard-Westlake School Campus (~~Project Site~~)~~ is located on the east and west sides of Coldwater Canyon Avenue, approximately 0.3 miles south of Ventura Boulevard and 1.3 miles north of Mulholland Drive, in the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan area of the City ~~of Los Angeles~~.

The ~~Harvard-Westlake Campus~~ Project Site is approximately ~~24.5~~ 25.83 acres, comprised of two areas: 1) the approximately 19 acre ~~(831,268 square feet)~~ Harvard-Westlake Campus, located at 3700 N. Coldwater Canyon Avenue (it includes the following addresses: 3668, 3674, 3680, 3686, 3700, 3704, 3730, 3736, 3742, 3800, 3900 and 3946 N. Coldwater Canyon Avenue and 12749, 12750, 12825, 12835, 12845, 12853, 12871, 12877, 12886 and 12887 West Hacienda Drive, 3908 and 3920 North Avenida Del Sol) and generally bounded by Halkirk Street to the north, Coldwater Canyon Avenue to the west, and Hacienda Drive to the south; and 2) the approximately ~~5.5~~ 6.83-acre (~~238,740~~ 297,539.3 square feet pre-dedication) Development Site, comprised of an irregularly shaped portion of the ~~Campus~~ Project Site located on the west side of Coldwater Canyon Avenue (3683, 3701, 3703, 3705, 3707, 3717, 3719 and 3801 N. Coldwater Canyon Avenue; 12908, 12916, 12924, 12930 W. Hacienda Drive; and 3666, 3680 N. Potosi Avenue), directly across from the ~~main portion of the~~ Harvard-Westlake Campus.

The Project Site location and general vicinity are shown in **Figure 2-1**. A map showing the Harvard-Westlake ~~School~~ Campus and Development Site is provided in **Figure 2-2**.

The Project Site includes the Harvard-Westlake ~~School~~ Campus and the Development Site for the Proposed Project. The Project Site is located within the western section (Range 15 West, Township 1 North) of the United States Geological Surveys Van Nuys, California Topographical Quadrangle (7.5 Series, photo-revised, 1967).[1] The Project Site elevation ranges from approximately ~~720~~ 710 feet to 820 feet above mean sea level (AMSL).

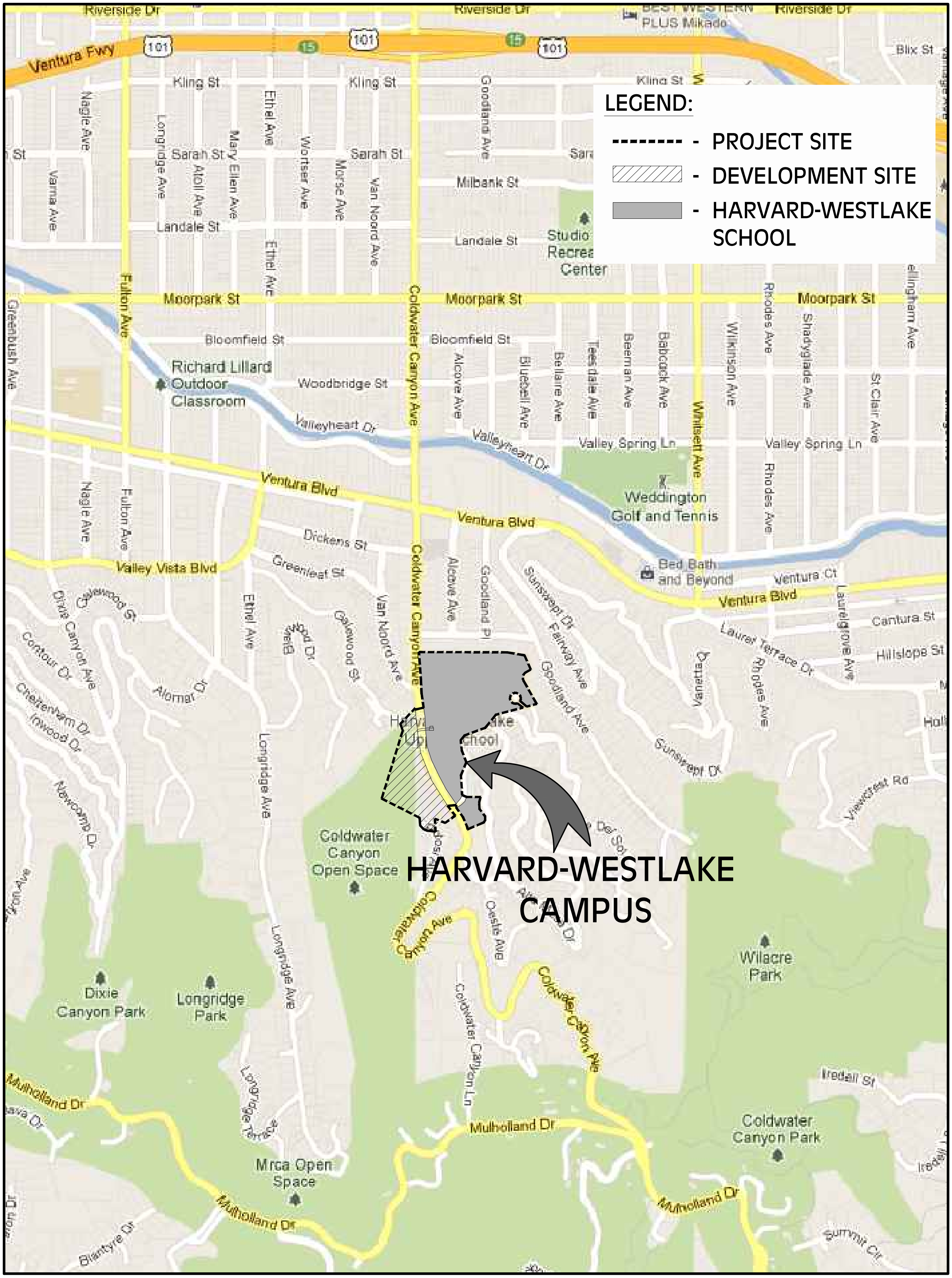
The Harvard-Westlake ~~School~~ Campus is comprised of the following Assessor's Parcel Numbers and lots:

APN	Area (square feet)	Lot	Arb	Block	Tract
2384-007-005	782,994.6	PT 1111	1	None	1000
2384-017-045	20,686.8	2	2	None	10046
2384-017-047	27,587.0	VAC 06-1218741	None	None	10046
Total	831,268.4				

The Development Site includes the following Assessor's Parcel Numbers and lots:

APN	Area (square feet) Post Dedication	Lot	Arb	Block	Tract
2385-018-001	~~33,488.9~~ 24,348.8	FR 135	1	None	6293
2385-018-002	~~15,854.2~~ 14,302.6	FR 135	2	None	
2385-018-003	~~29,455.5~~ 27,170.7	PT 1111	2	None	1000
2385-018-011	159,941.4	PT 1112	45	None	
2385-019-013	5,573.6	63	None	None	7442
2385-019-014	7,770.6	64	None	None	
2385-019-015	3,745.9	65	2	None	
2385-019-016	3,347.7	65	1	None	
2385-019-017	6,329.2	66	None	None	
2385-019-049	5,593.4	67	None	None	
2385-019-050	7,344.6	68	None	None	
2385-019-051	9,308.5	69	None	None	
Paper Hacienda	7,567.3	None	None	None	None
Total	~~238,740~~ 282,343.6				

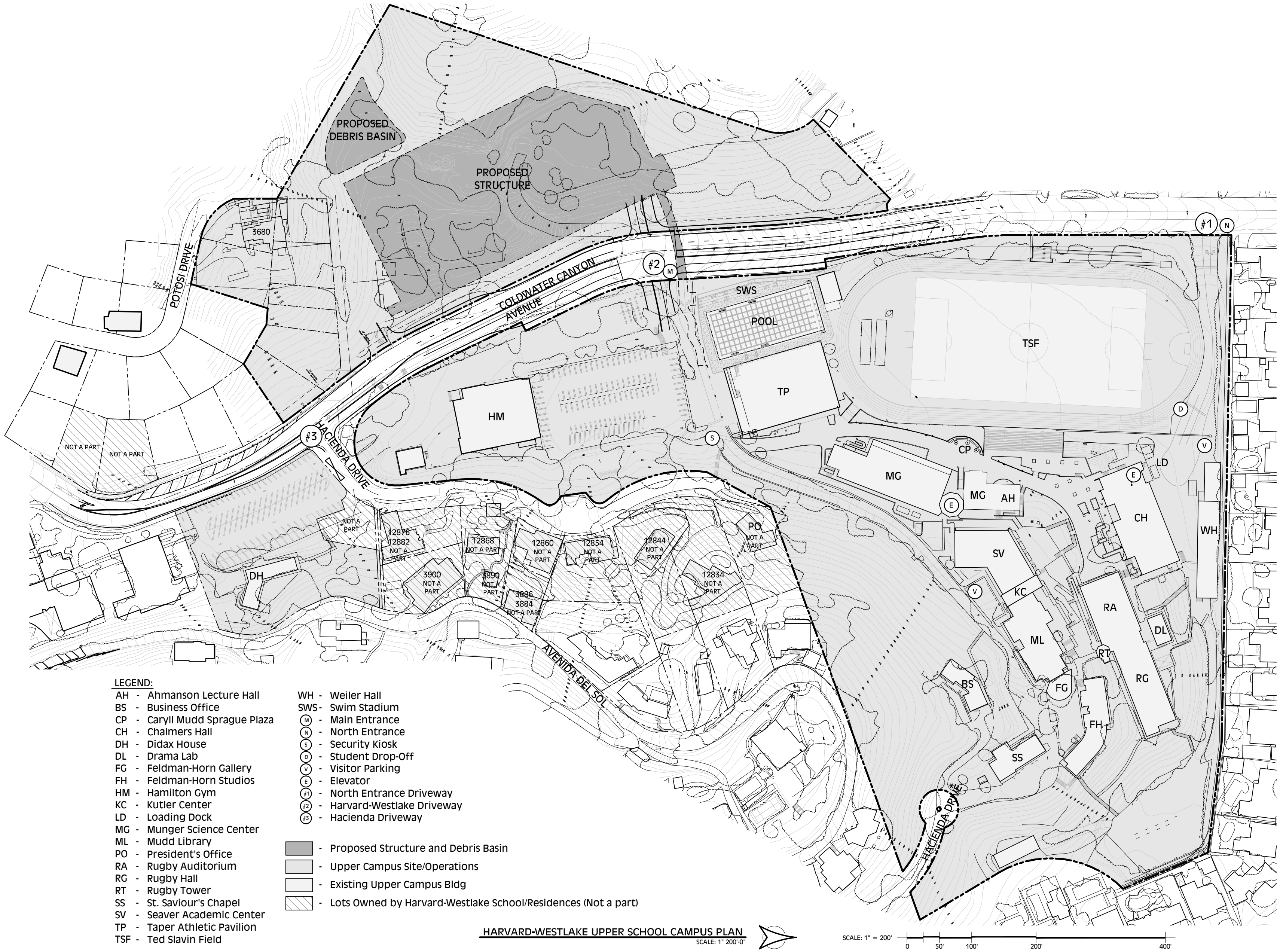
[1] No Section number for the Project Site is contained within the Canoga Park, CA Quadrangle.



SOURCE: IDG Parkitects, Inc.

Figure 2-1

Project Location



SOURCE: IDG Parkitects, Inc.

Figure 2-2

Harvard-Westlake Upper School Campus Plan

As indicated in the table above, eight parcels and Paper Hacienda, all owned by Harvard-Westlake, have been added to the Development Site, expanding it to the south. The reasons for their inclusion are twofold; first, subsequent to the Draft EIR circulation in 2013, the California Building Code (the Building Code) was updated to clarify the amount of airway required along two sides of a structure. For the Proposed Project, the required airway under the revised Building Code is 20 feet. However, compliant with the Building Code then in effect, the original (2013) Project design resulted in 5 feet of airway along the southern side of the Parking Structure and additional airway along Coldwater Canyon Avenue. Thus, the southern system of retaining walls was relocated 15 feet further south in order to provide the required 20 feet of airway under the revised Building Code. Secondly, extensive geotechnical sampling and analysis of the Development Site (see section 3.5 Geology, Soils and Hydrology for additional information) has resulted in the creation of detailed soil nail retaining wall plans. Based upon the bedrock characteristics and strength in that portion of the Development Site, and in order to achieve the required factors of safety for the retaining walls, soil nails were designed to extend from the relocated southern walls into the newly-added parcels. Approximately 300 soil nails would be used between the two southern walls, ranging in length from 50 feet to 140 feet. The nails would extend into the newly-added parcels to a maximum distance of 118 feet. All soil nails would be inclined 15 degrees. Thus, the soil nails would be subterranean along their entire length and would not be visible nor result in surficial disturbance of the newly-added parcels.

Harvard-Westlake School owns a number of lots east and south of the Harvard-Westlake Campus as well as ~~several~~ parcels south of the Development Site (south of the planned but unimproved ~~[~~paper~~]~~ street -- Hacienda Drive) that are ~~either~~ vacant ~~or improved with single-family homes~~ and are not part of the Harvard-Westlake Campus or the Project.

~~See~~ **Figure 2-3** shows the Project Site (the Development Site west of Coldwater Canyon Avenue plus the Harvard-Westlake Campus east of Coldwater Canyon Avenue) and other residences and lots owned by Harvard-Westlake.

On August 11, 2015, the Los Angeles City Council adopted Mobility Plan 2035. The information identified in Figure 2-3 relied on the dedication requirements in effect when the entitlement application was submitted to the City in January 2013. If the City requires the applicant to comply with the Mobility Plan 2035 standards, the applicant would be required to dedicate a 28-foot half street on a 43-foot half right-of-way as opposed to a 35-foot half roadway on a 45-foot half right-of-way, which is the requirement under the Transportation Element, adopted September 8, 1999, that was in effect when the entitlement application was submitted to the City.

PROJECT SETTING

The Harvard-Westlake Campus is one of two campuses in the Los Angeles area owned by the Harvard-Westlake School, an independent co-educational college preparatory ~~grade~~ school for students in grades 7 through 12. The Harvard-Westlake Campus, located at 3700 N. Coldwater Canyon Avenue, serves grades 10 through 12. The Harvard-Westlake middle school campus is located at 700 N. Faring Road, in Holmby Hills, and serves grades 7 through 9.

The Harvard-Westlake School has operated a private school in its present location since 1937, and is recognized as a Private Senior High School on the General Plan Land Use Map of the Community Plan.

Since opening at its present location in 1937, the Harvard-Westlake School has made various improvements to the Harvard Westlake Campus. For instance, in 2006, the Harvard-Westlake School installed four light pole structures with light fixtures at the Ted Slavin Field, its athletic field. In 2012, the Harvard-Westlake School constructed a 1,282 square foot extension in ~~the~~ its library and a 1,314 square foot reading room addition to connect two existing buildings with a passageway at the lower level. The City approved these improvements, referred to as the Kutler Center, because the City determined that these improvements did not increase the student population. In addition, in 2013, the Harvard-Westlake School replaced an old 25-yard swimming pool and pool house with a new 51-meter swimming pool and pool house that is substantially similar in size to the old pool house. The City determined that the new pool and pool house was private and for the sole use of the Harvard-Westlake School and would not be available for general public use, would meet the current athletic and curriculum requirements and needs of the Harvard-Westlake School, would not necessitate the accretion of the student population, and would include fan seating area equal to or less than provided by the prior pool. The Harvard-Westlake School was required to relocate the old two-story pool house because the new pool was extended.

The Development Site, located immediately across the street from ~~the main portion of~~ the Harvard-Westlake Campus, is primarily vegetated hillside land. The topography of the Development Site provides a natural (hillside) buffer on three sides. The Harvard-Westlake Campus on the east side of Coldwater Canyon Avenue provides a buffer on the fourth side of the Development Site. Photographs of the Project Site and area are provided in the Section 3.1 Aesthetics.

~~Over~~ Approximately half of the Development Site (~~2.91~~ 3.16 acres of the approximately ~~5.5~~ 6.83-acre site) is disturbed, and has been previously graded with a number of relatively flat areas. In addition, approximately 0.30 acres are occupied by a vacant single-family home (3680 Potosi Avenue) and associated hardscape. The remainder of the Development Site consists of generally undisturbed, ~~heavily~~ moderately vegetated north and east-facing slopes (with an elevation gain of 100 feet on the site with an additional up to 200 feet of elevation gain to the ridgeline above) with two west to east trending drainages traversing the Development Site. The easternmost flatter, graded portion of the site has been used for temporary storage of construction equipment and supplies. At the time of the biological survey (see **Appendix D.1**), two houses occupied this eastern part of the site; these residences were subsequently demolished in 2011. Demolition of the houses only affected the area of the site that was already characterized as disturbed area in the biological survey; the demolition did not affect this biological characterization.

Uses adjacent to the Development Site include the following:

North. Zoned R1-1 & RE15 1-H: Single-family residential uses are located to the north of the Harvard-Westlake Campus.

South. Zoned R1-1: Single-family residential neighborhood. The St. Michael and All Angels Episcopal (St. Michael's) Church is located south of the Harvard-Westlake Campus and is also located in the R1 Zone.

East. Zoned RE15-1-H and R1-1: Across Coldwater Canyon Avenue Harvard-Westlake Campus and single-family residential neighborhood beyond.

West. Zoned RE15-1-H and RE40-1-H: Coldwater Canyon Open Space (west and continuing southwest of the site) and single-family residences further to the west.

~~The athletic field would be at an elevation of approximately 755 feet AMSL. Four residences (plus one residence on Potosi owned by Harvard-Westlake) are located adjacent to the Development Site (plus one~~

~~residence on Van Noord the corner of that property touches the Development Site). Of the four adjacent private residences all are located at a higher elevation than the athletic field; one is lower than the lights but higher than the field. The closest residential property line~~ **Table 2-1** sets forth the distances from residential structures and property lines to ~~the construction limits is located approximately 91 feet to the north (12917 Galewood); it is located at an elevation of approximately 765 feet AMSL (i.e. 10 feet above the field level and 28 feet 6 inches below the height of the lights). This residential property line would be 303 feet from the Parking Structure and 297 feet from the athletic field. The property located at 12920 Galewood would be the closest to the Parking Structure; the property line for that residence would be 222 feet from the Parking Structure and 217 feet from the athletic field. In general, the residences to the north and northwest are located at elevations ranging from 831 feet AMSL to 945 feet AMSL (from east to west) and at distances of 222 feet to 362 feet from the structure. (~~construction activity, the Parking Structure, and the practice field.

TABLE 2-1: DISTANCES FROM RESIDENTIAL STRUCTURES AND PROPERTY LINES TO CONSTRUCTION ACTIVITY, PARKING STRUCTURE AND PRACTICE FIELD

Address	Elevation of Residence (AMSL) Relative Height Compared to Field/Lights	Distance from Residence / Property Line to Construction Limit Line	Distance from Residence / Property Line to Parking Structure	Distance from Residence / Property Line to Practice Field
3901 N. Van Noord*	716 ft -39 feet/-78	77 ft./16 ft.	405 ft./ 351 ft.	509 ft./ 434 ft.*
12917 W. Galewood	765 ft. +10 feet/-29feet	92 ft./15 ft.	303 ft./ 257 ft.	297 ft./ 252 ft.
12920 W. Galewood	831 ft. +76 feet/+37 feet	167 ft// 171 ft.	204 ft. / 200 ft.	186 ft./ 184 ft.
12949 W. Blairwood	866 ft. +111 feet/+72 feet	197 ft./ 191 ft.	225 ft./ 200 ft.	219 ft./ 184 ft.
12952 W. Blairwood	945 ft. +190 feet/+151 feet	308 ft./ 209 ft.	362 ft./ 237 ft.	356 ft./ 231 ft.
3663 Potosi	849 ft. +94 feet/+55 feet	279 ft./ 223 ft.	373 ft./ 318 ft.	367 ft./ 313 ft.

* The property line for this residence is adjacent to the Development Site; there is no line of sight from the residence to the practice field. The residence is below the level of the field and lights and the line of sight would be blocked by the Parking Structure itself. There is also an intervening vegetated hillside that would substantially block line of sight to the Parking Structure.

SOURCE: Innovative Design Group

The site plan and relationship to immediately adjacent uses are discussed more fully in Section 3.1 Aesthetics/Views. See in particular **Figure 3.1-23** Site Plan Showing Relationship to Adjacent Uses in Section 3.1 Aesthetics.~~)~~

Homes to the east of the Harvard-Westlake Campus (approximately 500 feet east of the Development Site), that overlook the Development Site, generally range in elevation from 28 feet below the Field Level of the Parking Structure to 110 feet higher than the Field Level of the Parking Structure.

Vehicular access to the Harvard-Westlake Campus is presently provided via three driveways (see description below) on the east side of Coldwater Canyon Avenue. A total of 578 parking spaces are currently provided on the Harvard-Westlake Campus.[2] In addition ~~the School~~ Harvard-Westlake uses off-campus spaces~~:~~ including 40 spaces in the St. Michael's lot (through an agreement with St. Michael's), as well as spaces in the neighborhood.

The Harvard-Westlake Campus is located in a residential neighborhood that contains other institutional uses. The Saint Michael's and All Angels Episcopal Church is located adjacent to the Harvard-Westlake Campus at 3646 Coldwater Canyon Avenue. Saint Michael's currently leases its school space to the Sunnyside Preschool. Saint Michael's also offers Sunday school. In addition, TreePeople (an environmental non-profit organization) leases a site to the southwest at 12601 Mulholland Drive (at the intersection of Coldwater Canyon Avenue and Mulholland Drive), within the City's Coldwater Canyon Park. The TreePeople site, which is zoned OS-1XL with a General Plan Land Use designation of Open Space, includes a recreation and education center with related facilities.

PROJECT OBJECTIVES

The 578 parking spaces currently provided on the Harvard-Westlake Campus do not accommodate the parking demand generated by the Harvard-Westlake School. The Harvard-Westlake Campus currently has one playing field (Ted Slavin Field), which cannot accommodate practices and games related to all of the numerous sports for boys and girls offered by the Harvard-Westlake School, such as football, lacrosse, field hockey, soccer and track and field. Many of the Harvard-Westlake School teams currently practice off-site.

The Proposed Project, which consists of the construction of a 750 space Parking Structure with a rooftop ~~athletic~~ practice field, is guided by the following goals and objectives:

- Increase on-site parking supply for the Harvard-Westlake Campus for regular school use, as well as for typical school-related activities outside of regular school hours, essentially eliminating the need for school-related vehicles to park on-street, either on Coldwater Canyon Avenue or in the residential neighborhood north of the Harvard-Westlake Campus.

- Improve area circulation by removing vehicles and buses parking on Coldwater Canyon Avenue and on other nearby residential streets.

- Improve the flow of traffic on Coldwater Canyon Avenue by constructing the following public improvements at no cost to the City or to the community:
  - Provide one northbound through lane and two southbound through lanes on Coldwater Canyon Avenue along the Development Site frontage (resulting in the addition of one southbound through lane).
  - At the intersection of Coldwater Canyon Avenue and the Development Site's northerly driveway opposite the relocated Main Entrance driveway, provide:
    - Northbound: One left-turn lane, one through lane and one right-turn lane;
    - Southbound: One left-turn lane, two through lanes and one right-turn lane;
    - Eastbound: One left-turn lane and one optional through/right-turn lane; and

[7] Certificate of Occupancy dated March 6, 2013.

  - ▪ Westbound: One left-turn lane and one optional through/right-turn lane.
- o At the intersection of Coldwater Canyon Avenue and the Development Site's northerly driveway opposite the relocated Main Entrance, provide new traffic signal equipment, including left-turn phasing for northbound and southbound Coldwater Canyon Avenue traffic, and LADOT's ATSAC/ATCS equipment with connection to the Coldwater Canyon Avenue intersection at Ventura Boulevard.
- o At the intersection of Coldwater Canyon Avenue and the Development Site's southerly driveway, provide:
  - ▪ Northbound: One through lane (i.e., no left-turns from northbound Coldwater Canyon Avenue to the southerly driveway would be permitted).
  - ▪ Southbound: Two through lanes and one right-turn lane.
  - ▪ Eastbound: One optional left-turn/right-lane (controlled by a stop sign, with no left-turns permitted weekdays 7:00 a.m. – ~~6:00~~ 7:00 p.m.).

- Enhance safety and security associated with vehicular and pedestrian circulation on the Harvard-Westlake Campus and in the surrounding area, including the relocation of:
  - o Cars that currently park off-campus along Coldwater Canyon Avenue and neighboring streets, and
  - o School bus drop-off/pick-up operations on-site.

- Enhance ~~playing~~ practice field facilities to increase opportunities for recreational activities on campus. The number of events that occur on-campus would not change. The school would be able to hold simultaneous practice sessions on separate fields instead of on the same field as currently occurs.

PROJECT CHARACTERISTICS

Parking Structure

The Proposed Project consists of the development of a three-story (4-level) Parking Structure with 750 parking spaces~~ and~~, a rooftop (lighted) ~~athletic~~ practice field with an ancillary 2,582 square foot enclosed structure for offices, restrooms and equipment storage use. The Parking Structure would also include an approximately 289 square feet structure for a security office. The ~~building~~ Parking Structure would be 45 feet to the field level (approximately 755 feet AMSL), and 57 feet (767 feet AMSL) to the top of the ancillary structure proposed to be located at the north end of the field. The Parking Structure would also feature a catchment fence around and on top of the field atop the structure (32 feet above the field level, approximately ~~387~~ 787-feet AMSL). There would be approximately ~~10~~ 14 light poles, each with ~~two or three~~ four LED fixtures that would reach a height of approximately seven feet above the catchment fence, or 39 feet above the field, with the total overall height up to approximately 84 feet (794 feet AMSL).

The proposed Parking Structure would be used for parking purposes only, with no student drop-off and pick-up operations permitted on the Development Site. All student drop-offs and pick-ups would continue to be accommodated on the Harvard-Westlake Campus, although in a slightly modified configuration to allow for a safer and more efficient operation for motorists and pedestrians and improved vehicular circulation near the ~~Main Entrance~~ main entrance driveway.

The Proposed Project would also relocate school bus loading and unloading from Coldwater Canyon Avenue to within the Harvard-Westlake Campus, and eliminate the use of local streets by students and visitors for parking for all but the biggest special events, such as graduation and homecoming.

Practice ~~Athletic~~ Field and Lighting

An open, approximately 330-foot long by 195-feet wide, 64,350-square foot ~~athletic~~ practice field comprised of synthetic turf would be located on the top level of the Parking Structure. The footprint of the ~~athletic~~ practice field would be larger than the footprint of the Parking Structure and would be cantilevered out from the top of the Parking Structure. It would extend five feet beyond the Parking Structure walls on the north and south, ~~six~~ 6 feet 9 inches from the east face along Coldwater Canyon Avenue and 25 feet 3 inches on the west (see **Figure 2-4**). The rooftop ~~athletic~~ practice field would be used for school-related athletic practice activities by the Harvard-Westlake School. An approximately 12-foot tall, ~~2,600~~ 2,582 square foot ancillary structure containing an equipment room, office and restrooms would be located on the north end of the field. ~~The athletic field would be used by the School.~~ The ~~rooftop~~ ~~athletic~~ practice field would include nighttime lighting, to be used as needed up to 8 pm during weekdays (no weekend ~~use~~ lighting). The ~~athletic~~ practice field would be an integral part of Harvard-Westlake School's athletic program and would relieve the demand and use of the Harvard-Westlake Campus' Ted Slavin Field, which is currently used for practice and game events for numerous sports. There would be no bleacher or other seating for audience seating. In addition, there would be no public address system at the rooftop ~~athletic~~ practice field.

The catchment fence (32 feet tall), proposed around the perimeter and on top of the ~~athletic~~ practice field would ensure that loose balls do not affect vehicles driving on Coldwater Canyon Avenue. Lighting for the field would be integrated into the catchment fence with approximately ~~10~~ 14 poles (each with ~~two to three~~ four LED fixtures) located around the perimeter of the field reaching seven feet above the catchment fence. Although the catchment fence is technically a structure, it would primarily consist of netting that would be marginally visible. Lighting (on ~~10~~ 14 poles that would be 7 feet above the catchment fence) would be directed towards the field and would include a state-of-the-art lighting system (such as Musco Green Systems) to minimize direct spillover of light on to adjacent properties.

The proposed Parking Structure would also include interior lighting from shielded LED, metal-halide or fluorescent fixtures on motion sensor controls for each level and in segregated areas. All interior lighting point sources would be shielded from exterior view.

Pedestrian Bridge

The Proposed Project also includes a pedestrian bridge crossing Coldwater Canyon Avenue that would connect the proposed Parking Structure to the Harvard-Westlake ~~School~~ Campus. The proposed pedestrian bridge would allow for safe crossing between the Parking Structure and the Harvard-Westlake Campus without stopping vehicles traveling north and south along Coldwater Canyon Avenue. For safety reasons associated with the danger of speeding vehicles currently traveling along Coldwater Canyon Avenue, no pedestrian access to the Development Site would be provided from the street. Similarly, a sidewalk would not be provided along the west side of Coldwater Canyon Avenue so as to further discourage the possibility of student drop-off or pick-ups from occurring along the west side of Coldwater Canyon Avenue. The pedestrian bridge would be fully accessible in compliance with the requirements of the Americans with Disabilities Act.

The pedestrian bridge would reach a height of approximately 41 feet in the center (approximately 18 feet as measured from the bottom of the bridge to the top of the bridge). The height at the top of the elevator on either end of the bridge would be approximately 65 feet on the west side and approximately 46 feet on the east side. The bridge would be approximately 163 feet long and 13 feet wide and would provide a minimum vehicular clearance of approximately 25 feet 7 inches above Coldwater Canyon Avenue (at the curb). Connection to the pedestrian bridge would be provided at Level 2 of the proposed Parking Structure and a bridge landing would be constructed on the Harvard-Westlake Campus. Pedestrians would be able to access the Harvard-Westlake Campus from the Parking Structure, and vice versa, only via the proposed pedestrian bridge crossing Coldwater Canyon Avenue. The pedestrian bridge would be enclosed with a metal screen over Coldwater Canyon Avenue (between the elevator towers) to prevent objects from ~~being thrown~~ falling from the bridge. The pedestrian bridge would be secured when the ~~school~~ Harvard-Westlake School is closed to prevent unauthorized access to the pedestrian bridge.

Retaining Walls

~~Two retaining walls are also proposed on the Development Site. The primary retaining wall would be located on the north, west and south sides of the Parking Structure. Along the rear (west side) of the Parking Structure, the retaining wall would step back from east to west at the third level of the Parking Structure and would vary in height from 50 feet to 87 feet. The south face of the retaining wall would vary in height from 20 feet to 60 feet (from east to west), and the north face of the wall would vary in height from 30 feet to 70 feet (from east to west). The second retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This retaining wall would vary in height from 4 feet to 28 feet (from north to south). Due to the topography of the Development Site, the retaining walls are necessary to protect the adjacent hillsides and to construct the Parking Structure.~~ Four soil nail retaining walls are proposed on the Development Site in order to protect the adjacent hillsides and to construct the Parking Structure. The first soil nail retaining wall is located along the rear (west side) of the Parking Structure and is the lower portion of a stepped wall design along that section. It varies in height from 28 feet to 30 feet (south to north). The second soil nail retaining wall is the upper portion of the stepped retaining wall along the west side of the Parking Structure and also extends around the north and south sides of the Parking Structure. The south face of the second soil nail retaining wall would vary in height from 18 feet to 58 feet (from east to west), and at its eastern endpoint is directly abutted by a conventional retaining wall that gradually transitions to grade along the proposed southern access road. The west face of the second soil nail retaining wall varies from 52 feet to 90 feet in height (including the height of the first soil nail retaining wall), and the north face from 46 feet to 62 feet (from east to west). The third soil nail retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This soil nail retaining wall would vary in height from 17 to 44 feet (from north to south). The northern end of the third soil nail retaining wall terminates at an energy dissipation structure that, along with flow-through planters, treats and controls the flow of storm water so that it can be safely discharged onto Coldwater Canyon Avenue. The fourth soil nail retaining wall would be on the south end behind the south side of the second soil nail retaining wall and would vary in height from 4 feet to 23 feet (from east to west). All retaining wall height measurements include a 3-foot high protective fence. As discussed earlier, the relocation of the southern retaining walls (the south face of the second retaining wall and the fourth retaining wall) and the soil nail design resulted in the addition of parcels, owned by Harvard-Westlake, to the Development Site.

The design of the retaining walls is intended to blend into the natural hillside area through the use of textured and colored concrete. The retaining walls also maximize the amount of open space areas to the west of the Parking Structure within the steep hillside that has been designated as “Desirable Open Space” on the Community Plan Land Use Map. The retaining walls would also be shielded by landscaping to further minimize their appearance from surrounding areas.

Debris Basin & Deflection Walls

A debris basin is proposed to be located in the southwest corner of the Development Site. The debris basin would be earthen material. The 0.22-acre basin would be surrounded by trees (within the newly landscaped area) that would be a mix of native vegetation (oaks) and other landscape trees. Its purpose is to collect and discharge water or other surficial runoff, such as might occur during a heavy rain event, from the hillside areas to the south and west. Similarly, ten deflection walls are also proposed (average length of 13 feet and ranging in height from 18 inches to three feet) on the northwest side of the Development Site. They would be installed along a 30-degree angle to the adjacent ascending topography and would deflect surficial runoff into a downstream debris channel to maintain positive flow.

Roadway Dedications/Traffic Improvements

The Proposed Project includes a property dedication on the west side of Coldwater Canyon Avenue, along the Harvard-Westlake School's property frontage, of 15 feet to provide the City's standard half right-of-way dimension for Secondary Highways, as measured from the roadway centerline. On the southbound Coldwater Canyon Avenue approaches to the two driveways proposed to serve the Parking Structure, ~~a widening of at least 11 feet is proposed to provide the minimum 35-foot half-street dimension. The~~ roadway widening is proposed ~~at the driveway approaches~~ so as to allow for the striping of separate right-turn lanes for each intersection. The widening would allow for a separate 300-foot long northbound left-turn lane and a 200-foot long southbound right-turn lane at the northerly (signalized) intersection. A separate 100-foot southbound right-turn lane would also be provided at the southerly driveway. Two southbound through lanes on Coldwater Canyon Avenue would also be installed to provide additional capacity for southbound traffic and minimize potential delay and loss of green-time to non-School related vehicles on Coldwater Canyon Avenue adjacent to the Project Site.

In summary, the following roadway improvement features are proposed to Coldwater Canyon Avenue in conjunction with the Project (see also **Figure 2-16**):

- Provide one northbound through lane and two southbound through lanes on Coldwater Canyon Avenue along the Development Site's frontage (i.e., addition of one southbound through lane).

- At the intersection of Coldwater Canyon Avenue and the Proposed Project's northerly driveway opposite the relocated Main Entrance, provide:

  - Northbound: One left-turn lane, one through lane and one right-turn lane;
  - Southbound: One left-turn lane, two through lanes and one right-turn lane;
  - Eastbound: One left-turn lane and one optional through/right-turn lane; and
  - Westbound: One left-turn lane and one optional through/right-turn lane.

- Also at the intersection of Coldwater Canyon Avenue and the Proposed Project's northerly driveway opposite the relocated Main Entrance, provide new traffic signal equipment, including left-turn phasing for northbound and southbound Coldwater Canyon Avenue traffic, and LADOT's ATSAC/ATCS equipment with connection to the Coldwater Canyon Avenue intersection at Ventura Boulevard.

- At the intersection of Coldwater Canyon Avenue and the Proposed Project's southerly driveway, provide:

- Northbound: One through lane (i.e., no left-turns from northbound Coldwater Canyon Avenue to the southerly driveway would be permitted);
- Southbound: Two through lanes and one right-turn lane; and
- Eastbound: One optional left-turn/right-lane (controlled by a stop sign, with no left-turns permitted weekdays 7:00 a.m. – 7 ~~6~~:00 p.m.).

To enhance safety for students and others using the Project Site, no pedestrian crossings are proposed at the street level. Accordingly, a sidewalk is not proposed along the west side of Coldwater Canyon Avenue so as to further discourage the possibility of student drop-off or pick-ups from occurring along the west side of Coldwater Canyon Avenue. The Project proposes to landscape the strip of public right-of-way between the westerly curbline and westerly property line. Additionally, no crosswalks are proposed across Coldwater Canyon Avenue adjacent to the Development Site, including at the signalized intersection with the Project's northerly driveway across from the main entrance driveway. As previously noted, a pedestrian bridge is proposed connecting the proposed Parking Structure with the Harvard-Westlake Campus.

Landscaping

As illustrated in **Figure 3.1-26** in Section 3.1 Aesthetics, the Proposed Project would include ~~vegetation~~ new landscaping and permeable area, or be undisturbed except for planting new native vegetation/mitigation trees on approximately ~~60~~ 63.98% of the Development Site. The maximum proposed building footprint~~, or maximum lot coverage,~~ for the Parking Structure is proposed to be ~~35.1~~ 28.12%, plus an additional approximate ~~4.5% of hardscape areas.~~ 4.69% of driveway and new street paving. Approximately ~~39.9~~ 33.55% of the Development Site would ~~remain with existing vegetation (augmented with~~ be undisturbed Development Site except for planting new native vegetation/mitigation trees~~)~~, and approximately ~~20.5~~ 30.43% of the Development Site would be ~~newly landscaped using native vegetation~~ new drought tolerant landscaping (1.86 acres) and permeable area (0.22 acres). ~~Additional landscaping is also proposed outside of the property lines along Coldwater Canyon Avenue.~~ The vegetation would be designed to screen the Proposed Project and debris basin, and minimize ~~its~~ their appearance. The Potosi residence and its associated hardscape is approximately 3.21% of the site.

The Harvard-Westlake ~~School~~ Campus main access driveway would also include new landscaping to provide an attractive entrance to the school.

Of the ~~315~~ 338 protected trees located on the Development Site, ~~129~~ 147 are proposed to be removed (~~12~~ 13 oaks and ~~117~~ 134 walnuts), ~~26~~ 20 are proposed to sustain permanent encroachment and ~~160~~ 171 are proposed to be preserved in place.[3] The Development Site includes several hundred trees/shrubs that do not meet the 4-inch diameter at breast height (dbh) threshold identified in the Protected Tree Ordinance as well as other trees not protected by ordinance. A numerical count of these trees was not taken because these individual trees are not protected. Rather this is a protected habitat type and therefore the environment is characterized by habitat type. The Project would impact ~~0.95~~ 1.43 acres of Southern Live Oak Woodland/Southern Walnut Woodland~~ as well as an additional 0.10 acres of adjacent woodland area; 2.24~~; 3.33 acres of Southern Live Oak Woodland/Southern Walnut Woodland are present on-site ~~(2.97 acres are present within the area surveyed)~~ so the majority of this protected woodland community would remain undisturbed. The Development Site contains ~~2.91~~ 3.16 acres of landscaped/disturbed area plus an additional ~~0.33~~ 0.34 acres of ruderal land, of which ~~2.79~~ 3.0 acres would be impacted by the Project. Therefore the majority of the Development Site that would be

3 The number of protected trees impacted by the Project was revised based on an updated tree count (see Appendix ~~D.2A~~ D.3) because the construction footprint was revised to reflect an additional 15 feet of clear area atop the proposed retaining walls and the Development Site was expanded to include additional area to the south.

impacted is already disturbed~~ (an additional 0.01 acres of landscaped/disturbed area, is located off-site on property owned by Harvard-Westlake -- within 10 feet of the construction limits and could be impacted by the project)~~. See **Figure 3.3-2** in Section 3.3 Biological Resources for a map of vegetation types and the construction limit line and building footprint. **Figure 3.1-22** in Section 3.1 Aesthetics shows proposed site land coverage (structure, driveway, new landscaping, existing vegetation [to be augmented with new native vegetation plantings including trees planted to mitigate loss of protected trees]).

The City requires that the impacts of all protected trees that are removed be mitigated upon completion of construction at a 2 to 1 ratio (City of Los Angeles Municipal Code 17.05R4(a)). However, the Harvard-Westlake School proposes to replace all removed protected trees at a 4 to 1 ratio, which is consistent with City practices and exceeds the actual minimum requirements. Trees that the City determines to be dead (i.e., health grade "F") do not need to be replaced. Based on the tree inventory and associated condition grades, the 132 protected, non-dead trees to be removed would be replaced with 528 mitigation trees. In addition, the City requires all non-protected trees that are significant in size that are removed to be replaced at a 1 to 1 ratio. The School would replace all non-protected trees that are significant in size at a 1 to 1 ratio. ~~To comply with the current Board of Public Works policy of requiring the replacement of protected trees at a 4:1 replacement ratio, at least 516 mitigation trees (the species to be approved by the City's Urban Forrester) are proposed to be planted on the open space areas of the Development Site (as noted above approximately 60% of the Development Site would be open space) or other location as determined by the Forestry Division.~~ See Section 3.3 Biological Resources for a more detailed discussion of impacts to protected trees and biological resources.

Changes to Harvard-Westlake Campus

As part of the Proposed Project, the Harvard-Westlake ~~School~~ Campus main entrance driveway would be relocated approximately 37 feet to the south along Coldwater Canyon Avenue to align with the proposed northerly Project driveway (this would result in the loss of 140 parking spaces from the parking lots south of the main entrance driveway and parking spaces located along the driveway). Similar to the existing main entrance driveway, the proposed relocated intersection with the northerly ~~Project~~ parking structure driveway would be controlled by a traffic signal, with new traffic signal equipment provided based on LADOT requirements. The east landing of the pedestrian bridge would be constructed on the Harvard-Westlake Campus. A new pedestrian promenade would be created from the bridge in to the center of Campus.

A bus pick-up/drop-off zone would be provided on the Harvard-Westlake Campus in the Southern Parking Lot, which would result in the elimination of the use of approximately 103 parking spaces from the Harvard-Westlake Campus (however, these 103 parking spaces would remain as overflow parking, as needed, for special events). Special events do not usually occur at the same time as regular bus activity. During special events, associated bus service (team and event buses) would use the north driveway (as at present).

Through the reconfiguration of the existing main entrance driveway into the Harvard-Westlake Campus and the resulting removal of 140 parking spaces from the parking lots south of, and along, the main entrance driveway, and the 103 parking spaces displaced within the Southern Parking Lot for the bus pick-up/drop-off zone, a total of 335 surface parking spaces[4] would remain on the main portion of the Harvard-Westlake Campus. With the development of the 750-space Parking Structure and the 335 remaining parking spaces, a total of 1,085 parking spaces would be provided for the Harvard-Westlake

[4] Not including the bus parking zone in the Southern Parking Lot, as discussed above.

Campus. During events, 1,188 spaces would be available on the Harvard-Westlake Campus. (See parking discussion below and in Section 3.8 Transportation, Circulation and Parking.)

Special Events and School Hours

The Harvard-Westlake School's current hours of operation are as follows:

> Monday - Friday: 6:30 am - 11:30 pm; classroom hours are 8:00 am – 3:10 pm on Monday and 8:00 am – 2:35 pm Tuesday through Friday
> Some Weekends (Saturday and Sunday): 6:30 am - 11:30 pm

The Harvard-Westlake Campus would continue to operate these same hours with the Project.

The ~~proposed hours of operation for the athletic field on the top level of the Parking Structure are as follows:~~ practice field will be used Monday through Friday from 8:00 am to 8:00 pm, and on weekends and holidays from 8:00 am to 5:00 pm. There will be no lights used on the practice field on weekends.

- ~~Summer Recess (Mid-June to September 1): Monday - Friday: 7:00 am - 7:30 pm~~
- ~~Winter Term: Monday - Friday: 2:30 pm - 8:00 pm, Saturdays: 8:00 am - 1:00 pm~~
- ~~Spring Term: Monday - Friday: 2:30 pm - 8:00 pm, Alternating Saturdays: 9:00 am - 12:00 noon, or 10:00 am - 3:00 pm~~
- ~~Fall Term: Monday - Friday: 2:30 pm - 8:00 pm, Saturdays: 8:00 am - 1:00 pm~~
- ~~Year Round: Occasional use on Sundays~~

~~The proposed rooftop athletic field would not be used after 8:00 p.m. on weeknights and would be used only during limited daytime hours on weekends.~~

No change in the number or size of special events as compared to those held over the past several years on the Harvard-Westlake Campus is proposed. Special events at the Harvard-Westlake School are comprised of conventional school operations including, but not limited to, the following: parent-teacher nights, musicals and other student performances, sports events, fundraising events, and graduation.

Design

A Project elevation, floor plans, renderings and traffic and parking improvements are shown in **Figures 2-4** through **2-16** at the end of this section.

The Parking Structure has been designed to blend into the surrounding natural hillside area. The Project includes natural colors, design elements to reduce building massing, and landscaping for screening. The hillside areas to the west would remain undeveloped with native vegetation and abundant trees.

The proposed Parking Structure includes a front yard setback of approximately 20 feet along Coldwater Canyon Avenue at ground level, and approximately 13 feet at the ~~athletic~~ practice field level~~, a~~. A secondary retaining wall along a portion of Coldwater Canyon Avenue that is necessary to stabilize the hillside would be located ~~set back~~ approximately ~~15 feet from~~ along the property line and approximately ~~21~~ 14 feet increasing to 23 feet from the roadway curb. A service access ramp for ~~Fire Department~~ service and emergency access to the roof would be provided at the southern end of the site (no setback from the roadway). The pedestrian bridge support would be set back approximately 49 feet from the street on the west side of Coldwater Canyon Avenue; and would be set back approximately 16 feet from the street on the east side.

The pedestrian bridge would provide safe access from the Parking Structure over Coldwater Canyon Avenue to the ~~School's~~ Campus. It would be ~~168~~ 163 feet long, 13 feet wide and would provide a minimum vehicular clearance of approximately 25 feet 7 inches ~~ft.~~ over Coldwater Canyon Avenue, with elevators and stairs provided at each end. The bridge would be a bowed-truss open frame structure with a translucent panel covered walkway and solid panel wainscot and security mesh screening on the sides. The bridge and elevator/stair design and finishes would be designed to minimize intrusion in the streetscape through lighter colors, translucent materials where possible, slender building elements, and setbacks.

There would be a minimum of approximately ~~69~~ 52-foot (increasing to ~~112~~ 169 feet as a result of the irregular shape of the Development Site and orientation of the ~~building~~ Parking Structure) side yard setback along the southwesterly property line (which generally runs east-west) from the retaining walls to the property line, and a minimum approximately ~~47~~ 57-foot (increasing to ~~170~~ 196 feet) side yard setback along the northerly property line. A minimum of approximately ~~29~~ 35-feet ~~foot~~ at the northwest corner (increasing to approximately ~~213~~ 206 feet along the western property line) rear yard setback would be provided along the westernmost property line that is approximately parallel to Coldwater Canyon Avenue.

The ~~steep~~ slopes contained on the southern, western, and northern portions of the Project ~~require~~ suggest that the proposed Parking Structure ~~to~~ is best ~~be~~ constructed closer to Coldwater Canyon Avenue. This orientation allows for the Development Site to maintain a large amount of open space to the west ~~rear~~, where the property remains in its natural ~~vegetated~~ state and abuts land that is within the designated "Desirable Open Space" area.

The proposed retaining walls would be constructed with finishes that would allow them to blend in with the hillside. The proposed cast-in-place, soil-nail and conventional concrete walls would be provided with a natural appearing rock finish and colored to match the indigenous rock to mitigate the appearance of the ~~wall~~ walls.

As a result of the irregular shape of the Development Site, the southwestern point of the Parking Structure and retaining wall would encroach in the southerly and north-south running southwesterly side yards to keep the Parking Structure at a maximum distance from the open space hillside area to the west. On the west side of Coldwater Canyon Avenue, there are four private residences to the north that overlook the ~~project site~~ Project Site, plus one to the south (not including the home owned by Harvard-Westlake).[5] On the east side of Coldwater Canyon Avenue, numerous homes overlook the Harvard-Westlake Campus and the Development Site. The ~~athletic~~ practice field level would be approximately ~~217~~ 186 feet from the closest private residence structure (12920 Galewood) located to the south. The retaining wall would be approximately ~~91~~ 124 feet from the closest private residence structure (~~12917 Galewood~~ 3901 N. Van Noord); the property line for this residence would be ~~43~~ 16 feet from construction activities.

Vehicular Access

Vehicular access to the Harvard-Westlake Campus is presently provided via three driveways located on the east side Coldwater Canyon Avenue:

- *North Entrance Driveway*: The north entrance driveway is located on the east side of Coldwater Canyon Avenue at the northwest corner of the Harvard-Westlake Campus. The north entrance

5 The residence owned by Harvard-Westlake (at the end of Potosi Avenue ~~Drive~~) overlooks the Project Site.

driveway presently accommodates a majority of student pick-ups/drop-offs as well as access to faculty parking. The north entrance driveway currently provides full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

- *Main Entrance Driveway*: The main entrance driveway is located on the east side of Coldwater Canyon Avenue and is controlled by a traffic signal. The main entrance driveway presently accommodates both staff and student vehicles. The main entrance driveway currently provides full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

- *Hacienda Drive Driveway*: The Hacienda Drive driveway is located on the east side of Coldwater Canyon Avenue at Hacienda Drive at the south end of the Harvard-Westlake Campus. The Hacienda Drive driveway presently accommodates student vehicles and provides access to the Harvard-Westlake Campus. In addition, the Hacienda Drive driveway provides access to the parking lot immediately south of Hacienda Drive and north of St. Michael's ~~and All Angels Episcopal~~ Church (Southern Parking Lot), which currently serves as student parking during school hours. The Hacienda Drive driveway currently provides full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

Vehicular access to the Campus would continue to be provided via these same three access driveways off of Coldwater Canyon Avenue. Locating the Parking Structure on the Development Site would allow pick-ups and drop-offs for both vehicles and school buses to be relocated from Coldwater Canyon Avenue to within the Harvard-Westlake Campus. No student drop-off or pick-up would be allowed within the Parking Structure. As described previously, the main entrance driveway would be relocated 37 feet further to the south as a result of the location of the proposed pedestrian bridge landing. The main entrance driveway would include one ingress lane and two egress lanes. One egress lane would allow for cars to make a left turn only onto Coldwater Canyon Avenue, while the other egress lane would allow cars to make either a right turn onto the street or to continue straight into the Parking Structure across Coldwater Canyon Avenue. Secondary driveways would continue to be provided along the northern side of the Campus and along the southern side of the Campus (Hacienda Drive). Hacienda Drive, east of Coldwater Canyon Avenue, is a previously vacated, private street that also provides access to the adjacent single-family homes located east of the campus.

Vehicular access to the Development Site is presently provided via two partially-paved driveways on the west side of Coldwater Canyon Avenue, south of the existing Harvard-Westlake Campus main entrance driveway and north of Hacienda Drive.

Vehicular access to the Proposed Project would be provided via two driveways located along the west side of Coldwater Canyon Avenue:

- *Northerly Project Driveway*: The northerly Project driveway would be located on the west side of Coldwater Canyon Avenue at the northeast corner of the proposed Development Site. The northerly Project driveway would be located directly across from the Harvard-Westlake Campus main entrance driveway following the relocation of the existing traffic signal. The northerly Project driveway would provide primary access into the proposed Parking Structure and would accommodate full vehicular access in three lanes – one ingress-only lane and two egress-only lanes to allow for either a right turn ~~or left turn~~ onto Coldwater Canyon Avenue ~~(i.e., left-turn and right-turn ingress and egress movements).~~ or through crossing lane across Coldwater Canyon Avenue onto the Harvard-Westlake Campus. The northerly Project driveway would also provide for a left-turn onto Coldwater Canyon Avenue.

- *Southerly Project Driveway*: The southerly Project driveway would be located on the west side of Coldwater Canyon Avenue at the southeast corner of the proposed Development Site. The southerly Project driveway would provide secondary access to the proposed Parking Structure and would accommodate limited vehicular access (i.e., right-turn ingress and right-turn egress movements, with left-turn egress permitted outside of the weekday period 7:00 a.m. – ~~6:00~~ 7:00 p.m.).

No access to the Parking Structure or Development Site would be provided from Galewood Street, Blairwood Drive, Potosi Avenue, or any other street except Coldwater Canyon Avenue. Further discussion of the proposed Development Site access and circulation is provided in the Transportation and Parking Section of Chapter 3.

Fire Protection

Construction materials would be non-combustible and the structure would be fully sprinklered. The Parking Structure would be open and a minimum ~~5~~ 20-foot wide airway on the south side and minimum 5-foot airway on the west and north sides would be provided ~~on three sides around the parking structure~~ at-grade between the perimeter of the ~~building~~ Parking Structure and the retaining walls. Fire Department access to the Parking Structure would be provided along the east side from Coldwater Canyon Avenue to openings on all parking levels for the full length of the Parking Structure. ~~(~~Fire Department access would be possible from grade; access would also be possible from the open stairways and the Fire Department access stair located inside the Parking Structure. Specific emergency fire access openings throughout the perimeter security grillwork would be designed and coordinated with the Fire Department. Fire truck and equipment access would be from the street.~~)~~ While the ~~athletic~~ practice field would include a catchment fence around the perimeter and on top of the field, it would be accessible to the Fire Department along the entire length~~ and would be open to the sky~~. A service access ramp for ~~Fire Department~~ service and emergency access to the ~~athletic~~ practice field level would be provided at the southern end of the Development Site. The Parking Structure will include an open stairway (requested by the Fire Department) servicing all levels with an additional fire standpipe.

Pedestrian Access

As part of the Proposed Project, a ~~new~~ pedestrian bridge is proposed to cross Coldwater Canyon Avenue, connecting the proposed Parking Structure to the Harvard-Westlake Campus. Pedestrians would be able to access the Campus from the Parking Structure, and vice versa, only via the proposed pedestrian bridge crossing Coldwater Canyon Avenue.

Parking

578 parking spaces are currently required for the Harvard-Westlake ~~School~~ Campus.[6] In addition, approximately ~~121~~ 104 spaces are used off-site.[7] As part of the Proposed Project, approximately 243 parking spaces would be removed from the Campus[8] (in addition, the approximately ~~121~~ 104 off-site

[6] Per City of Los Angeles, Certificate of Occupancy for Building Permits 11010-20000-01949 and 11010-20001-01949.

[7] This includes approximately 36 parking spaces on Coldwater Canyon Avenue (that were not used during the recent LADWP water line construction activities), approximately 40 parking spaces in the St. Michael's Church parking lot, and approximately ~~45~~ 28 parking spaces in the surrounding neighborhood (Linscott, Law & Greenspan Traffic and Parking Impact Analysis, see Appendix G).

[8] This includes approximately 140 spaces from surface parking lots near the Main Entrance and along the Main Entrance Driveway as a result of reconfiguration of the Main Entrance Driveway, and approximately 103 spaces from the Southern Parking Lot.

spaces that are currently used by the School would no longer be used on a regular basis). The construction of the Proposed Parking Structure would add 750 parking spaces. Thus, following the construction of the Proposed Project, 1,085 parking spaces would be provided on the Harvard-Westlake Campus for regular use and 1,188 would be available for special events (with use of the 103 spaces in the Southern Parking Lot), as shown in **Table 2-2**.

Following completion of the Project, the Southern Parking Lot (103 spaces) would be primarily used for bus circulation, staging, and parking, but would continue to be striped for parking and available for occasional special events, such as graduation and homecoming. The Ted Slavin football field is not now nor will be in the future used for overflow parking, as the surface of the field and underlying substructure are not suitable for parking cars.

TABLE 2-2: PROJECT PARKING

Parking Location	Existing Parking Supply	Regular School Days Proposed Parking Supply	Regular School Days Change	School Events Proposed Parking Supply	School Events Change
On-Campus	578	335	-243	438	-140
Parking Structure	0	750	+750	750	+750
Total	578	1,085	+507	1,188	+610

The Project parking, as shown in **Table 2-2**, includes only those spaces that will be provided on-Campus and in the Parking Structure. **Table 2-2** does not factor in or take credit for the removal of off-site parking spaces.

As part of the parking supply, the Project must provide a minimum of 15 handicap accessible spaces to comply with the Americans with Disabilities Act requirements. A minimum of two percent (2%) of the total number of spaces within the Parking Structure are required to be provided as handicap spaces, with one in every eight handicap spaces being van accessible.

As documented in Section 3.8 Transportation, Circulation and Parking, the existing supply of parking is insufficient to accommodate existing parking demand during regular school days, as well as in conjunction with school-related activities that occur outside regular school hours such as football games. School-related vehicles regularly park on street along Coldwater Canyon Avenue, as well as in the residential neighborhood north of the Harvard-Westlake Campus and east of Coldwater Canyon Avenue.

The Proposed Project is intended to eliminate the use of local streets by students and visitors for parking for all but the biggest special events (such as graduation).

A more-detailed discussion of parking demand and LAMC Zoning Code requirements is provided in the Section ~~3.5~~ 3.8 Transportation, Circulation and Parking.

CONSTRUCTION ACTIVITIES

Construction is estimated to last approximately ~~24~~ 30 months, which includes ~~nine months of excavation, and 15~~ approximately nine months of grading, and 21 months of construction. ~~Excavation would occur on the Development Site over approximately 9 months. Final grading~~ The foundations and structure construction would extend over ~~a two-year period~~ approximately 13 months. It is estimated that the excavation would require the removal of approximately ~~135,000~~ 137,000 cubic yards of soil from the site [to be conservative 140,000 cubic yards is analyzed in the RDEIR]. This grading quantity includes approximately 3,000 cubic yards of excavation for the necessary field access service ramp, driveways and other site improvements, approximately 10,000 cubic yards of excavation per the ~~Soils Report~~ Final Geologic Soils and Engineering Report (5-foot lateral extension, 8-feet deep) for a foundation and approximately ~~113,000~~ 122,000 cubic yards of excavation would be required for the Parking Structure. In addition, approximately ~~9,000~~ 2,000 cubic yards of excavation within the area to be dedicated to the City is required to accommodate the required roadway widening along Coldwater Canyon Avenue. Equipment and worker staging would occur on the ~~Development~~ Project Site.

In addition to grading and construction activities, the Proposed Project would include soil nailing to ~~stabilize the slope at the Development Site~~ create the necessary retaining walls. The soil nailing technique involves the insertion of relatively slender reinforcing elements into the slope and it generates a noise level similar to an auger drill, which is less than a grader or tractor (see Section 3.7 Noise).

Trucks with a capacity of 20 cubic yards of material per truck would be used to carry the soil. This RDEIR assumes that each truck would carry 14 cubic yards of material due to soil packing inefficiencies. ~~Construction, including~~ Truck activities would occur Monday through Saturday ~~Friday~~ from ~~7~~ 8:00AM to ~~5~~ 4:00 PM ~~and Saturdays from 8:00 AM to 4:00 PM~~ (approximately 25 days per month). During the peak period of grading and export activities, up to ~~100~~ 160 truck trips per day (i.e., ~~50~~ 80 inbound trips and ~~50~~ 80 outbound trips) are anticipated. Staging of all construction equipment and material would occur on the ~~Development~~ Project Site. During excavation/grading parking for approximately ~~up to 20~~ 33 construction workers would occur on the ~~Development~~ Project Site.

During excavation, haul trucks are anticipated to be stationed on the Development Site (up to 6 trucks) and the Southern Parking Lot (up to 6 trucks). Construction workers parking would also be located on the Development Site and Southern Parking Lot. Up to 6 additional trucks could stage at a designated location off-site to be called upon by the on-site dispatcher. During construction of the structure, up to ~~45~~ 33 construction workers would park on the Southern Parking Lot on-campus.

During excavation and construction, the Harvard-Westlake School would replace the 103 spaces in the Southern Parking Lot that would be lost to staging and construction worker parking with valet parking on-Campus as needed.

Trucks would proceed to the Development Site, heading southbound on Coldwater Canyon. Loaded haul trucks would exit the site onto Coldwater Canyon Avenue, proceed northbound to the US-101 East (Ventura) Freeway, merge onto the US-101 South, then proceed to the CA-134 eastbound and then to I-210 eastbound then turning southbound on I-605 to Lower Azusa Road in Arcadia, leading to the landfill site which is approximately 35 miles from the Development Site.

SCHEDULE

It is anticipated that the start of construction would be in ~~2014~~ 2016 with completion of the Project and full operation in ~~2016.~~ 2019.

DISCRETIONARY ACTIONS

This RDEIR is intended to inform decision-makers and the public of the environmental effects of implementing the Proposed Project and of the mitigation measures or available alternatives that could reduce or avoid significant impacts. This RDEIR analyzes and documents the impacts of the Proposed Project and all discretionary and ministerial actions associated with the Project. The City, as Lead Agency, would use this RDEIR in assessing the effects of the City actions detailed below. The discretionary approvals required to implement the Proposed Project include the following:

1. Vesting Conditional Use, pursuant to LAMC Section 12.24-T.3(b), to permit the construction of a three-story parking structure with 750 parking spaces and a rooftop ~~athletic~~ practice field with a protective fence, netting and lighting, in the RE40-1-H and ~~RE15-1-H~~ R1-1 Zones, as accessory uses to the Harvard-Westlake Campus. As part of the Conditional Use, minor revisions to the Site Plan for the Harvard-Westlake Campus are also requested to allow for a pedestrian bridge and bridge landing on the east side of Coldwater Canyon Avenue, the relocation of the Harvard-Westlake Campus' main driveway approximately 37 feet to the south off of Coldwater Canyon Avenue, minor alterations to the parking lot south of the main driveway (the Senior Parking Lot), and landscaping in the Senior Parking Lot.

   A. Proposed Parking Structure: Pursuant to LAMC Section 12.24-F., height and area regulations (in conjunction with the requested Conditional Use for the Parking Structure):

      i. Encroachments into portions of the front yard setback area (along Coldwater Canyon Avenue), to allow for the following setbacks, in lieu of the 25-foot front setback otherwise required by LAMC Section 12.21 C.10-1:

         a. A 20-foot front yard setback for the Parking Structure wall, a 13' 3" front yard setback for the ~~athletic~~ practice field, and an 11' 1" front yard setback for the fence support poles,

         b. A 15-foot front yard setback for the proposed retaining wall,

         c. A zero-foot front yard for the pedestrian bridge and ancillary bridge structures, and

         d. A zero-foot front yard for the service access ramp needed for Fire Department access from Coldwater Canyon Avenue.

      ii. Encroachments into the southerly and southwesterly side yard setback areas, to allow for the following setbacks, in lieu of the 17-foot side yard setback otherwise required by LAMC Section 12.21 C.10-1:

         a. A zero-foot southerly side yard setback to accommodate a service access ramp needed for Fire Department access from Coldwater Canyon Avenue, and

         b. Zero-foot southerly and southwesterly side yard setbacks for a portion of the Parking Structure and retaining wall.

      iii. The following maximum heights for the Parking Structure and ancillary structures located on portions of the Development Site, in lieu of the 30-foot height limit otherwise required by LAMC Section 12.21 C.10-4:

a. Approximately 41 feet 3 inches to the top of the pedestrian bridge,

b. Approximately 64 feet 11 inches to the top of the elevator tower on the west side of the pedestrian bridge (the West Landing),

c. Approximately 44 feet 6 inches to the top slab of the Parking Structure,

d. Approximately 56 feet 6 inches to the top of the rooftop equipment room/offices on the Parking Structure,

e. Approximately 76 feet 6 inches to the top of the catchment fence on the rooftop of the Parking Structure,

f. Approximately 83 feet 6 inches to the top of the field lights secured above the catchment fence, and

g. Approximately ~~87~~ 90 feet 5 inches (maximum height of the tallest wall) for retaining walls including 3 feet of fencing atop the wall.

iv. A maximum grading quantity of approximately ~~3,000~~ 2,500 cubic yards in a Hillside Area on a lot in the ~~RE15~~ RE40-1-H Zone, in lieu of the 1,600 cubic yard maximum grading limit otherwise required by LAMC Section 12.21 C.10(f)(1), (or such amount as may be increased pursuant to LAMC Sections12.21 C.10(f)(3) and (4). (The Project would involve grading of a total of ~~135,000~~ 137,000 cubic yards [to be conservative 140,000 cubic yards is analyzed in the EIR], although ~~132,000~~ 134,500 cubic yards is exempt from the grading and export limits pursuant to the Baseline Hillside Ordinance (LAMC Section 12.21 C.10(f)(3)), as it is underneath the footprint of structures, is required for driveways and Fire Department access, and is required to accommodate the required widening of Coldwater Canyon Avenue.)

v. A maximum quantity of earth export of approximately ~~3,000~~ 2,500 cubic yards in a Hillside Area, in lieu of the 1,000 cubic yard export limit otherwise required by LAMC Section 12.21 C.10(f)(2)(i), or such amount as may be increased pursuant to LAMC Sections12.21 C.10(f)(3) and (4). (The Project would involve export of a total of ~~135,000~~ 137,000 cubic yards [to be conservative 140,000 cubic yards is analyzed in the RDEIR], although ~~132,000~~ 134,500 cubic yards is exempt from the export limits pursuant to the Baseline Hillside Ordinance (LAMC Section 12.21 C.10(f)(3)), as it is underneath the footprint of structures, is required for driveways and Fire Department access, and is required to accommodate the required widening of Coldwater Canyon Avenue.)

vi. A maximum residential floor area of approximately 79,261 square feet in a Hillside Area, in lieu of the maximum residential floor area limits otherwise required by the Baseline Hillside Ordinance (LAMC Section 12.21 C.10(b). The Project would provide the following square footages allocated among the two zoning designations that comprise the Development Site: a) 18,788.15 square feet (R1-1); and b) 60,472.96 (RE40-1-H).

B. Main Portion of Campus: Pursuant to LAMC Section 12.24.F., related to height and area regulations (in conjunction with the requested Conditional Use Permit):

i. To allow for the bridge and bridge landing (the East Landing) to observe a zero-foot front yard setback into portions of the front yard setback area (along Coldwater Canyon Avenue), in lieu of the 25-foot front setback otherwise required by LAMC Section 12.21 C.10-1, and

ii. To allow for the a maximum height of approximately 45 feet 7 inches at the top of the East Landing;

2. Waiver of the Tentative Map Requirement under LAMC Section 91.7006.8.2, pursuant to the Department of City Planning's, Filing Procedures for Review of Grading Plans in Hillside Areas Having an Area In Excess of 60,000 square feet, dated January 11, 2012.

In addition to the Planning approvals identified above, the following approvals have been requested from other City agencies:

1. A Revocable Permit from the City of Los Angeles Board of Public Works to allow for a pedestrian bridge to cross Coldwater Canyon Avenue and be located within the front yard setback area along Coldwater Canyon Avenue.

2. An Airspace Vacation from the City of Los Angeles to allow for a pedestrian bridge to cross Coldwater Canyon Avenue and be located within the front yard setback area along Coldwater Canyon Avenue.

3. Approval from the City of Los Angeles to allow for the vacation of paper street Hacienda Drive.

4. Approval from the City of Los Angeles Cultural Affairs Commission for the design of the pedestrian bridge.

5. Approvals and permits from the City ~~of Los Angeles~~ for Project construction activities including, but not limited to the following: demolition, removal of protected trees, haul route, excavation, shoring, grading, foundation, and building and interior improvements.

CUMULATIVE DEVELOPMENT

Cumulative impacts refer to the combined effect of project impacts with the impacts of other past, present and reasonably foreseeable future projects. Both CEQA and CEQA Guidelines require that cumulative impacts be analyzed in an RDEIR. As set forth in the CEQA Guidelines Section 15130(b), "the discussion of cumulative impacts shall reflect the severity of the impacts, and their likelihood of occurrence, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone."

According to Section 15355 of the CEQA Guidelines:

> "Cumulative impacts" refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.
>
> a) The individual effects may be changes resulting from a single project or a number of separate projects.
>
> b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts

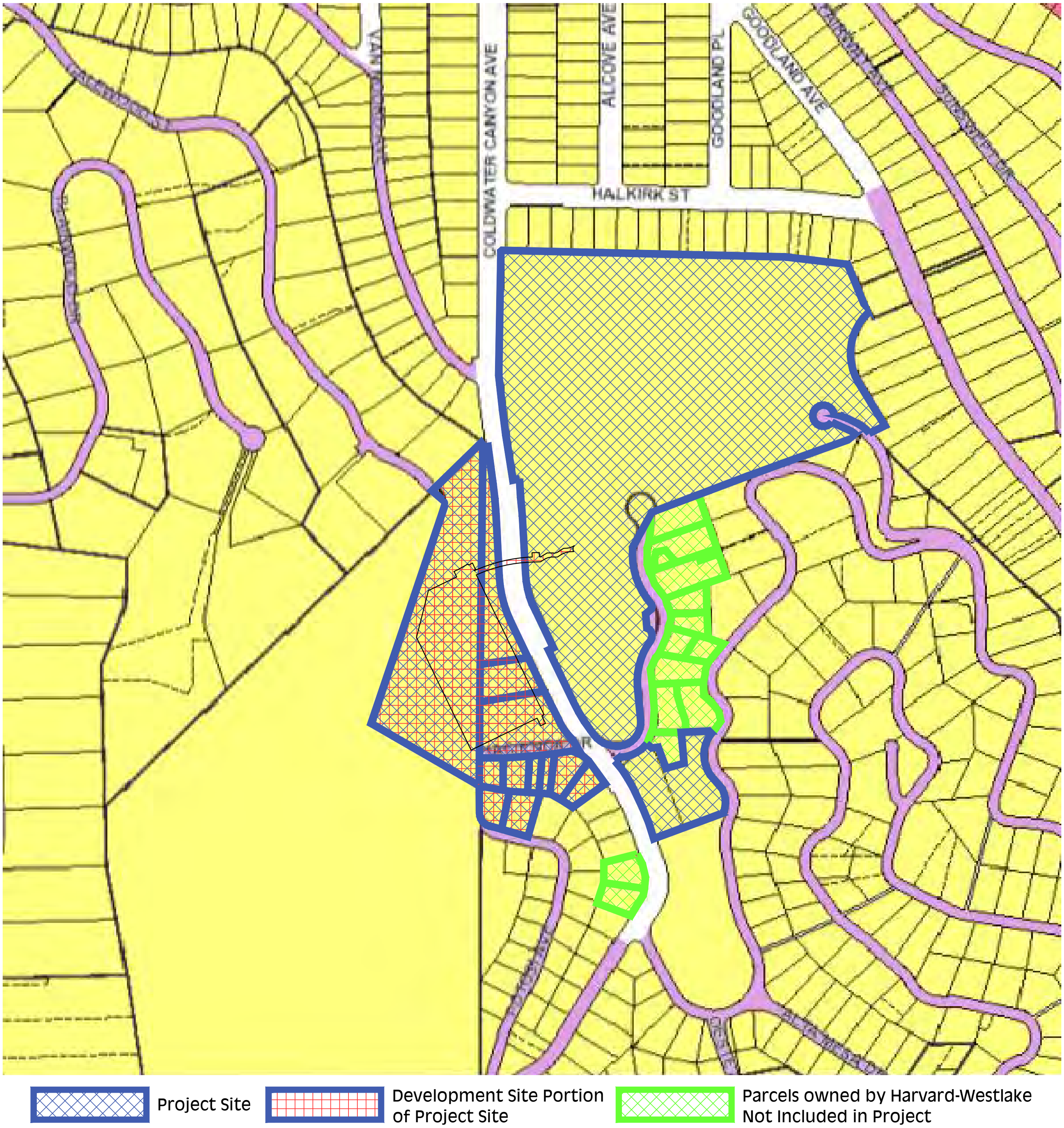
> can result from individually minor but collectively significant projects taking place over a period of time."

Therefore, the cumulative discussion in this ~~EIR~~ RDEIR focuses on whether the impacts of the Proposed Project are cumulatively considerable within the context of impacts caused by other past, present, or future projects. Cumulative impacts are discussed within each issue area. CEQA Guidelines ~~[~~Section 15130(d)~~]~~ allow for two methods for reviewing cumulative development:

- A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

- A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or greenhouse gas reduction plan. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

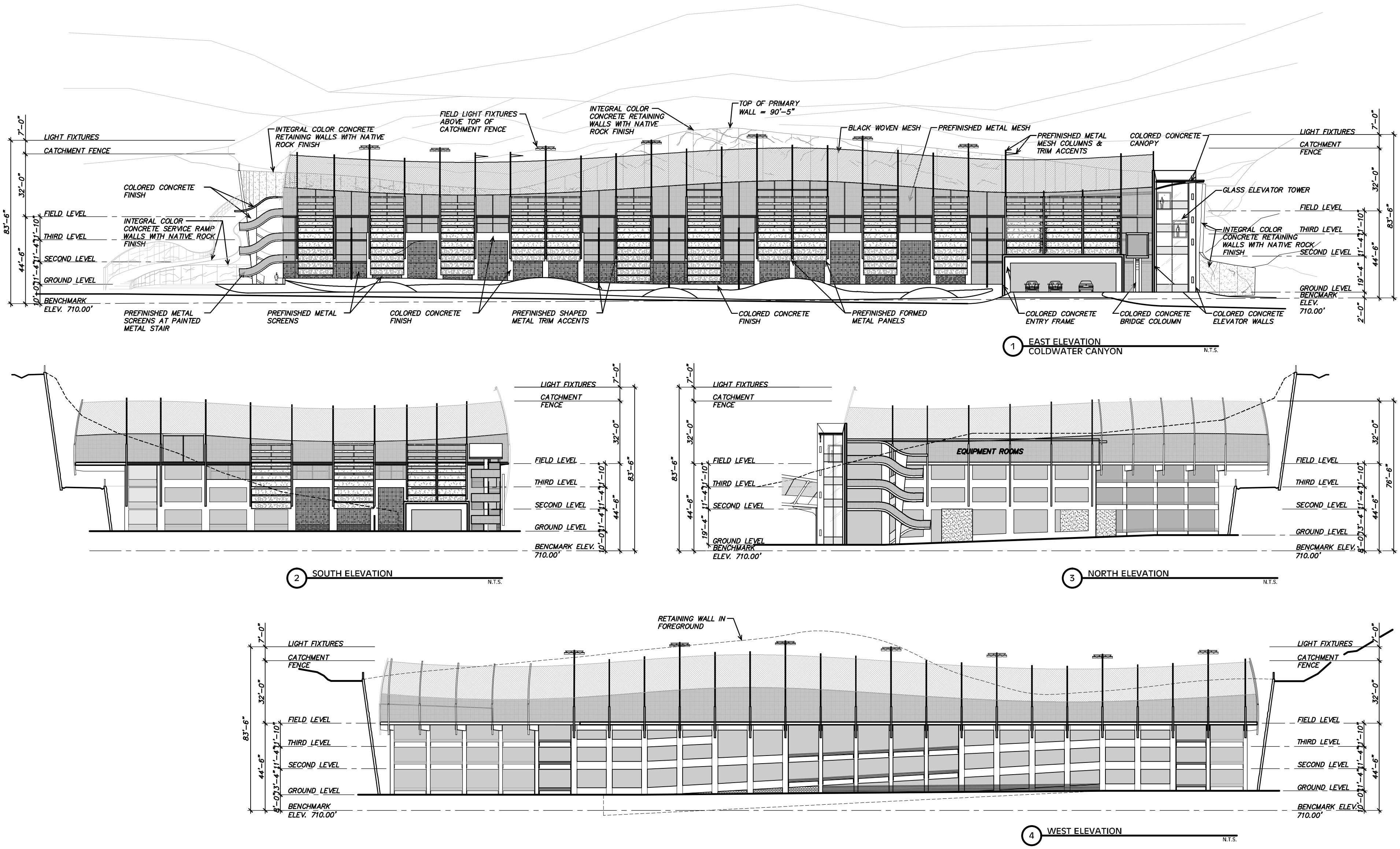
For purposes of the traffic analysis a list of related projects in the area was compiled (see **Table 3.8-8** and **Figure 3.8-2** in Section ~~3.7~~3.8 Transportation, Circulation and Parking); in addition, anticipated growth rates for the area were included in the analysis. Other issue areas consider cumulative impacts at a scale proportionate to the area over which impacts could occur. Many impacts are localized and any cumulative effects would occur only with construction in the immediate vicinity. LADWP ~~is currently constructing~~ has completed construction of a water trunk line along Coldwater Canyon Avenue in front of the Project Site. The Harvard-Westlake School ~~has~~ had indicated that construction of the Project would not begin until construction of the trunk line in the vicinity of the site (where cumulative impacts could occur) ~~has~~ had been completed.



SOURCE: IDG Parkitects, Inc.

Figure 2-3

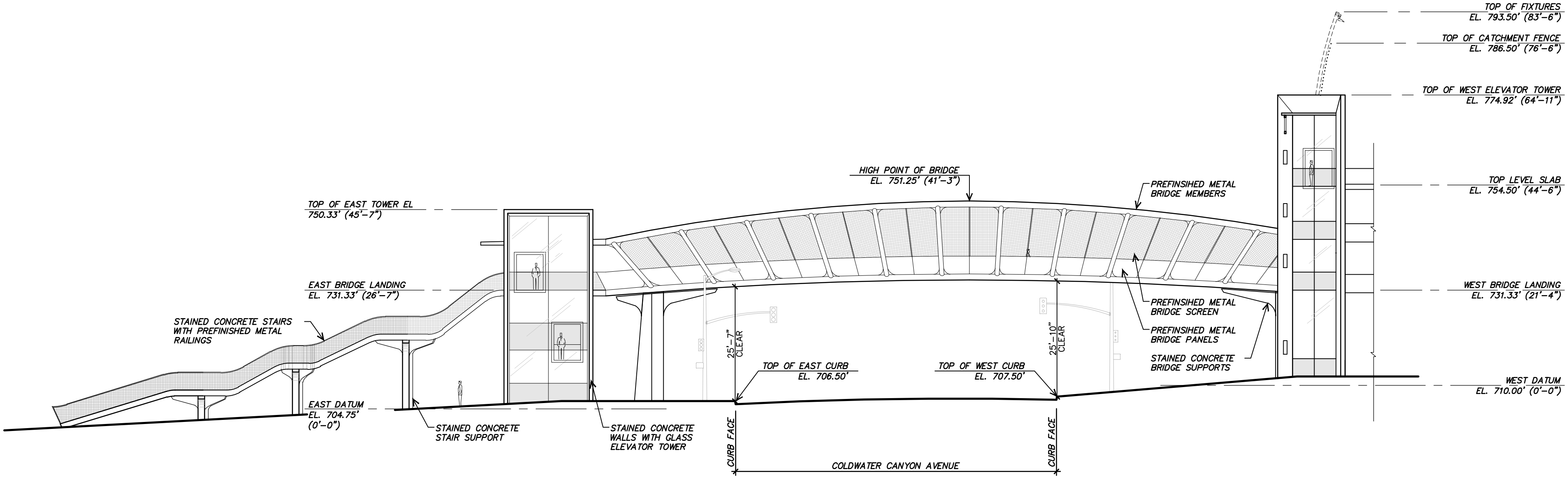
Project Site and Other Properties Owned by Harvard-Westlake



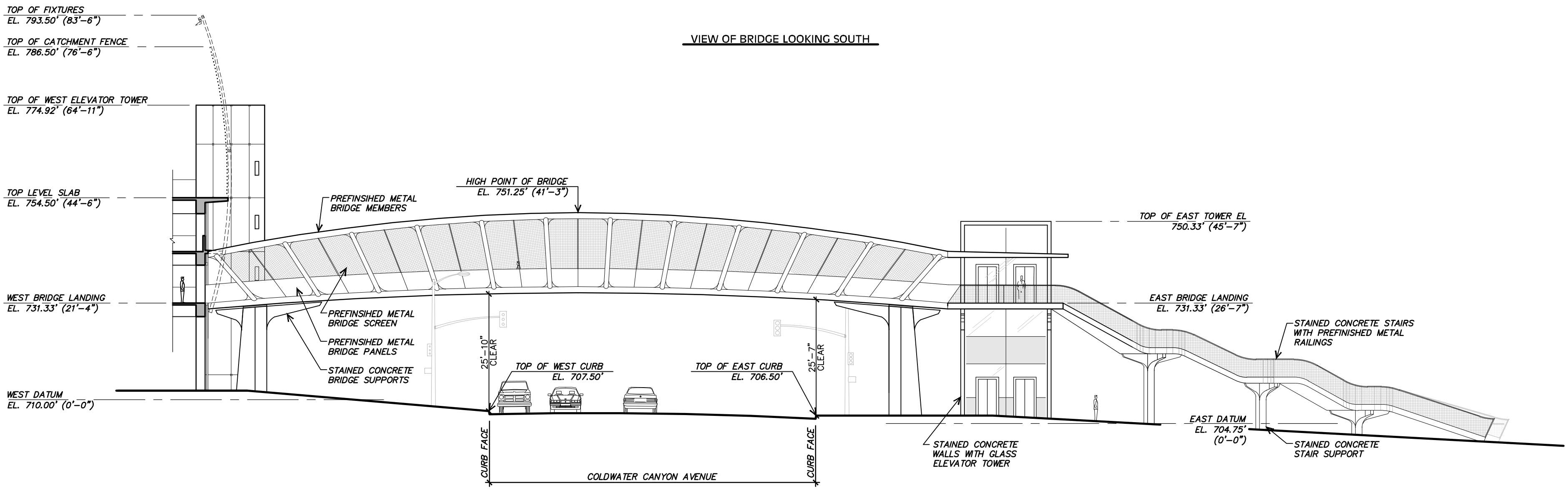
SOURCE: IDG Parkitects, Inc.

Figure 2-4

Parking Structure Elevations



VIEW OF BRIDGE LOOKING SOUTH

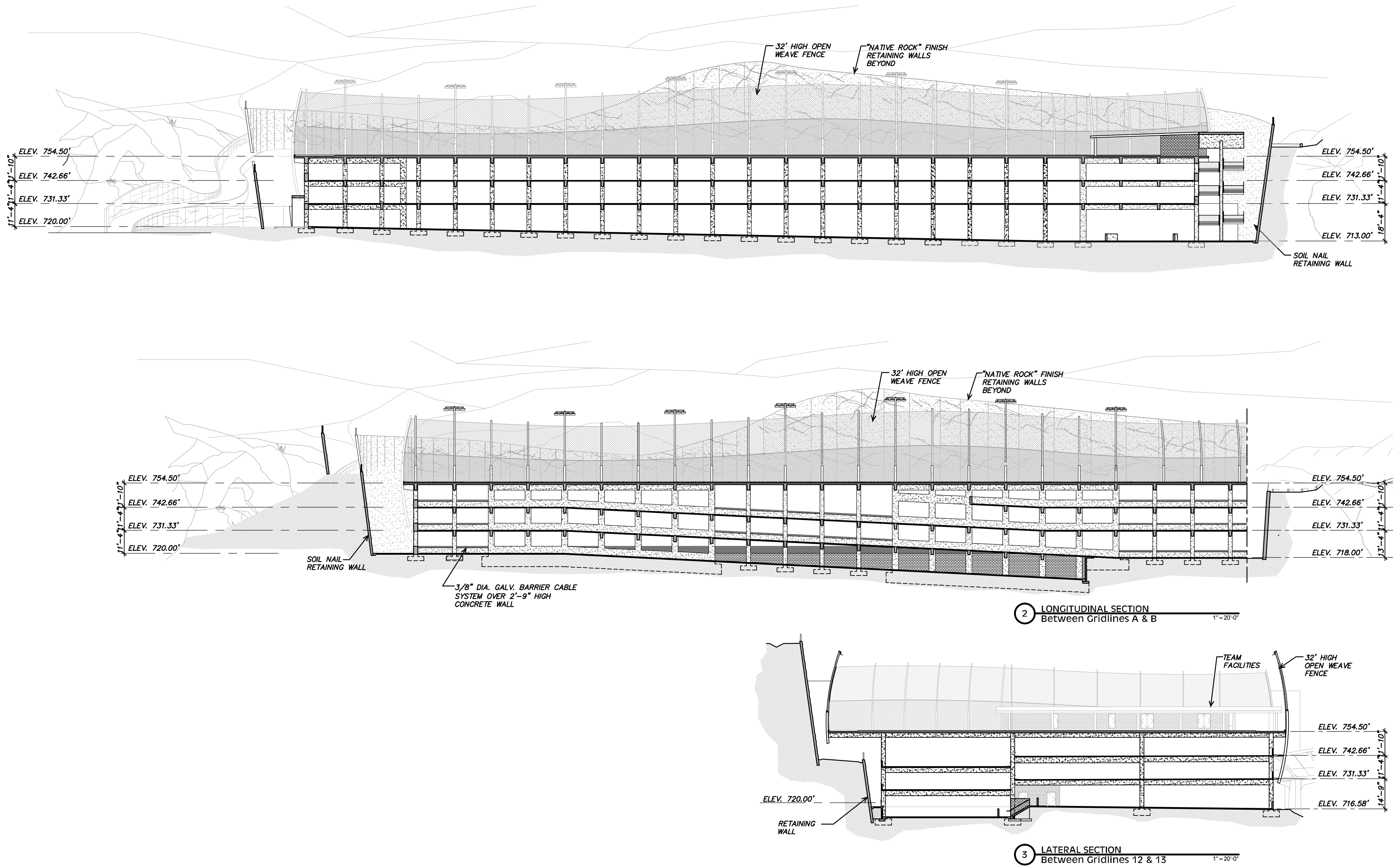


VIEW OF BRIDGE LOOKING NORTH

SOURCE: IDG Parkitects, Inc.

Figure 2-5

Bridge Elevations

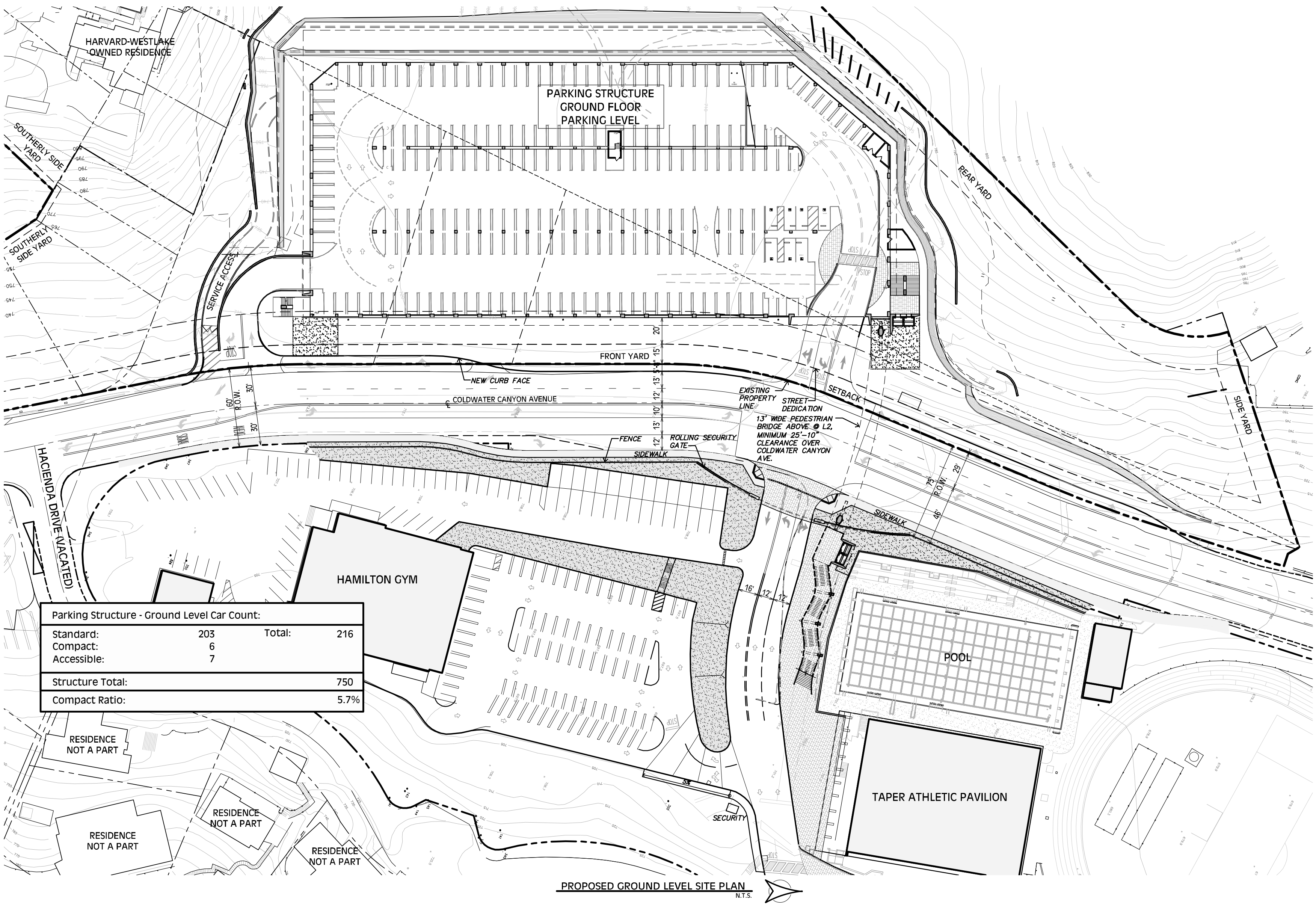


SOURCE: IDG Parkitects, Inc.

Harvard-Westlake Parking Structure ■

Figure 2-6

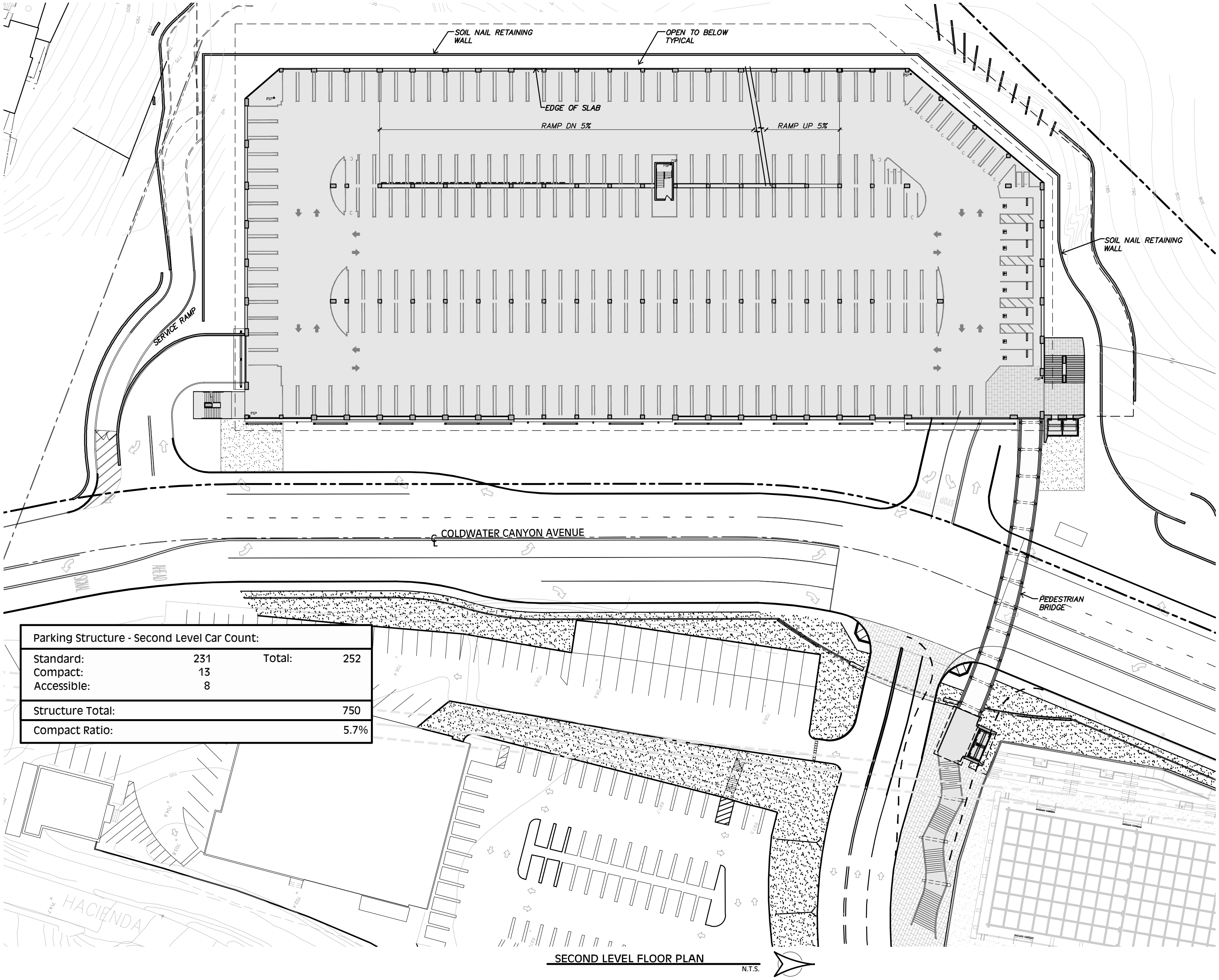
Parking Structure Sections



SOURCE: IDG Parkitects, Inc.

Figure 2-7

Ground Level Site Plan

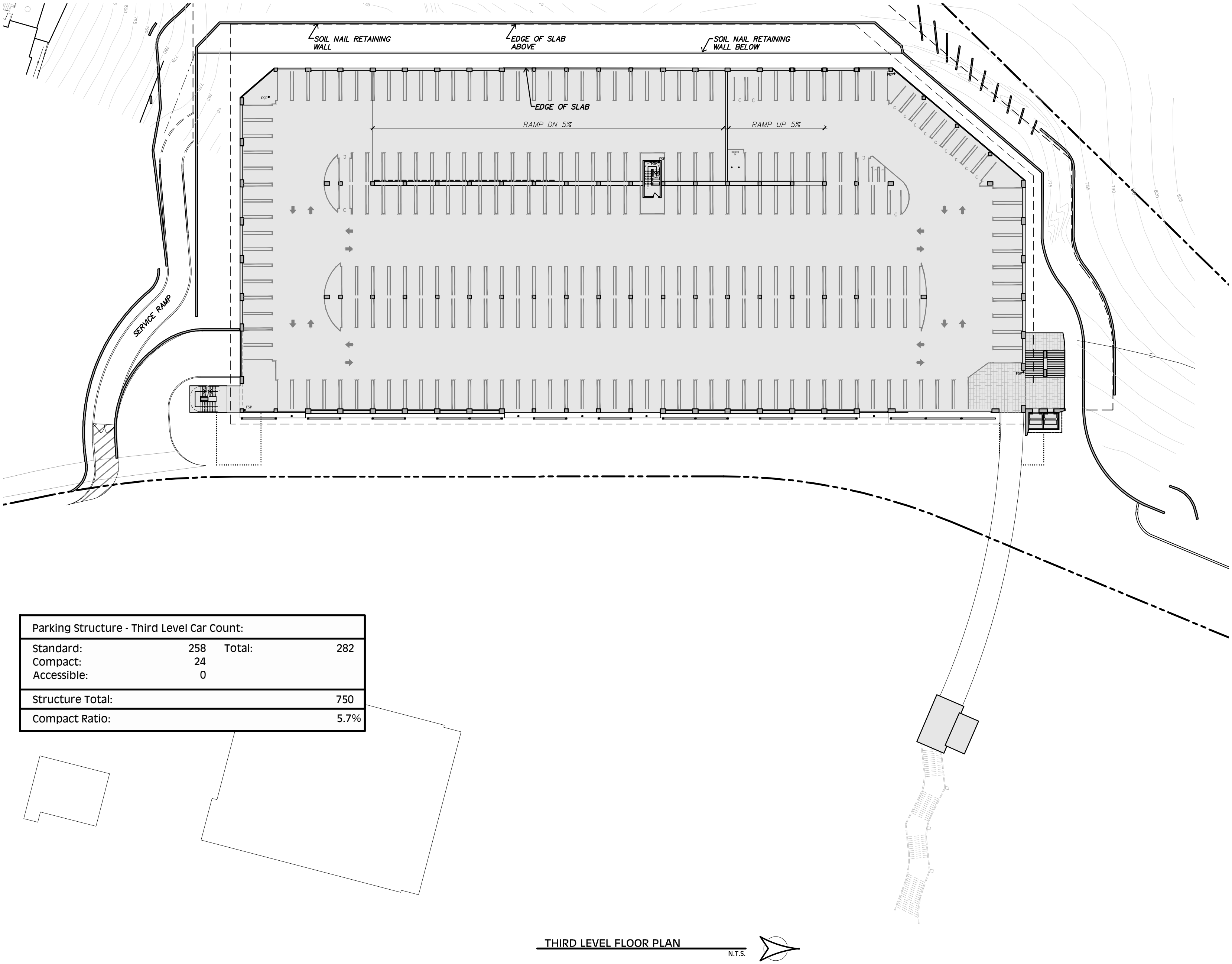


SOURCE: IDG Parkitects, Inc.

Harvard-Westlake Parking Structure ■

Figure 2-8

Second Level Floor Plan

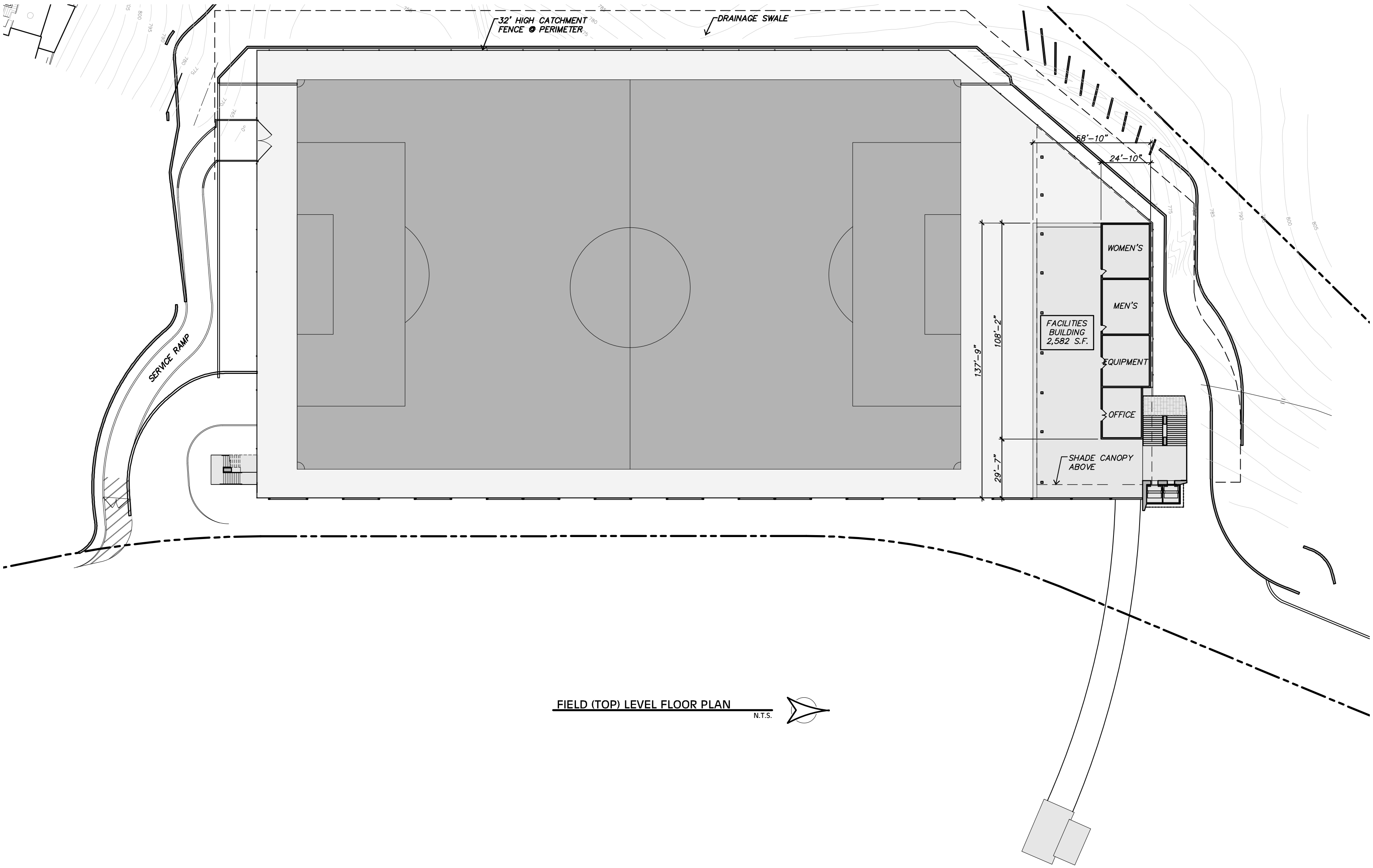


Parking Structure - Third Level Car Count:			
Standard:	258	Total:	282
Compact:	24		
Accessible:	0		
Structure Total:			750
Compact Ratio:			5.7%

SOURCE: IDG Parkitects, Inc.

Figure 2-9

Third Level Floor Plan



SOURCE: IDG Parkitects, Inc.

Figure 2-10

Practice Field Layout (Rooftop)

SOURCE: IDG Parkitects, Inc.

Figure 2-11

Rendering of Parking Structure and Pedestrian Bridge Looking South (Aerial View) Along Coldwater Canyon Avenue

SOURCE: IDG Parkitects, Inc.

Figure 2-12

Rendering of Pedestrian Bridge, Parking Structure and Reconfigured Main Campus Entry Looking North Along Coldwater Canyon Avenue

SOURCE: IDG Parkitects, Inc.

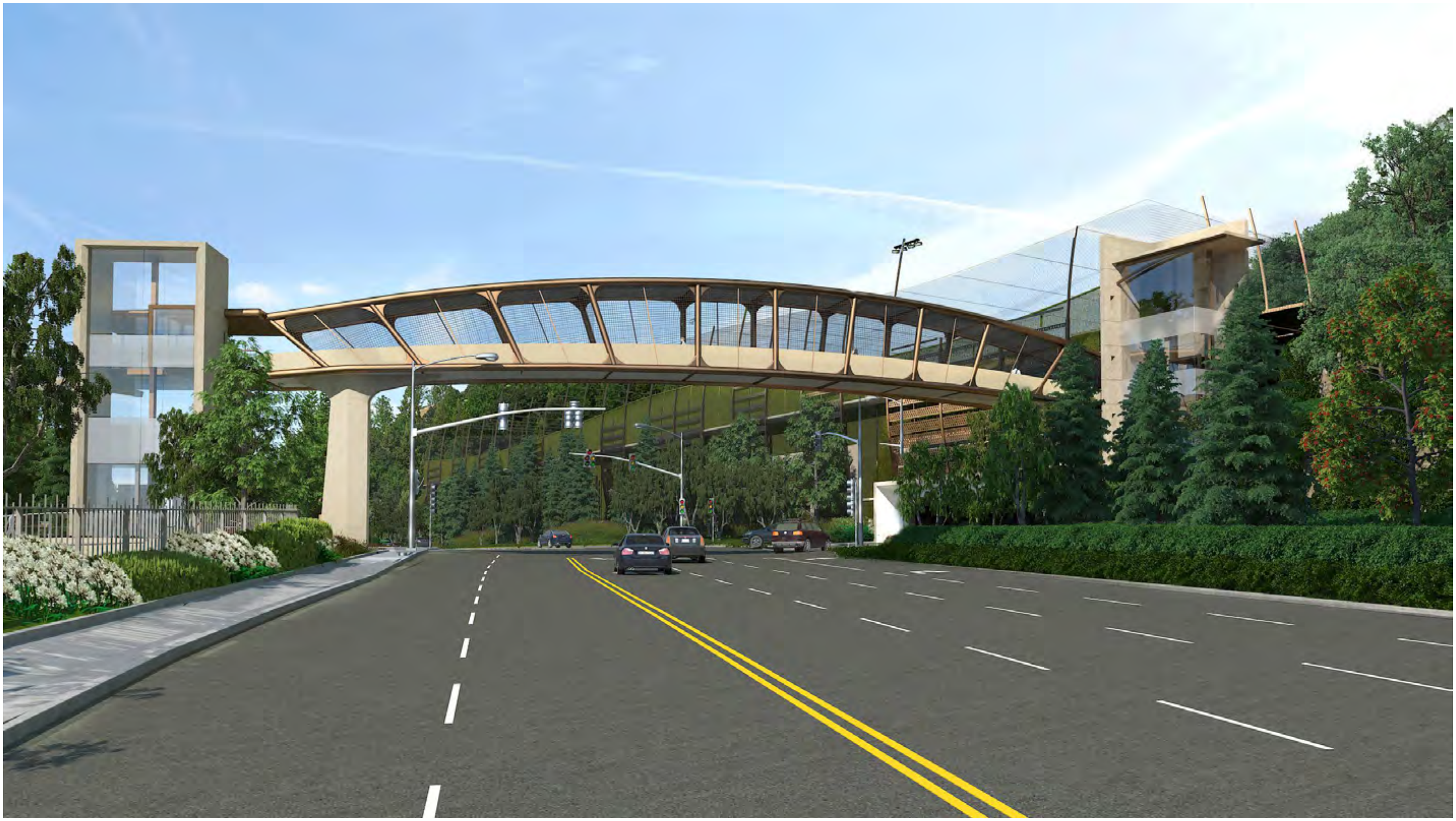
Figure 2-13

Rendering of Parking Structure and Pedestrian Bridge Looking Northwest

SOURCE: IDG Parkitects, Inc.

Figure 2-14

Rendering of Parking Structure and Pedestrian Bridge Looking Southwest



SOURCE: IDG Parkitects, Inc.

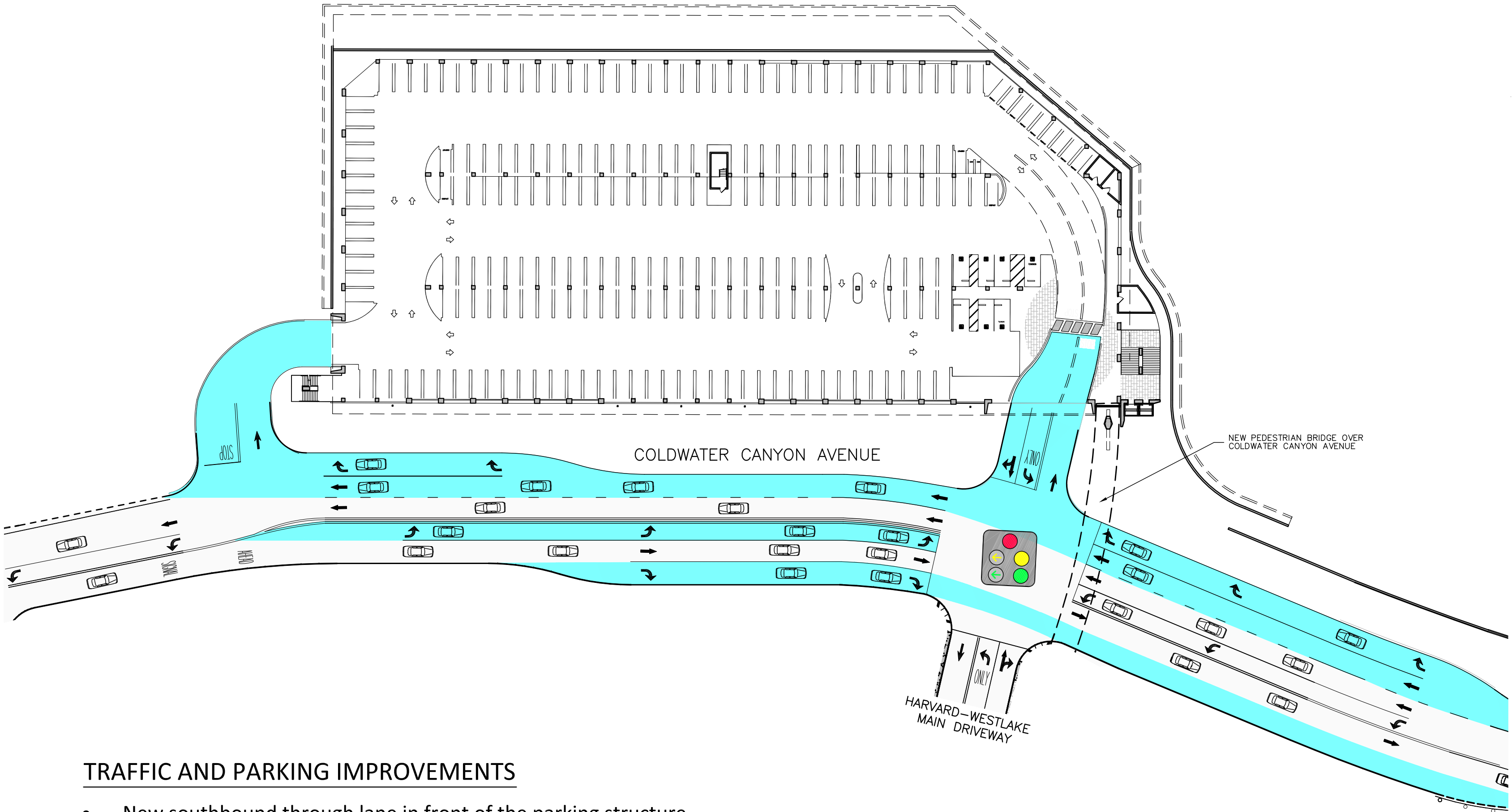
Figure 2-15

Rendering of Parking Structure -- Street Level View Looking South

SOURCE: IDG Parkitects, Inc.

Figure 2-16

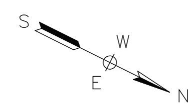
Rendering of Parking Structure and Bridge as Viewed from Adjacent to St. Michael's Church Garden



TRAFFIC AND PARKING IMPROVEMENTS

- New southbound through lane in front of the parking structure.
- New dedicated southbound right-turn lanes into the parking structure entrances.
- New dedicated northbound left-turn lane into the north parking structure entrance.
- Harvard-Westlake related on-street parking moved to the new parking structure.
- On-street bus loading/unloading moved on-site.
- Existing traffic signal at main entrance upgraded with new "smart" signal and left-turn arrows.

LEGEND
EXISTING TRAFFIC LANES
NEW TRAFFIC LANES



SOURCE: Linscott, Law, & Greenspan, 2012

Figure 2-17

Traffic and Parking Improvements

3.0 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

An Initial Study was conducted for the Proposed Project ~~and determined~~ and a Draft EIR was completed that addressed the following issues ~~have the potential to be significantly impacted by the Project~~:

Aesthetics
Air Quality and Greenhouse Gas
Biological Resources
Cultural Resources (Archaeology, Paleontology and Human Remains)
Geology, Soils and Hydrology (including Storm Water Drainage)
Land Use
Noise
Transportation, Circulation and Parking

Other issues are addressed in the Initial Study that is included in **Appendix B ~~A~~**.

The Proposed Project includes features that reduce environmental impacts and is required to comply with applicable regulations as well as City of Los Angeles standard conditions that would reduce impacts.

The following discussion includes an analysis of the Proposed Project impact on the environment in compliance with Section 15126 of the CEQA Guidelines. The discussion of each impact includes the following subsections:

- Existing Conditions
- Regulatory Context (as applicable to each issue)
- Impacts
- Cumulative Impacts

Measures that would reduce Project impacts are identified under the following headings:

- Regulatory Compliance Measures (regulatory requirements that reduce impacts; in some cases additional detail beyond what is specified in a regulation is provided in order to indicate how such requirements are to be met);
- Project Design Features (components of the project that would reduce impacts);
- Mitigation Measures (as applicable and appropriate this EIR identifies feasible mitigation measures to reduce significant and potentially significant impacts)
- Significance After Mitigation

As noted above in the Introduction, the RDEIR identifies new text as underlined and deleted text as strike through (changes in capitalization and correction of typographical-type errors are not always identified). The EIR has been clarified so that references to Project Site address the entire Campus including where the Parking Structure is proposed to be constructed and references to the Development Site address specifically the portion of the Project Site where the Parking Structure is proposed.

3.1 AESTHETICS

The purpose of this section is to characterize the visual (aesthetic) environment that currently exists in the Project area and to identify potential impacts to: visual character, views and potential light and glare impacts that could result from implementation of the Proposed Project. The analysis of aesthetics focuses on the visual relationship of the Proposed Project with existing visual characteristics in the surrounding area, as well as its consistency with applicable design policies and guidelines. The analysis of views addresses the potential of the Proposed Project to obstruct visual access to existing aesthetic features and scenic resources and the potential for light sources on the site to change ambient light levels in the Project area and potentially impact adjacent light-sensitive land uses. The analysis focuses on impacts to public spaces including roadways and open space uses.

The information contained in this section is based on plans provided by the Project architect (IDG Parkitects, Inc.), photographs taken by the EIR Project team, the biological analysis and update letter (see Section 3.3 Biological Resources and **Appendix D** including the original Biological Report, Protected Tree Report and ~~updates~~ Native Tree Report) and the following technical study:

- Harvard-Westlake Parking Improvement Plan, Lighting Evaluation, Lighting Design Alliance, September 27, 2013/revised December 15, 2015 (**Appendix I**)

EXISTING CONDITIONS

Aesthetics refers to visual resources and the quality of what can be seen or the overall visual perception of the environment. The analysis of aesthetics includes consideration of such elements as buildings, design character, landscaping, and open areas, as well as the relationships between these elements. Aesthetic features often consist of unique or prominent natural and/or man-made attributes or several small features that, when viewed together, create a whole that is visually distinctive, interesting and/or appealing. The degree of visual access to an aesthetic resource contributes to the value of aesthetic features, i.e. public views are of primary concern.

With respect to aesthetic resources, there are four perspectives in the Project vicinity to be analyzed:

1. Public views by motorists on Coldwater Canyon Avenue (a City-designated Secondary Scenic Highway)
2. Public views to and from the open space area (Coldwater Canyon Open Space, owned by the Mountains Recreation and Conservation Authority) to the west and southwest including the designated scenic corridor that passes approximately ~~200~~ 34 feet south of the Development Site.
3. Private views from homes and yards in immediate proximity to the site to the north, northwest and south (~~4~~ 5 homes).
4. Private views from homes further away to the south and across Coldwater Canyon Avenue (several of which are owned by the Harvard-Westlake School).

Visual Character

Visual character encompasses aspects such as design, size, shape, color, texture, and general composition of aesthetic features, as well as the relationships between these elements. Aesthetic features often consist of unique or prominent natural or man-made/urban attributes that are visually interesting or appealing. Adverse visual quality effects can include the loss of existing valued aesthetic features or the introduction of contrasting features that contribute to a decline in overall visual character. For instance, the introduction of contrasting features can overpower familiar features, eliminate context or associations with history, or create visual incompatibility where there may have been apparent efforts to maintain or promote a thematic or consistent character. The analysis of visual character addresses the visual relationship between existing and future potential land uses in the area, as well as consistency of the anticipated development with applicable regulatory plans that address aesthetic issues.

The Project Site is located along Coldwater Canyon Avenue. Coldwater Canyon Avenue is designated as a Secondary Scenic Highway by the Community Plan (~~a designated Secondary Scenic Highway in the vicinity of the Development Site~~ the recently adopted Mobility Plan designates Coldwater Canyon Avenue as an Avenue II rather than the previous designation of Secondary Highway), one of the north-south arteries in the City ~~of Los Angeles~~ that connect the eastern San Fernando Valley over the Santa Monica Mountains to Beverly Hills and Central Los Angeles beyond. The Coldwater Canyon Avenue roadway is contained within a canyon with increasingly steep walls as it approaches the crest of Santa Monica Mountains with the sides of the canyons rising steeply on either side of the roadway. The Development Site is located on the northern edge of the Santa Monica Mountains as Coldwater Canyon Avenue starts to rise to cross the mountains to the south. The Development Site itself is located on an east-facing slope with the terrain sloping gently at first but then becoming quite steep, rising to over 300 feet higher than the roadway beyond the ~~site~~ Development Site. Power and telephone poles and wiring are located along the west side of Coldwater Canyon adjacent on the eastern border of the Development Site.

Classrooms on the Harvard Westlake Campus are located immediately east of the Development Site across Coldwater Canyon Avenue on a gentle west-facing slope with single-family homes located on steeper ground further east (several of the homes immediately adjacent to the Harvard-Westlake ~~School~~ Campus to the southeast with views over the ~~campus~~ Harvard-Westlake Campus and towards the Development Site are owned by ~~the~~ Harvard-Westlake School).

There are views of the Development Site from single-family homes to the east (beyond the Campus), to the south (on Potosi Avenue ~~Drive~~) as well as from yards of a few (four) private single-family homes located immediately adjacent to the Development Site to the north and west.[1] The Development Site includes one vacant single-family home, on Potosi Avenue. Several of these homes contain vegetation that screen views of the Development Site as well as the steep topography that also screens the Development Site from view.

In addition, the Development Site abuts open space land owned by the Mountains Recreation and Conservation Authority located immediately west and continuing southwest of the Development Site (Coldwater Canyon Open Space). The open space area is densely vegetated in places making views from the open space somewhat limited. However, there are grassy areas immediately adjacent to the Development Site that provide short-range views.

The Development Site is visible to motorists on Coldwater Canyon Avenue as an expanse of vegetated, steeply sloping natural hillside before entering or exiting the urban San Fernando Valley. The flat areas of the Development Site are only visible to drivers in a few views as these areas of the site are generally above the eye-line of drivers.

Figures 3.1-1 and **3.1-2** show photo-locations of photographs taken in the vicinity of the Development Site, and **Figures 3.1-3** to ~~**3.1-15**~~ -**3.1-24** show visual character and existing views of the Project Site and Project area.

~~[1] In addition, one home located on Potosi would have views of the project site. This home is owned by Harvard-Westlake.~~

Figure 3.1-1
Aerial View of Development Site (location of proposed Parking Structure)

Figure 3.1-2
Aerial View of Harvard-Westlake Upper School

Figure 3.1-3
View of Development Site, Looking Northwest from Coldwater Canyon Avenue at Hacienda Drive (location 1 on map)

Figure 3.1-4
View of Development Site, Looking West Across Coldwater Canyon Avenue (location 2 on map)

Figure 3.1-5
View of Development Site, Looking Northwest from Coldwater Canyon Avenue near Harvard-Westlake Main Driveway (location 3 on the map)

Figure 3.1-6
View of Harvard-Westlake Driveway, Looking Northeast (location 4 on map)

Figure 3.1-7
View of Development Site, Looking Southwest from Harvard-Westlake Driveway (location 5 on map)

Figure 3.1-8
View of Middle portion of Development Site, Looking South (location 6 on map)

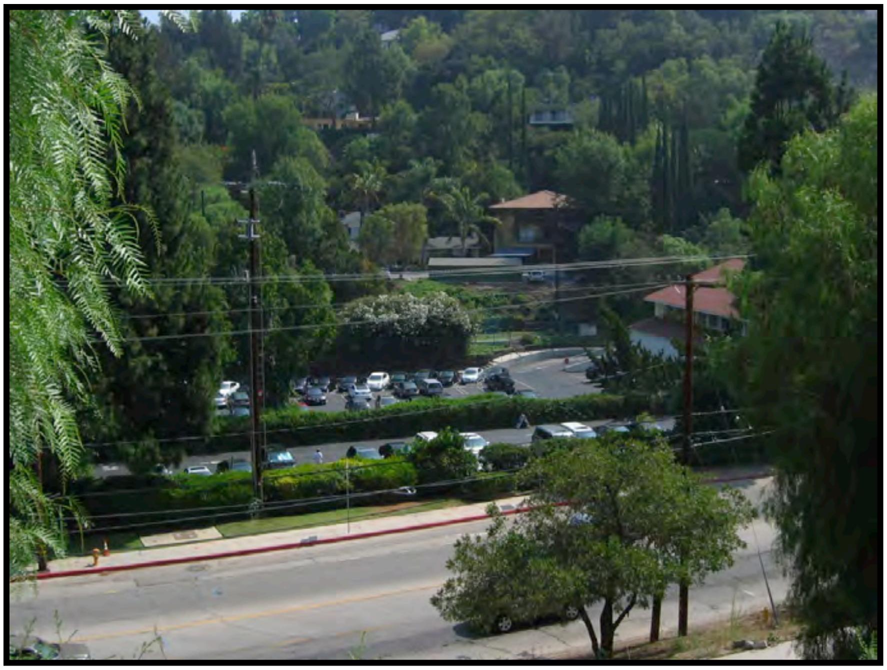


Figure 3.1-9
View of Harvard-Westlake School from Development Site, Looking East (location 7 on map)

Figure 3.1-10
View of Harvard-Westlake School from Development Site, Looking Southeast (location 8 on map)

Figure 3.1-11
View of Southeastern Edge of Development Site, Looking East
(location 9 on map)

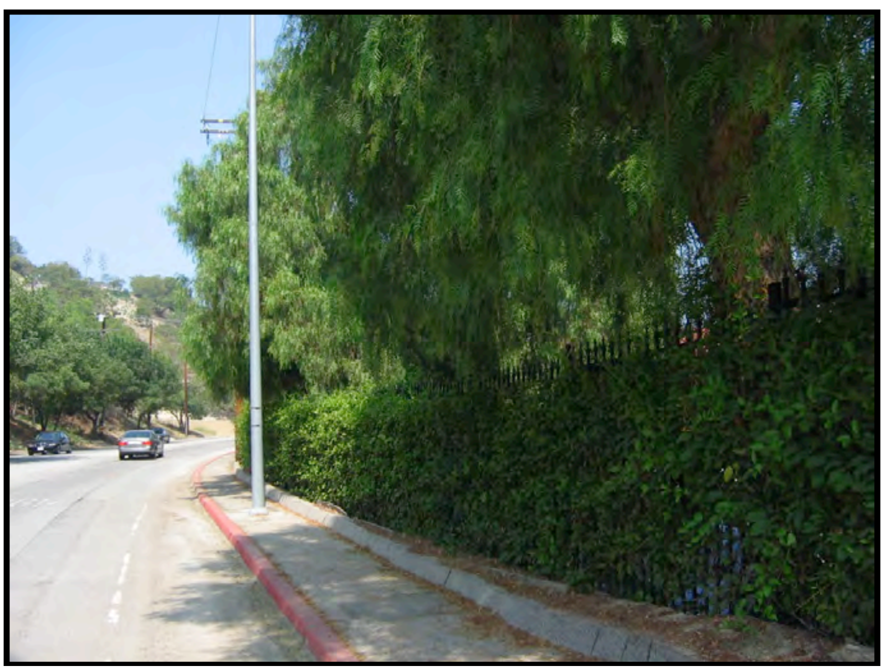


Figure 3.1-12
View of Main Harvard-Westlake School, Looking Northeast from
Coldwater Canyon Avenue (location A on map)

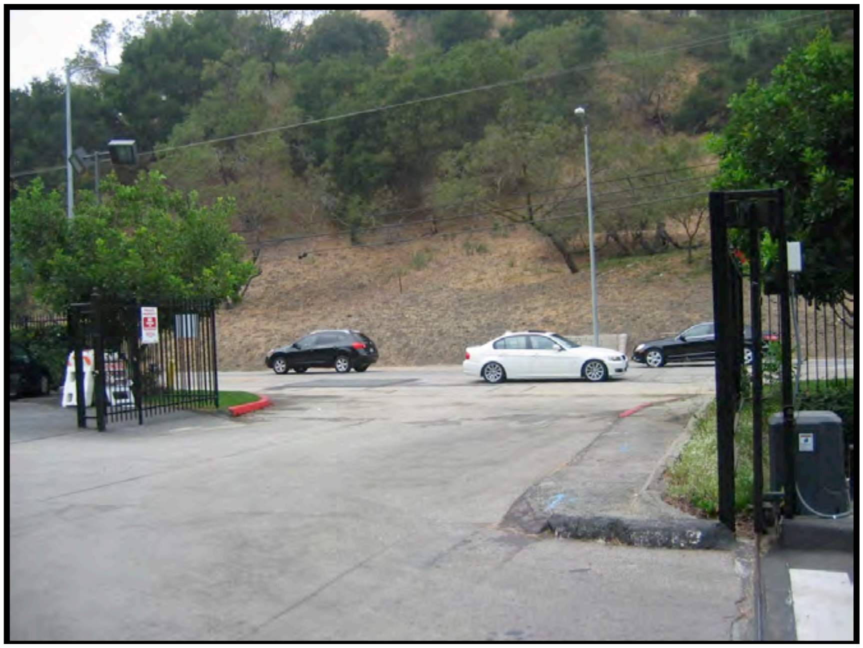


Figure 3.1-13
View of Hacienda Drive (vacated), Looking Southwest Towards Coldwater Canyon Avenue (location B on map)

Figure 3.1-14
View of Senior Parking Lot, Looking West from Hacienda Drive (location C on map)

Figure 3.1-15
View of Main Driveway and security booth, southwesterly facing
(location D on map)

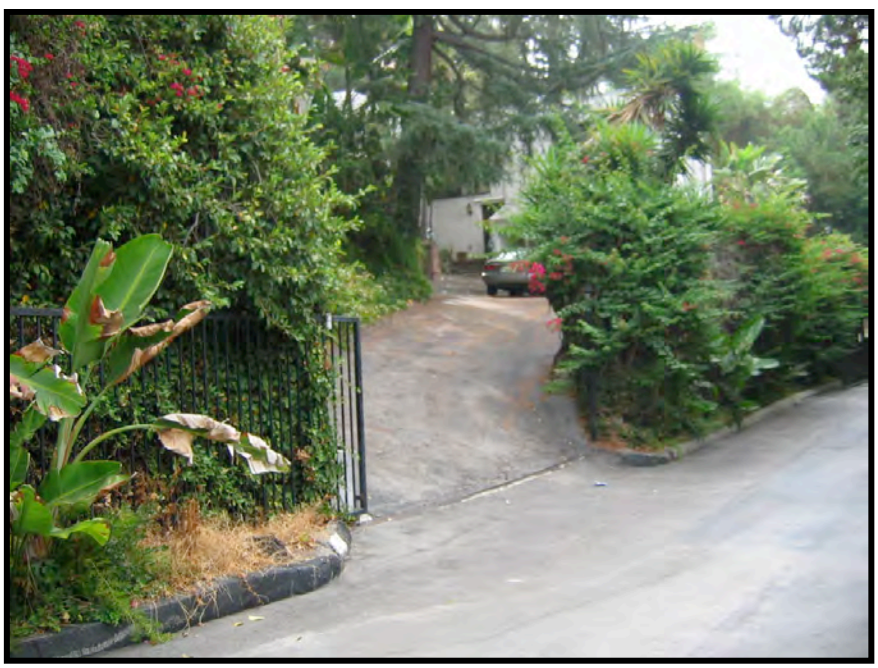


Figure 3.1-16
View of Adjacent House on Hacienda Drive, Looking Southeast
(location E on map)

Figure 3.1-17
View Looking Southeast across Development Site and Coldwater Canyon Avenue to Harvard-Westlake School from Conservancy Land Adjacent to Home Site on Galewood Street (location 10 on map)

Figure 3.1-18
View Looking North from (Harvard-Westlake Owned) Home Site on Potosi Avenue across Development Site (location 11 on map)

Figure 3.1-19
View Looking Northwest from Home Site on Avenida Del Sol across Harvard-Westlake School and Coldwater Canyon Avenue to Development Site (location F on map)

Figure 3.1-20
View Looking Northwest from Home Site on Alta Mesa Drive across Harvard-Westlake School and Coldwater Canyon Avenue to Development Site (location G on map)

Figure 3.1-21
View Looking Northeast across Development Site from 3663 Potosi (location 12 on map)

Figure 3.1-22
View Looking South from Adjacent to 3901 Van Noord (location 13 on map)

Figure 3.1-23
View Looking Northwest from Upper Alta Mesa (location H on map)

Figure 3.1-24
View Looking Southeast from Adjacent to St. Michael's Church Garden (location I on map)

Existing Scenic Views and Vistas

In general, the evaluation of views and vistas focuses on the extent to which a project could interfere with existing visual access to scenic resources (i.e., mountains, urban skyline, historic buildings, etc.). In general, the availability of views is closely tied to topography and distance from a scenic resource. Focal views consist of views of a particular object, scene, setting, or feature of visual interest. Panoramic views or vistas consist of views of a large geographic area for which the view may be wide and extend into the distance.

Structures and other elements constructed or developed as part of a project could obstruct focal or panoramic views. The State of California and the City of Los Angeles have recognized the value of visual access through planning and zoning regulations that designate, preserve, and enhance publicly valued views. Through the designation of scenic resources and various land use plans, the City specifies development standards that help prevent the obstruction of valued views. These standards can include the regulation of building height, mass, and floor area ratio (FAR), which can be principal issues in view obstruction.

Views refer to visual access and any obstruction of a focal point or panoramic view from an area. Views may be partially obstructed or entirely blocked by modifications to the environment. Conversely, modifications to the natural or man-made landscape of an area may create or enhance view opportunities. The analysis of views focuses on public views from public areas (streets and open spaces). In general, views are closely tied to topography and distance from visual features and resources.

Scenic views or vistas are generally panoramic public view access to natural features, including views of the ocean, striking or unusual natural terrain, or unique urban or historic features. The City of Los Angeles encompasses approximately 467 square miles of land area, including approximately 214 square miles of hills and mountains.[2] Of these landforms, the local mountains including the Santa Monica Mountains, the Santa Susanna Mountains and the San Gabriel Mountains are prominent (on clear days) in many views in the City of Los Angeles. The Santa Monica Mountains (which includes the Development Site) are 60 miles long and stretch from Elysian and Griffith Parks near Downtown Los Angeles to Point Mugu State Park in Ventura County, and are frequently visible from many areas of the City.

The Coldwater Canyon Open Space (owned by the Mountains Recreation and Conservancy Authority) is an open space area within the Santa Monica Mountains bordering the Development Site to the west and southwest. This area as well as the southern approximately ~~two-thirds~~ 75 percent of the Development Site are designated “Desirable Open Space” by the Sherman Oaks – Studio City – Toluca Lake – Cahuenga Pass Community Plan (see discussion of consistency with the Community Plan in Section 3.5 Land Use and impact discussion below). In general, this area contains areas of dense vegetation which limits some views of the Development Site. This area also contains steep topography that limits accessibility. As shown in **Figures 3.1-1** through **3.1-~~20~~ 24**, there are grassy areas within the open space land with short-range views of the Development Site. Longer range views of the Development Site (and from the Development Site) are frequently interrupted by topography and vegetation.

In the vicinity of the Development Site, Coldwater Canyon Avenue is designated as a Secondary Scenic Highway by the Community Plan (the recently adopted Mobility Plan designates Coldwater Canyon Avenue as an Avenue II rather than the previous designation of Secondary Highway). Mulholland Drive is identified by Caltrans as an officially designated County Scenic Highway, and as a Scenic Parkway by

[2] City of Los Angeles, City of Los Angeles Conservation Element, adopted September 2001 and State of California, Streets and Highways Code, Section 260-284 (see http://www.leginfo.ca.gov/cgi-bin/displaycode?section=shc&group=00001-01000&file=260-284).

the City of Los Angeles. The Development Site is not subject to the Mulholland Scenic Parkway Specific Plan (May 1992). The Specific Plan includes a one-mile buffer on both sides of Mulholland Drive. The Development Site is approximately 34 ~~185~~ feet from the Specific Plan's Outer Corridor Overlay Zone and approximately 2,185 ~~2,325~~ feet from the inner corridor overlay zone of the Mulholland Scenic Parkway Specific Plan; the Development Site is approximately 2,698 ~~2,825~~ feet from Mulholland Drive. The Southern Parking Lot abuts the Specific Plan's Outer Corridor Overlay Zone (see **Figure 3.1-~~21~~ 25** Specific Plan Area Map below). The City Planning Department has determined that the Project would not be visible from Mulholland Drive. The Mulholland Scenic Parkway Specific Plan identifies a prominent ridge extending outside the Outer Corridor Overlay Zone to a point approximately ~~400~~ 424 feet southwest of the Project Site. Because of the steep topography of the area and vegetation views of the ~~project site~~ Project Site are limited from this ridge.

The Community Plan identifies a Scenic Corridor, roughly corresponding to the Outer Corridor of the Mulholland Scenic Parkway Specific Plan, as passing approximately ~~200~~ 34 feet south of the Development Site and immediately adjacent to the southern tip of the Southern Parking Lot east of Coldwater Canyon Avenue, parallel to the mountain range (i.e. running east west) perpendicular to Coldwater Canyon Avenue. The Outer Corridor Overlay Zone of the Mulholland Scenic Parkway Specific Plan passes though the Coldwater Canyon Open Space approximately ~~200~~ 34 feet south of the Development Site (and immediately adjacent to the southern tip of the Project Site). **Figure 3.1-~~21~~ 25** shows the Outer Corridor Overlay Zone of the Mulholland Scenic Parkway Specific Plan and **Figure 3.6-1** Land Use Designations on the Development Site and in the Vicinity shows the Community Plan Scenic Corridor. Views of the Development Site from the Scenic Corridor are available between vegetated areas (see **Figures 3.1-1, 3.1-4, 3.1-13, 3.1-17, 3.1-18,** and **3.1-20**).

Shadows

Shading is a potential concern when new buildings can cast shadows onto residential and other sensitive buildings as well as outdoor use areas, including solar panels. Shading is a common and expected occurrence in urban areas, and it is often considered a beneficial feature when it provides cover from excess sunlight and heat (such as occurs in the San Fernando Valley). However, it can have an adverse impact if the blockage of direct sunlight substantially affects adjacent properties with uses that are sensitive to shading or when it interferes with the performance of sun-related activities. While some incidental shading on shadow sensitive uses is commonly acceptable, shading impacts are typically considered substantial when they occur for large portions of the main daylight hours. Shadow effects are dependent on several factors, including local topography, the height and bulk of a project's structural elements, sensitivity of surrounding uses, season, and duration of shadow projection.

Shadows are cast in a clockwise direction from west-northwest to east-northeast from approximately 9:00 a.m. to 4:00 p.m. or later depending on the season of the year: Summer Solstice (June 21), Spring/Fall Equinox (March 21 and September 21), and Winter Solstice (December 21). Generally, the shortest shadows are cast during the Summer Solstice and grow increasingly longer until the Winter Solstice. During the Winter Solstice, the sun is lower in the sky and shadows are at their maximum lengths.

Shadow impacts may be considered significant when they cover shadow-sensitive uses for a substantial amount of time (generally three consecutive hours or more). Shadow-sensitive uses generally include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses; commercial uses, such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors/panels.

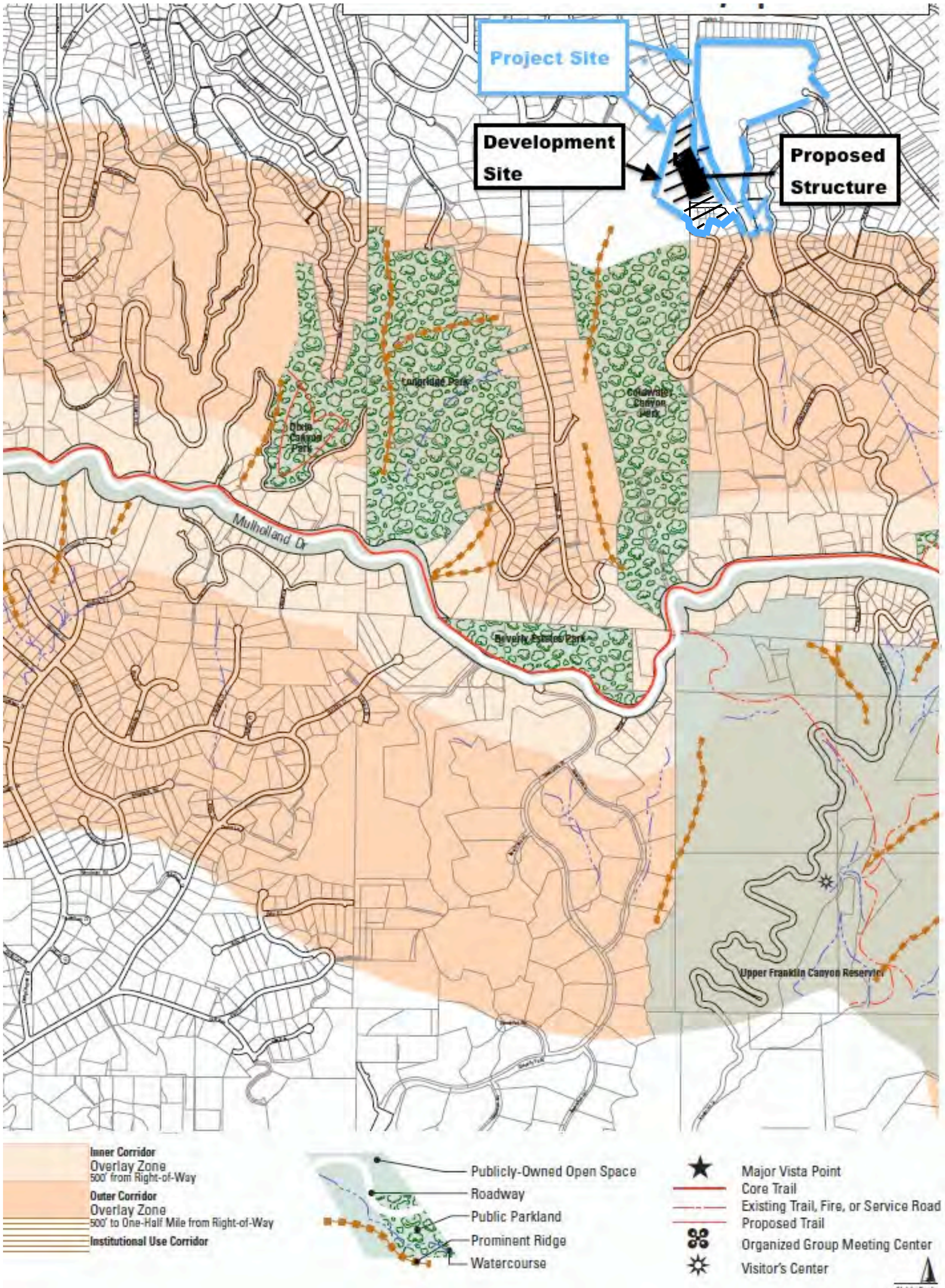


Figure 3.1-25
Mulholland Scenic Parkway Specific Plan

The Project area and the surrounding area are developed with the adjacent school and residential uses at higher elevations than the Development Site. The Development Site is located on an east-facing slope and receives sun in the morning. The mountains to the east, west and south limit solar access to the area.

Lighting

Light impacts are mostly associated with the use of artificial light during the evening and nighttime hours. Artificial light may be generated from point sources (i.e., sports field lighting, building and landscape lighting, security lighting and vehicle headlights), as well as from indirect sources (i.e., reflected light). Uses such as residences, board and care facilities, hospitals, hotels, and natural biological areas (see discussion in Section 3.3 Biological Resources) are considered light sensitive since they require minimal nighttime illumination for proper function, physical comfort, or commerce and are subject to disturbance by bright light sources.

Glare or perceived brightness is characterized as a diffused light, which is generated or reflected from a surface, often causing a nuisance to the viewer. Glare may be a daytime occurrence caused by the reflection of sunlight or artificial light from highly polished surfaces, such as window glass and reflective cladding materials, and may interfere with the safe operation of a motor vehicle on adjacent streets. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior facades largely or entirely comprised of highly reflective glass or mirror-like materials. Nighttime glare is primarily associated with a viewer being within the line-of-sight of bright point source lighting that contrasts with existing low ambient light conditions. The majority of existing buildings in the area (residences and the Harvard-Westlake Campus ~~School~~) are comprised of a mixture of reflective and non-reflective materials, which include concrete, stucco and glass. During the daytime, parked vehicles (on the Harvard-Westlake Campus and in residential driveways) can produce a source of glare from sunlight being reflected off windshields and other surfaces. Glare-sensitive uses generally include residences and motorists on roadways.

The Project ~~area~~ Site is located in an area typical of canyon communities in Los Angeles with medium to low levels of ambient lighting and glare. The Development Site itself and open space to the west and southwest are dark; prior to 2011, low-levels of lighting were present from ~~the two~~ four residential structures on-site.

Ambient exterior lighting at Harvard-Westlake School consists of the illumination of parking areas, security lighting for pedestrians, as well as lighting at Ted Slavin Field. The highest illumination on the Campus (and in the general area) is on Ted Slavin Field where nighttime games and practice extend to 8:00 pm on weeknights.[3] Other light sources in the Project vicinity include vehicular lighting and streetlights to illuminate roadways.

On June 20, 2014, the City's Department of Building and Safety received a complaint regarding the existing lights at the Ted Slavin Field. The City determined that the direct glare emanating from the field lights violated LAMC Section 93.0117 (Outdoor Lighting Affecting Residential Property) and issued an Order to Comply. In response, Harvard-Westlake School installed a more substantial external visor on the non-compliant light fixtures. These visors wrap 360 degrees around the light fixture and block direct line-of-sight glare from the light source at the surrounding residential properties. In addition to adding the external visors, aiming adjustments were made to the light fixtures to ensure the facility was in compliance with the LAMC. The City re-inspected the lights and concluded on February 18, 2015 that the lights were in compliance with the LAMC.

[3] Up to eight times per year the Harvard-Westlake School is allowed to have lights on until 11 pm -- up to seven Friday evenings and one Saturday evening per City Planning Department Case No. CPC-2006-2375-PAD.

The Development Site is currently primarily undeveloped with no sources of light or glare (one single-family home, which is owned by Harvard-Westlake, is a potential source of light but it is currently vacant). The Development Site together with the Coldwater Canyon Open Space to the west and southwest of the Development Site are dark at night. The residential neighborhoods that surround the Harvard-Westlake Campus and Development Site generally have low levels of nighttime illumination.

REGULATORY FRAMEWORK

City of Los Angeles General Plan

The General Plan Framework Element, adopted in December 1996 and re-adopted in August 2001, includes citywide goals, objectives, and policies related to urban form and neighborhood design. The General Plan Framework Element defines "urban form" as (1) the general pattern of building height and development intensity and (2) the "structural elements" that define the City physically, such as natural features, transportation corridors, open space, public facilities, as well as activity centers and focal elements. Similarly, the General Plan Framework Element defines "neighborhood design" as the physical character of neighborhoods and communities within the City.[4] ~~Some of the policies in the General Plan Framework Element encourage development of mixed-use projects or development of housing near commercial centers, corridors, and transit. Additionally, the General Plan identifies the area around and generally west of the intersection of Victory Boulevard and Coldwater Canyon as Community Center.~~

In addition to the General Plan Framework, the Conservation Element of the City's General Plan also identifies objectives, policies, and programs to address the landforms and scenic vistas, particularly the loss of visual or physical accessibility to visual corridors and scenic features and areas.[5]

Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan

The City ~~of Los Angeles~~ General Plan includes 35 community plans oriented toward specific geographic areas of the City; the community plans locally define the General Plan's more general citywide policies and programs. The Project ~~area~~ Site is located within the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan.

The Community Plan Land Use Map (as of March 2008) identifies the southern ~~two thirds~~ 75 percent of the Development Site, which is designated for Minimum Residential land use, as being located within the Desirable Open Space Special Boundary. Footnote 7 to the Community Plan's Land Use Map defines Desirable Open Space as follows: "Desirable Open Space is land which possess open space characteristics which should be protected and where additional development controls such as proposed in this Plan and Open Space Plan are needed to conserve such characteristics. These lands may be either publicly or privately owned. Conservation of such characteristics is needed to ensure the usefulness, safety and desirability of adjacent lands and to maintain the overall health, safety, welfare and attractiveness of the community." It appears that this footnote is intended to address land that is designated Open Space, not land that is designated for other uses but within the Desirable Open Space Special Boundary, since land that is designated for residential use is zoned for development, not open space. (See also discussion in Section 3.5 Land Use.)

4 City of Los Angeles, *The Citywide General Plan Framework -- An Element of the City of Los Angeles General Plan*, re-adopted August 8, 2001.

5 City of Los Angeles, *City of Los Angeles Conservation Element*, adopted September 2001.

The Community Plan identifies Coldwater Canyon Avenue from Ventura Boulevard to Mulholland Drive as a Secondary Scenic Highway (the recently adopted Mobility Plan designates Coldwater Canyon Avenue as an Avenue II rather than the previous designation of Secondary Highway). Mulholland Drive is identified as a Scenic Parkway by the Community Plan. In addition the Community Plan identifies a Scenic Corridor as passing approximately 34 ~~200~~ feet south of the Development Site.

The Community Plan includes the following design policies for parking structures (see Section 3.5 Land Use for a discussion of Project consistency with the Community Plan):

Parking structures shall be integrated with the design of the building they serve:

- Designing parking structure exteriors to match the style, materials and color of the main building.
- Landscaping to screen parking structures not architecturally integrated with the main building.
- Utilizing decorative walls and landscaping to buffer residential uses from parking structures.

City of Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) codifies the regulatory and penal ordinances of the City for the preservation of the public peace, health, and safety. There are several regulations in the LAMC pertaining to aesthetics, visual resources, and lighting that are applicable to the Proposed Project. These applicable regulations set the standards for nighttime lighting, building heights and setbacks, landscaping, and signage.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project is considered to have a significant aesthetic impact if it would result in the following:

Have a substantial impact on a scenic vista;

Substantially degrade scenic resources, including but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway;

Substantially degrade the existing visual character or quality of the site and its surroundings; or

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

The L.A. CEQA Thresholds Guide provides more specific guidance to determine~~,~~ not just the potential for significance, but to establish thresholds by which a potential aesthetic impact can be measured. By way of background, the L.A. CEQA Thresholds Guide observes that aesthetic impact assessment generally deals with the issue of visual contrast occurring among the components of form, line, color and texture, or the degree to which elements of the environment differ visually. The L.A. CEQA Thresholds Guide further notes that adverse visual effects can include the loss of natural features or areas, the removal of urban features with aesthetic value, or the introduction of contrasting urban features into natural areas or urban settings.

The following is noted in the L.A. CEQA Thresholds Guide:[6]

> "There is an extraordinary range of aesthetic characteristics and contrasts with the City of Los Angeles, including suburban neighborhoods, dense urban areas, and hillside residential areas. Given the size and diversity of the city, there are no aesthetic standards that apply to all areas… General aesthetic requirements that apply to individual zoning districts or types of land uses are provided in the Municipal Code [and in applicable community and specific plans]…While certain screening and significance thresholds can be identified for this issue, a degree of discretionary judgment may be required to determine the 'value' of the aesthetic resource or potential project impacts."

The L.A. CEQA Thresholds Guide recognizes the subjectivity brought to such an analysis and states that a determination of significance is to be made on a case-by-case basis based on the following considerations:[7]

Aesthetics/Visual Quality

- The amount or relative proportion of existing features or elements that substantially contribute to the valued visual character or image of a neighborhood, community, or localized area, which would be removed, altered, or demolished;
- The amount of natural open space to be graded or developed;
- The degree to which proposed structures in natural open space areas would be effectively integrated into the aesthetics of the site, through appropriate design, etc.;
- The degree of contrast between proposed features and existing features that represent the area's valued aesthetic image;
- The degree to which a project would contribute to the area's aesthetic value; and
- Applicable guidelines and regulations.

Based on these factors, the Proposed Project would have significant impacts if it were to have the potential to substantially alter, degrade, or eliminate the existing visual character of an area, including valued existing features or resources; or if a project were to introduce elements that substantially detract from the visual character of an area.

Views

- The nature and quality of recognized or valued views (such as natural topography, settings, manmade or natural features of visual interest, and resources such as mountains or the ocean);
- Whether a project affects views from a designated scenic highway, corridor, or parkway;
- The extent of obstruction (e.g., total blockage, partial interruption, or minor diminishment); and

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6 City of Los Angeles, L.A. CEQA Thresholds Guide, May 1998.
7 Ibid.

- The extent to which a project affects recognized views available from a length of a public roadway, bike path, or trail as opposed to a single, fixed vantage point.

Based on these factors, the Proposed Project would have potentially significant impacts with respect to views if anticipated development were to have the potential to substantially obstruct an existing recognized or valued view.

Light/Glare

- The change in ambient nighttime levels as a result of project sources; and
- The extent to which project lighting would spill off ~~the~~ a project site and affect adjacent light-sensitive areas.

Based on these criteria, the Proposed Project would have a significant impact on light aesthetics if lighting associated with anticipated development has the potential to substantially alter the character of off-site areas surrounding the Project Site.

Shading

The ~~City of Los Angeles~~ L.A. CEQA Thresholds Guide states that a proposed project would have a significant shading impact if: shadow sensitive uses would be shaded by project-related structures for more than three hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between early November and early March), or more than four hours between the hours of 9:00 AM and 5:00 PM Pacific Daylight Time (between early March and early November). Based on these criteria, a project would have a significant impact should shadows be cast on shade-sensitive uses for more hours than designated in the shading thresholds.

The ~~City of Los Angeles~~ L.A. CEQA Thresholds above are used in the following analysis.

IMPACTS

Visual Character of the Site and Surroundings

Construction activities generally cause a contrast to, and disruption in, the general order and aesthetic character of an area. Although temporary in nature, construction activities may cause a visually unappealing quality in the immediate vicinity of the Development Site for the duration of construction. The Development Site is already substantially disturbed (3.16 acres of the 6.83 acres) and is in an area where Coldwater Canyon Avenue is just starting to rise in to the mountains above. The area is developed to the north, east and south. The Development Site is a transitional site both in terms of topography and development. It slopes up to development above and as noted previously it has been substantially disturbed already by grading for homes and use for temporary storage of construction equipment and supplies. Most of the Development Site that is in oak/walnut woodland (1.9 acres of the 3.33 acres) would remain undisturbed by the Project. In addition, the Project would add 2.08 acres of new landscaping/permeable area (1.86 acres of landscaping and 0.22 acres of permeable area in the debris basin). Therefore, construction activities would not substantially alter the relative proportion of existing features (woodland) that contribute to the visual character of the Development Site nor would temporary construction activities substantially degrade the existing visual character of the disturbed area or the woodland area.

The Proposed Project consists of the development of a three-story (4-level) Parking Structure with a rooftop ~~athletic~~ practice field. The building would be 45-feet to the field level, or approximately 755 feet above mean sea level – (AMSL), and 57 feet (767 feet AMSL) to the top of the facilities building proposed to be located at the north end of the field. The Parking Structure would also feature a catchment fence (32 feet above the field level, 77 feet above grade, 787 feet AMSL) around and atop the field on top of the structure. There would be ~~10~~ 14 light poles (each with ~~two to three~~ four LED fixtures) that would reach a height of approximately seven feet above the catchment fence, or 39 feet above the field, with the total overall height up to approximately 84 feet above grade (794 feet AMSL).

The Proposed Project also includes a pedestrian bridge crossing Coldwater Canyon Avenue that would connect the proposed Parking Structure to the Harvard-Westlake ~~School~~ Campus. The pedestrian bridge would be an open design bow-truss frame. The curved shape of the bridge follows primary design features of the Project, using curved elements to blend more of the building elements into the natural landscape. The sides of the pedestrian bridge would be covered with metal spandrel panels along the lower portions of the bridge and metal mesh above to reduce the mass and to allow visual access to and from the bridge, improving overall security. The pedestrian bridge would also have translucent roof panels to enclose the pedestrian bridge without reducing natural light and to prevent items falling from the bridge onto the street below. The bridge colors would be the same as the colors used throughout the Project (earth tones -- tan, green and dark bronze) that would complement the existing campus architecture and would blend with the natural landscape of the Project Site.

The proposed pedestrian bridge would allow for safe crossing between the Parking Structure and the Harvard-Westlake Campus without stopping vehicles traveling north and south along Coldwater Canyon Avenue. For safety reasons associated with the danger of speeding vehicles currently traveling along Coldwater Canyon Avenue, no pedestrian access to the Development Site ~~will~~ would be provided from the street. Similarly, a sidewalk is not provided along the west side of Coldwater Canyon Avenue so as to further discourage the possibility of student drop-off or pick-ups from occurring along the west side of Coldwater Canyon Avenue.

The pedestrian bridge would reach a height of approximately 41 feet (approximately 18 feet as measured from the bottom of the bridge to the top of the bridge). The top of the elevator shaft on either end of the pedestrian bridge ~~will~~ would reach 65 feet (on the west side) and 46 feet (on the east side) in height. The pedestrian bridge would be approximately 163 feet long and 13 feet wide and would provide a minimum vehicular clearance of approximately 25 feet 7 inches above Coldwater Canyon Avenue. Connection to the pedestrian bridge would be provided at Level 2 of the proposed Parking Structure and a pedestrian bridge landing would be constructed on the Harvard-Westlake Campus. Pedestrians would be able to access the Harvard-Westlake Campus from the Parking Structure, and vice versa, only via the proposed pedestrian bridge crossing Coldwater Canyon Avenue.

~~Two retaining walls are proposed on the Development Site to retain the hillside to the west. The three primary retaining walls would be located on three sides (north, west and south) of the Parking Structure. Along the rear (west side) of the Parking Structure, the retaining wall would step back from east to west at the third level of the Parking Structure and would vary in height from 50 feet to 87 feet. The south face of the retaining wall would vary in height from 20 feet to 60 feet (from east to west), and the north face of the wall would vary in height from 30 feet to 70 feet (from east to west). The second retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This retaining wall would vary in height from 4 feet to 28 feet (from north to south). Due to the topography of the Development Site, the retaining walls are necessary to protect the adjacent hillsides and to construct the Parking Structure.~~

Four soil nail retaining walls are proposed on the Development Site in order to protect the adjacent hillsides and to construct the Parking Structure. The first soil nail retaining wall is located along the rear (west side) of the Parking Structure and is the lower portion of a stepped wall design along that section. It varies in height from 28 feet to 30 feet (south to north). The second soil nail retaining wall is the upper portion of the stepped retaining wall along the west side of the Parking Structure and also extends around the north and south sides of the Parking Structure. The south face of the second soil nail retaining wall would vary in height from 18 feet to 58 feet (from east to west), and at its eastern endpoint is directly abutted by a conventional retaining wall that gradually transitions to grade along the proposed southern access road. The west face of the second soil nail retaining wall varies from 52 feet to 90 feet in height (including the height of the first soil nail retaining wall), and the north face from 46 feet to 62 feet (from east to west). The third soil nail retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This soil nail retaining wall would vary in height from 17 to 44 feet (from north to south). The northern end of the third soil nail retaining wall terminates at an energy dissipation structure that, along with flow-through planters, treats and controls the flow of storm water so that it can be safely discharged onto Coldwater Canyon Avenue. The fourth soil nail retaining wall would be on the south end behind the south side of the second soil nail retaining wall and would vary in height from 4 feet to 23 feet (from east to west). All retaining wall height measurements include a 3-foot high protective fence.

The texture and colors of the retaining walls are intended to blend into the natural hillside area to the extent possible through the use of textured and colored concrete. The retaining walls would also be shielded by landscaping to further minimize their appearance from surrounding areas. The retaining walls would also maximize the amount of open space areas that could remain to the west of the Parking Structure within the steep hillside that is designated as “Desirable Open Space” on the Community Plan Land Use Map.

A debris basin is proposed to be located in the southwest corner of the Development Site. The debris basin would be earthen material. The basin would be surrounded by trees (within the newly landscaped area) that would be a mix of native vegetation (oaks) and other landscape trees that would provide a visual screen. The purpose of the debris basin is to collect and discharge water or other surficial runoff, such as might occur during a heavy rain event, from the hillside areas to the south and west. Similarly, ten deflection walls (on average 13 feet long and 18 inches to three feet tall) are also proposed on the northwest side of the Development Site. They would be installed along a 30-degree angle to the adjacent ascending topography and would deflect surficial runoff into a downstream debris channel to maintain positive flow.

The Proposed Project would include ~~vegetation~~ new landscaping and permeable area, or be undisturbed site except for planting new native vegetation/mitigation trees on approximately 63.98 percent ~~60%~~ of the Development Site (see **Figure 3.1-26** below). The maximum proposed building footprint~~, or maximum lot coverage,~~ for the Parking Structure would be approximately 28.12 percent ~~35.1%~~, plus an additional approximate 4.69 percent ~~4.5%~~ of hardscape areas and 3.21 percent ~~%~~ occupied by a vacant residence at 3680 Potosi Avenue and associated hardscape. Approximately 33.55 percent ~~39.9%~~ of the Development Site would be undisturbed Development Site except for planting new native vegetation/mitigation trees ~~remain in its existing vegetated state (except that new trees would be planted in this area to replace Protected Trees removed by the project on other areas of the site),~~ and approximately 30.43 percent ~~20.5%~~ of the Development Site would be new drought tolerant landscaping and permeable area. ~~newly landscaped using native vegetation~~.

SOURCE: IDG Parkitects, Inc.

Harvard-Westlake Parking Structure ■

Figure 3.1-26

Development Site -- Structure, Pavement and Landscaping

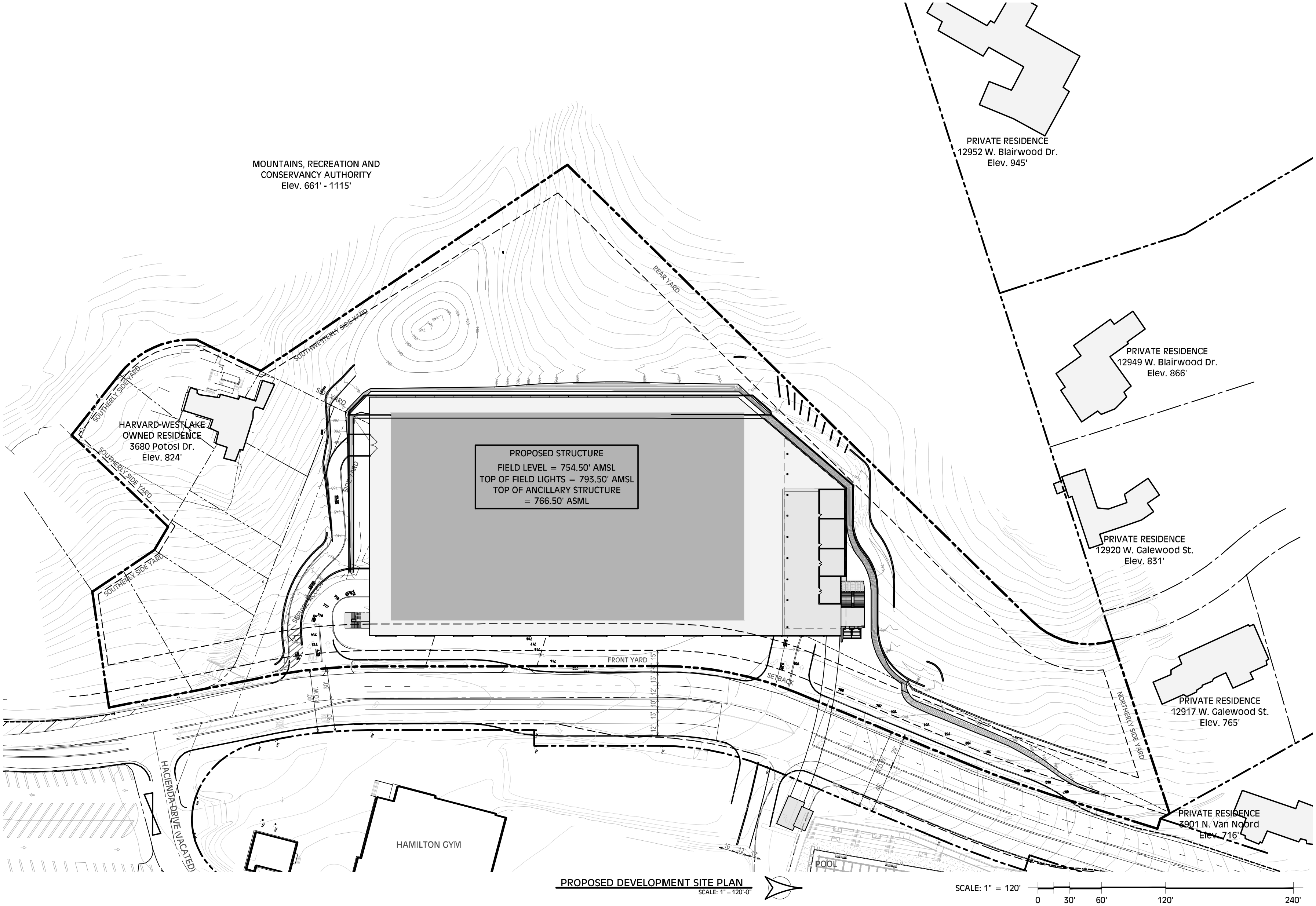
Landscaping on the Development Site would address the following objectives: 1) Incorporate native, drought tolerant species in support of a sustainable, Southern California biosphere, 2) Complement the Project's architectural features; and 3) Blend in the Parking Structure and debris basin with the surrounding hillside. Specific designs would be identified in consultation with the City Urban Forestry Division and include consideration of Coastal Live Oak, California Scrub Oak, Western Sycamore, Coastal Redwood, and Mexican Elderberry along with attractive native grasses and low-lying plantings. A wide range of specimen sizes (1 gallon to 48" boxes) would be used so that the objectives can be fulfilled at or near the completion of construction, rather than relying upon a gradual maturation cycle, and to provide a buffer between neighboring residential uses. Techniques such as clustering plantings together to mimic natural growth will also be used. Additional landscaping is also proposed along Coldwater Canyon Avenue. The vegetation would be designed to screen the Parking Structure and debris basin, and minimize their appearance (see renderings in **Figures 2-11** to **2-15**). ~~Additional landscaping is also proposed outside of the property lines along Coldwater Canyon Avenue. The vegetation would partially screen the new structure (see renderings of the new Structure in Section 2 Project Description, **Figures 2-11** through **2-15**).~~ The Harvard-Westlake School main driveway would also include new landscaping.

The hillside areas to the northwest and south would remain undeveloped with native vegetation and abundant trees. A Project elevation, floor plans and renderings are shown in **Figures 2-3** through **2-~~15~~ 16** in Section 2, Project Description. A site plan showing the relationship to adjacent uses is shown in **Figure 3.1-~~23~~ 27** ~~below~~.

The proposed Parking Structure includes a front yard setback of approximately 20 feet along Coldwater Canyon Avenue; a secondary retaining wall along a portion of Coldwater Canyon Avenue that is necessary to stabilize the hillside would be ~~setback~~ located ~~approximately 15 feet from~~ along the property line and approximately ~~21~~ 14 feet increasing to 23 feet from the roadway curb. A service access ramp for ~~Fire Department~~ service and emergency access to the roof/field level would be provided at the southern end of the site (no setback from the roadway). The pedestrian bridge support would be set back approximately 49 feet from the street on the west side of Coldwater Canyon Avenue; and would be set back approximately 16 feet on the east side.

There would be a minimum of approximately ~~69~~ 52-foot (increasing to ~~112~~ 169 feet as a result of the irregular shape of the Project Site and orientation of the Parking Structure ~~building~~) side yard setback along the southwesterly property line (which generally runs east-west) and a minimum approximately ~~47~~ 57-foot (increasing to ~~170~~ 196 feet) side yard setback along the northerly property line. A minimum of approximately ~~29~~ 35~~-foot~~ feet at the northwest corner (increasing to approximately ~~213~~ 206 feet along the western property line) rear yard setback would be provided along the westernmost property line that is approximately parallel to Coldwater Canyon Avenue.

The ~~steep~~ slopes on the southern, western, and northern portions of the Project Site ~~require~~ suggest that the ~~Proposed~~ Parking Structure ~~to~~ best be constructed close~~r~~ to Coldwater Canyon ~~(~~to avoid greater earth movement than is currently proposed~~)~~. This orientation allows for the Development Site to maintain a large amount of open space to the west, where the Development Site would remain in its natural vegetated state where it is within and abuts land that is designated "Desirable Open Space."



SOURCE: IDG Parkitects, Inc.

Figure 3.1-27

Site Plan Showing Relationship to Adjacent Uses

As a result of the irregular shape of the Development Site, the southwestern point of the Parking Structure and retaining wall would encroach in the southerly and north-south running southwesterly side yards to keep the Parking Structure at a maximum distance from the open space hillside area to the west. There are four immediately adjacent private residences that overlook the Development Site to the north and northwest. There is also a vacant home owned by Harvard-Westlake School on the southern end of the Development Site (with access from Potosi Avenue).[8] The ~~athletic~~ practice field level would be approximately ~~217~~ 186 feet from the closest private residence structure (12920 Galewood) located to the north. The retaining wall would be approximately ~~91~~ 124 feet (at the closest point) from the closest private residence structure (~~12917 Galewood~~ 3901 N. Van Noord).

Approximately ~~35.1~~ 28.12% (1.9 acres) of the (~~5.5~~ 6.83-acre) Development Site would be developed with the new structure and an additional ~~4.5~~ 4.69% (~~0.25~~ 0.32 acres) is proposed to be paved with driveways and an additional approximately ~~20.5~~ 30.43% of the Development Site would be newly landscaped. Approximately ~~39.9~~ 33.55% of the Development Site would remain undisturbed (except that new native vegetation/mitigation trees would be planted to mitigate loss of Protected Trees~~, replacing dead trees~~ and augmenting native vegetation in this area of the Development Site).

~~Over~~ Approximately half of the Development Site currently includes a number of generally flatter disturbed/graded areas previously developed with ~~two~~ four residential structures as well as an area that has been used for construction staging (this area is generally shown as disturbed area on **Figure 3.3-1** Vegetation Impact Map in Section 3.3, Biological Resources). The Project would impact ~~1.05~~ 1.43 acres of undisturbed oak/walnut woodland (out of a total of ~~2.33~~ 3.33 acres of oak/walnut woodland that are present on the Development Site); for more detailed discussion of impacts to oak/walnut woodland see Section 3.3 Biological Resources in particular **Table 3.3-3**.

Trees native to the area, including many protected by City Ordinance, substantially cover the remainder of the ~~site~~ Development Site. The Project would remove ~~129~~ 147 protected trees (~~12~~ 13 oaks and ~~117~~ 134 walnuts). It would impact ~~0.95~~ 1.43 acres (out of a total of 3.33 acres) of Southern Oak Woodland/Southern Walnut Woodland all on the Development Site. ~~as well as an additional 0.10 acres of adjacent woodland area; 2.24 acres of Southern Oak Woodland/Southern Walnut Woodland are present on the Development Site (2.97 acres were identified within the area surveyed)~~ ~~so~~ Therefore, the majority of this protected woodland community would remain undisturbed. Most of the walnut trees (78%) currently on-site are in poor health and are infected with a fungus that is anticipated to ultimately kill these trees, as more fully discussed in Section 3.3 Biological Resources.

The Project would include addition of trees to the existing woodland to more than replace the trees removed by the Project as well as walnut trees dying from the fungus disease (see Section 3.3 Biological Resources). In areas of the Development Site where the residential buildings were removed and areas that have been used for construction staging that are generally flatter than the remainder of the site, the Project would impact ~~2.79~~ 2.86 acres (out of ~~2.91~~ 3.16 existing acres) of disturbed/landscaped area as well as ~~0.10~~ 0.14 acres of ruderal (weedy) vegetation. Removal of the disturbed/landscaped and ruderal areas could be an aesthetic benefit. Removal of the ~~12~~ 13 oak and ~~117~~ 134 walnut trees and blocking views of wooded areas from Coldwater Canyon Avenue (a designated Secondary Scenic Highway) with a new building would be a significant impact. The proposed landscaping plan includes substantial screening of the structure that would substantially mitigate the Project impact. (See also Section 3.3 Biological Resources for a discussion of biological resources on the Project Site.)

[8] ~~Plus one home owned by Harvard-Westlake at the end of Potosi Drive (3680 Potosi Drive) would have views of the athletic field (and associated lights) and structure.~~

The Project Site (720 feet AMSL to 820 feet AMSL; rooftop ~~athletic~~ practice field would be at 755 feet AMSL) is generally topographically separated from the adjacent Coldwater Canyon Open Space area (which ranges from approximately 660 feet AMSL to 1,115 feet AMSL in the vicinity of the Development Site) and adjacent residences (which range from ~~765~~ 716 feet AMSL to 945 feet AMSL). The hillside that includes the Development Site and open space land is heavily vegetated with a few grassy areas (that allow some short-range views of the Development Site from the open space land).

~~Impacts to visual character are subjective.~~ Without mitigation, Project impacts to visual ~~quality~~ character are significant as a result of changing undeveloped land to developed in an area with a number of identified visual resources. ~~However, over half of the site has been previously disturbed and is currently generally disturbed/weedy, and the Development Site is somewhat topographically separated from adjacent uses (including the roadway and the residences to the north, south and west).~~

In summary, as noted above, the Development Site is already substantially disturbed (3.16 acres of the 6.83 acres) and is in an area where Coldwater Canyon Avenue is just starting to rise in to the mountains above. The area is developed to the north, east and south. The Development Site is a transitional site both in terms of topography and development. It slopes up to development above and as noted previously it has been substantially disturbed already. Most of the Development Site that is in oak/walnut woodland (1.9 acres of the 3.33 acres) would remain undisturbed by the Project. In addition, the Project would add 2.08 acres of new landscaping/permeable area (1.86 acres of landscaping and 0.22 acres of permeable area in the debris basin). In addition the Parking Structure would incorporate high-quality design and would include high-quality building materials. Therefore, the Project would not substantially alter the relative proportion of existing features (woodland) that contribute to the valued visual character of the Development Site nor would it substantially degrade the existing visual character.

The addition of a pedestrian bridge over a designated ~~Secondary~~ Scenic Highway is potentially significant without mitigation because it would interrupt views of the mountains to the south for a short portion of Coldwater Canyon Avenue and would create a more urban feel to a mountain roadway just as it starts to climb into the mountains to the south. The design and building materials of the pedestrian bridge, including minimal night lighting, would reduce massing and visibility and would reduce impacts to a less than significant level.

Scenic Views

The proposed ~~athletic~~ practice field is located approximately ~~217~~ 186 feet from the closest adjacent single-family residence to the north, at 12920 Galewood. Due to the sloping hillside terrain, natural topography and vegetation, homes on the west side of Coldwater Canyon would have limited views of the Parking Structure. The Development Site would be partially visible from yards of the immediately adjacent residences (north, west and south). However, existing and new vegetation would serve to impair views of the Development Site from yards of these adjacent residences.

The Parking Structure would be visible from grassy areas of the open space land (Coldwater Open Space, owned by the Mountains Recreation and Conservation Authority) immediately west of the Development Site. The debris basin would be set back at least 10 feet from the property line that divides the Development Site and the Coldwater Open Space. The retaining wall would be approximately ~~69~~ 52 feet (at the southeast corner) to ~~213~~ 206 feet (along the western property line) from the open space area, with the Parking Structure an additional 31 feet further away. However, new trees planted to mitigate tree loss on the Development Site would screen some of the views of the ~~site~~ Development Site from these areas (see also Section 3.3 Biological Resources for a discussion of impacts to wildlife). As noted above, the debris basin would be surrounded by trees (within the newly landscaped area) that would be a mix of native vegetation (oaks) and other landscape trees that would provide a visual screen of both the debris basin and the Parking Structure from the property line to the west.

Because ~~adjacent~~ surrounding residences (west, south, north and east) are mostly above the elevation of the roof of the Parking Structure, the Parking Structure and rooftop ~~athletic~~ practice field would appear as a green ~~athletic~~ practice field with synthetic grass, similar to the athletic field (Ted Slavin Field) that currently exists on the Harvard-Westlake Campus. One home immediately to the north that is adjacent to the Development Site is blocked from view by an intervening hill; views from that home would not change substantially except for views of a glow from lights.

Private residences to the east across Coldwater Canyon Avenue and east of the Harvard-Westlake Campus (some of which are owned by Harvard-Westlake) would experience the greatest change in views. Their existing views of open space on the Development Site (a substantial fraction of which is degraded/disturbed land) would change to that of a landscaped Parking Structure with ~~an~~ ~~athletic~~ practice field on top.

The Parking Structure and pedestrian bridge would be prominent in views of motorists on Coldwater Canyon Avenue (a designated Secondary Scenic Highway) in the immediate vicinity of the Development Site. The ~~west~~ east side of Coldwater Canyon Avenue is already developed with the Harvard-Westlake classrooms and facilities ~~Campus~~. The Project would increase the urbanization of this area by developing the street frontage on the west side of the street. This area of Coldwater Canyon Avenue is an entry point into the community of Studio City. The pedestrian bridge could be viewed as a gateway to/from Studio City. Because of curves in the roadway the pedestrian bridge would be visible to drivers for only a relatively short duration on Coldwater Canyon Avenue (a City- designated scenic highway); it would be visible for approximately 0.45 miles.

The Project would not block any scenic views for motorists; it would be located along and across (the pedestrian bridge) Coldwater Canyon Avenue, a designated Secondary Scenic Highway and would therefore change motorists' views in that stretch of Coldwater Canyon Avenue. ~~Impacts to motorist views would be along a relatively short (because of curves in the roadway) segment of Coldwater Canyon Avenue.~~ The Project is approximately ~~200~~ 34 feet south of a designated Scenic Corridor; this corridor is substantially screened from motorist view by topography and vegetation. Views of the site from the Scenic Corridor are substantially screened by dense vegetation. The Project would be partially visible from grassy areas of the immediately adjacent open space use (Coldwater Canyon Open Space), although much of the open space includes dense vegetation that screens the ~~site~~ Development Site from view. The Project would also be partially visible from private residences east across Coldwater Canyon Avenue as well as ~~homes and yards~~ up to ~~of 6~~ 5 homes to the north, northwest and south ~~and west~~.

Similar to impacts to visual character, impacts to views can be very subjective, especially in a semi-urban environment. For the same reasons that visual character would not be substantially degraded, impacts to views and scenic resources would not be substantially degraded. As noted above for impacts to visual character, the Development Site is already substantially disturbed (3.16 acres of the 6.83 acres) and is in an area where Coldwater Canyon Avenue is just starting to rise in to the mountains above. The area is developed to the north, east and south.

The Development Site is a transitional location both in terms of topography and development. It slopes up to development above and as noted previously it has been substantially disturbed already. Most of the Development Site that is in oak/walnut woodland (1.9 acres of the 3.33 acres) would remain undisturbed by the Project. In addition, the Proposed Project would add 2.08 acres of new landscaping/permeable area (1.86 acres of landscaping and 0.22 acres of permeable area in the debris basin). Therefore, the Project would not substantially degrade scenic resources (primarily on-site woodland but also views of mountains to the south) and would not substantially obstruct an existing recognized or valued view. While it would disrupt views on a City-designated scenic highway, the length/duration of the obstruction would be short (approximately 0.45 miles – 0.2 miles as viewed from the south looking north and 0.25 miles as viewed from the north looking south) because of curves in the roadway and as noted above, design features would minimize bulk and visibility.

Shadows

Given the location of the Project Site nestled ~~in to~~ into a west-facing hillside, the Project would not cast shadows on shade-sensitive uses. Therefore, the Project does not have the potential to cause significant shading impacts.

Light and Glare

The Project area is similar to many of the hillside areas in Los Angeles' canyons, hillside residential areas overlook the canyon roadway. Ambient lighting is generally medium to low with light and glare associated with reflective construction materials (private residences as well as the Harvard-Westlake Campus and St. Michael's Church), street lights, parking area lighting, automobile/vehicle lighting, as well as signage. The majority of existing structures in the area (the Harvard-Westlake Campus, surrounding residences and St. Michael's Church) are comprised of non-reflective materials, such as concrete and stucco.

During the daytime, moving and parked vehicles in the canyon and on the campus produce glare from sunlight being reflected off windshields and other surfaces. Existing night lighting includes City of Los Angeles street lights as well as night and security lighting on the Harvard-Westlake Campus and weeknight lighting (to 8:00 pm) on the Ted Slavin Field.[9]

Residential hillside neighborhoods (as well as the neighborhood immediately north of the campus which is on flatter land) surrounding the Harvard-Westlake Campus and the Development Site generally have low levels of nighttime illumination. Streetlights (and parking area lighting on the Harvard-Westlake Campus) provide medium levels of illumination on local roadways (and parking areas). Lighting of Ted Slavin Field on the Harvard-Westlake Campus (allowed to 8:00 p.m. on weekdays) provides a high level of illumination on the field (75 footcandles -- suitable for game play); however, there is relatively low spillover of light (see **Figure 3.1-~~24~~ 28**) that diminishes rapidly with distance from the field.[10] The lighted area of Ted Slavin Field and the lights themselves are visible from Coldwater Canyon Avenue and surrounding homes that overlook the Harvard-Westlake Campus. Adjacent residents have expressed concern about perceived glare from the artificial turf (the surface material used on Ted Slavin Field that is also proposed for the practice field is Field Turf; Field Turf is approximately 3 inches thick – thicker than Astroturf which is flatter and closer to 3/8 of an inch thick). Measurements show that the grass exhibits "diffuse reflection" i.e. light is reflected in multiple directions, which does not result in significant glare (see **Appendix I**).

~~Athletic~~ Practice Field Lights

Lighting of the ~~athletic~~ practice field would be prominent in views of the Development Site as seen from residential uses to the east. While substantial light would not be cast on to these uses, views of the ~~site~~

[9] Up to eight times per year the school is allowed to have lights on until 11 pm -- up to seven Friday evenings and one Saturday evening, per City Planning Department Case No. CPC-2006-2375-PAD.

[10] Spillover lighting from Ted Slavin Field diminishes with distance from the field. Spillover direct lighting on adjacent residential properties is substantially less than the City's threshold of 2 footcandles.

Development Site would change from a dark hillside to a lighted structure with an illuminated field during weekday evening hours up to 8:00 pm (the field would be lighted if needed weekdays up to 8 pm; no lighting would be allowed on weekends). Lighting of the ~~athletic~~ practice field would be with fixtures similar to (i.e. Musco brand lights) those used on Ted Slavin Field (see **Figure 3.1-~~24~~ 28**). ~~The Ted Slavin Field has four light poles with a total of 68 lights. On the Ted Slavin Field the following light levels are provided: play-level lights provide 75 footcandles of light; for practice play 50 footcandles are provided; for exiting 25 footcandles are provided. The proposed practice field would have 10 light poles each with two or three lights and is designed to have lighting levels of 30 footcandles on the field.~~

A lighting plan has been prepared (see **Figure 3.1-29**), including ~~10~~ 14 light poles (~~five~~ seven on each side of the field) each with ~~two to three~~ four LED fixtures per pole. Light poles would extend approximately 39 feet above the field level (up to approximately 84 feet above ground level; or approximately 794 feet AMSL) and would be painted green to blend with the surrounding foliage.

The ~~athletic~~ practice field would be at an elevation of approximately 755 feet AMSL. ~~Four~~ Five residences are located immediately adjacent to the Development Site (see **Figure 3.1-~~23~~ 27**) – and/or adjacent to the Coldwater Open Space with proximity to the Development Site (south, ~~west and~~ north and northwest). ~~All but one~~ Three of these residences are located at a higher elevation than both the ~~athletic~~ practice field and the top of the lights. One home would be above the elevation of the field but below the elevation of the lights and one home would be lower than the field but behind a hillside.

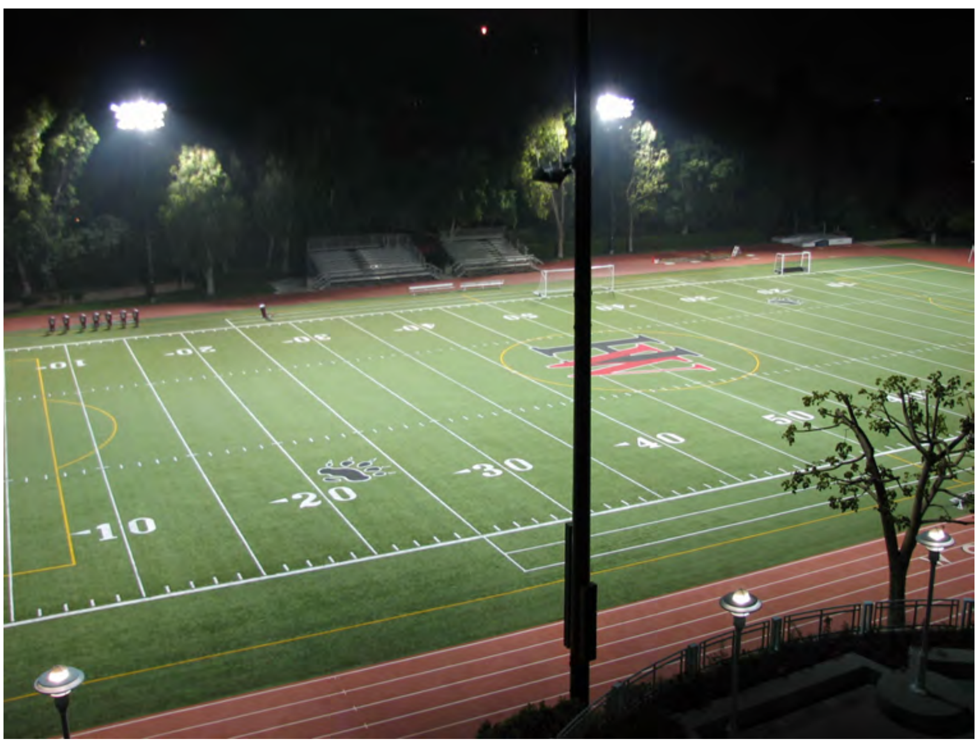


Figure 3.1-28
Night Lighting of Ted Slavin Field and Track Illustrating Precise Targeting of Lighting and Limited Spillover Lighting

The closest private residence structure not owned by Harvard-Westlake (12920 Galewood Street), located approximately ~~217~~ 186 feet to the north of the ~~athletic~~ field, is located at an elevation of approximately 831 feet above mean sea level (AMSL) (i.e. 37 feet above the height of the lights and 76 feet above the field level – see **Table 3.1-1** below for relative heights of all adjacent homes); other residences to the north and northwest at the ends of Blairwood Drive (12952 Blairwood Drive) and also another residence on Galewood Street (12917 Galewood Street) are located at elevations ranging from 765 feet AMSL to 945 feet AMSL (from east to west). Adjacent residence structures shown in **Table 3.1-1** are located at distances of ~~217~~ 186 feet to ~~356~~ 509 feet from the ~~athletic~~ practice field. One residence (12917 W. Galewood Street) located approximately 297 feet to the northeast of the ~~athletic~~ field would be located at an elevation of approximately 10 feet above the field level and 29 feet lower than the lights, at approximately 765 feet AMSL.

Other than this one residence, the Parking Structure, including lights, would be at a lower elevation than immediately neighboring residences. The house lower than the level of lights (12917 W. Galewood Street) would be somewhat shielded from the ~~athletic~~ practice field lights by an intervening hill and vegetation. In addition the house at 3901 N. Van Noord would be lower than the level of the field and lights; it would be mostly shielded from the structure by an intervening hillside. The house at the southern end of ~~on~~ Potosi (~~3663~~ 3680 Potosi) that overlooks the Development Site is owned by Harvard-Westlake and is now part of the Development Site.~~; it would have a clear view of lights and the field~~. The elevations of properties that overlook the Development Site on the west side of Coldwater Canyon Avenue and their distances to a) the construction limit line (15 feet beyond the retaining walls), b) the Parking Structure and c) the ~~athletic~~ practice field are shown in **Table 3.1-1**.

TABLE 3.1-1: DISTANCES FROM RESIDENTIAL STRUCTURES AND PROPERTY LINES TO CONSTRUCTION ACTIVITY, PARKING STRUCTURE AND ~~ATHLETIC~~ PRACTICE FIELD

Address	Elevation of Residence (AMSL) Relative Height Compared to Field/Lights	Distance from Residence / Property Line to Construction Limit Line	Distance from Residence / Property Line to Parking Structure	Distance from Residence / Property Line to ~~Athletic~~ Practice Field
3901 N. Van Noord*	716 ft -39 feet/-78	~~119 ft/ 54 ft.~~ 77 ft./16 ft.	~~405 ft./ 330 ft.~~ 405 ft./ 351 ft.	509 ft./ 434 ft.*
12917 W. Galewood	765 ft. +10 feet/-29feet	~~91 ft./ 43 ft.~~ 92 ft./15 ft.	303 ft./ 257 ft.	297 ft./ 252 ft.
12920 W. Galewood	831 ft. +76 feet/+37 feet	~~176 ft./ 139 ft.~~ 167 ft// 171 ft.	~~222 ft./ 200 ft.~~ 204 ft. / 200 ft.	~~217 ft./ 184 ft.~~ 186 ft./ 184 ft.
12949 W. Blairwood	866 ft. +111 feet/+72 feet	~~198 ft./ 163 ft.~~ 197 ft./ 191 ft.	225 ft./ 200 ft.	219 ft./ 184 ft.
12952 W. Blairwood	945 ft. +190 feet/+151 feet	~~335 ft./ 210 ft.~~ 308 ft./ 209 ft.	362 ft./ 237 ft.	356 ft./ 231 ft.
3663 Potosi	849 ft. +94 feet/+55 feet	~~341 ft./ 297 ft.~~ 279 ft./ 223 ft.	~~373 ft./ 328 ft.~~ 373 ft./ 318 ft.	~~368 ft./ 323 ft.~~ 367 ft./ 313 ft.

* The property line for this residence is adjacent to the Development Site; there is no line of sight from the residence to the ~~athletic~~ practice field. The residence is below the level of the field and lights and the line of sight would be blocked by the Parking Structure itself. There is also an intervening vegetated hillside that would substantially block line of sight to the Parking Structure.
SOURCE: Innovative Design Group

The ~~proposed athletic~~ practice field atop the Proposed Parking Structure is proposed to be lighted to a level suitable for practice play – which is less than the light level necessary for game play. The Ted Slavin Field has a lighting system suitable for game play. A state-of-the-art lighting system is proposed (similar to the Musco Green System, which is also used on the Ted Slavin Field – except that on the Development Site they would be designed to provide light levels for practice rather than game play; on the proposed practice field, lighting levels are designed to provide 30 footcandles of illumination (as compared to 50 footcandles that is used for practice play on the Ted Slavin Field and 75 footcandles that is used for game play). In order to provide greater directional control over the lights and minimize spillover light, there would be a greater number of light poles on the practice field as compared to the Ted Slavin Field with fewer lights on each pole as compared to Ted Slavin Field (~~10~~ 14 poles each with ~~two or three~~ four LED light fixtures for a total of 56 fixtures as compared to four poles with a total of 68 light fixtures); in addition light poles on the practice field would be considerably shorter than those on the Ted Slavin Field (39 feet tall as compared to 60 feet on the east side of Ted Slavin Field and 80 feet on the west side).

A lighting plan has been prepared by Musco Sports Lighting (Musco) and lighting levels have been calculated, based on the lighting plan (see **Figure 3.1-~~25~~ 29** for lighting fixture specifications), for the proposed field and adjacent properties (see **Figure 3.1-~~26~~ 30** for calculated light levels in footcandles on the field and surrounding areas). Topography adjacent to the ~~structure~~ Parking Structure as well as the retaining walls would reduce the spillover of light on to adjacent property.

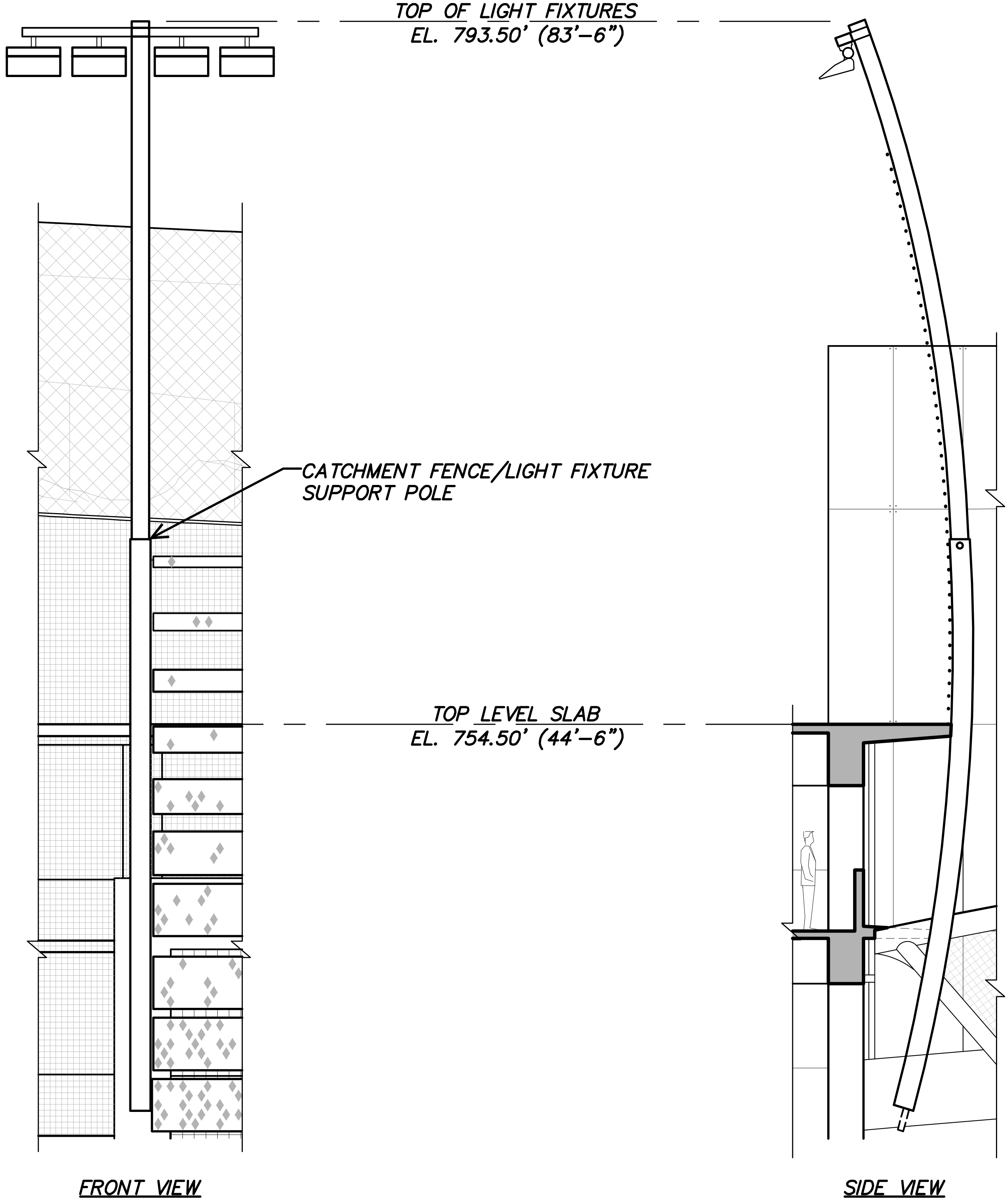
Musco assumed ~~five~~ seven poles per side with ~~two to three~~ four LED fixtures per pole. The plan also assumed the use of Musco's ~~long visors~~ light shields on all their fixtures to direct the light downward onto the playing surface while cutting off light as much as possible outside of the field. Each fixture would be individually aimed to optimize light on the field of play while at the same time minimizing spill and glare. While a different lighting system could be used, the analysis presented herein assumes that the plan prepared by Musco represents a reasonably conservative plan for purposes of analysis of spillover lighting.

Using the Musco lighting plan, the proposed lighting system would result in field lighting levels appropriate for a practice field. The lighting system proposed by Musco is not anticipated to result in substantial light on adjacent open space land. Taking into account topography and proposed retaining walls, 0.0 footcandles[11] of direct glare (the terms spillover lighting and direct glare are used interchangeably in this RDEIR) is calculated on adjacent open space property (see **Figure 3.1-26** and **Appendix I).** To the south, along the planned street (Hacienda Drive) spillover lighting would reach ~~0.7~~ 0.2 fc. ~~In addition, Harvard-Westlake School-owned property to the south of Hacienda Drive would experience some spillover lighting (0.3 fc).~~

Two footcandles (fc) is identified as an acceptable level for spillover lighting on residential property for local jurisdictions including the City~~ of Los Angeles~~.[12] The lighting system for the proposed ~~athletic~~ practice field would be designed to result in negligible spillover lighting onto adjacent residential and open space property. Spillover lighting would be confined to the immediately adjacent areas of the Development Site and Coldwater Canyon Avenue immediately in front of the Development Site. ~~The lighting plan proposed by Musco would result in the most spillover lighting on Coldwater Canyon Avenue (up to 3.5 fc).~~ The area with the most spillover lighting under Musco's proposed plan would be on Coldwater Canyon Avenue. However, at a maximum of 0.4 fc and only on the western side of the roadway, such spillover lighting would be minor and would not affect vehicular traffic.

[11] One footcandle (fc) indicates the amount of light cast on a surface by a one- candela [one candle] source one foot away.

[12] LAMC Section 93.0117 indicates that lighting shall not cause more than two footcandles (fc) of lighting intensity or direct glare from the light source at any residential property.

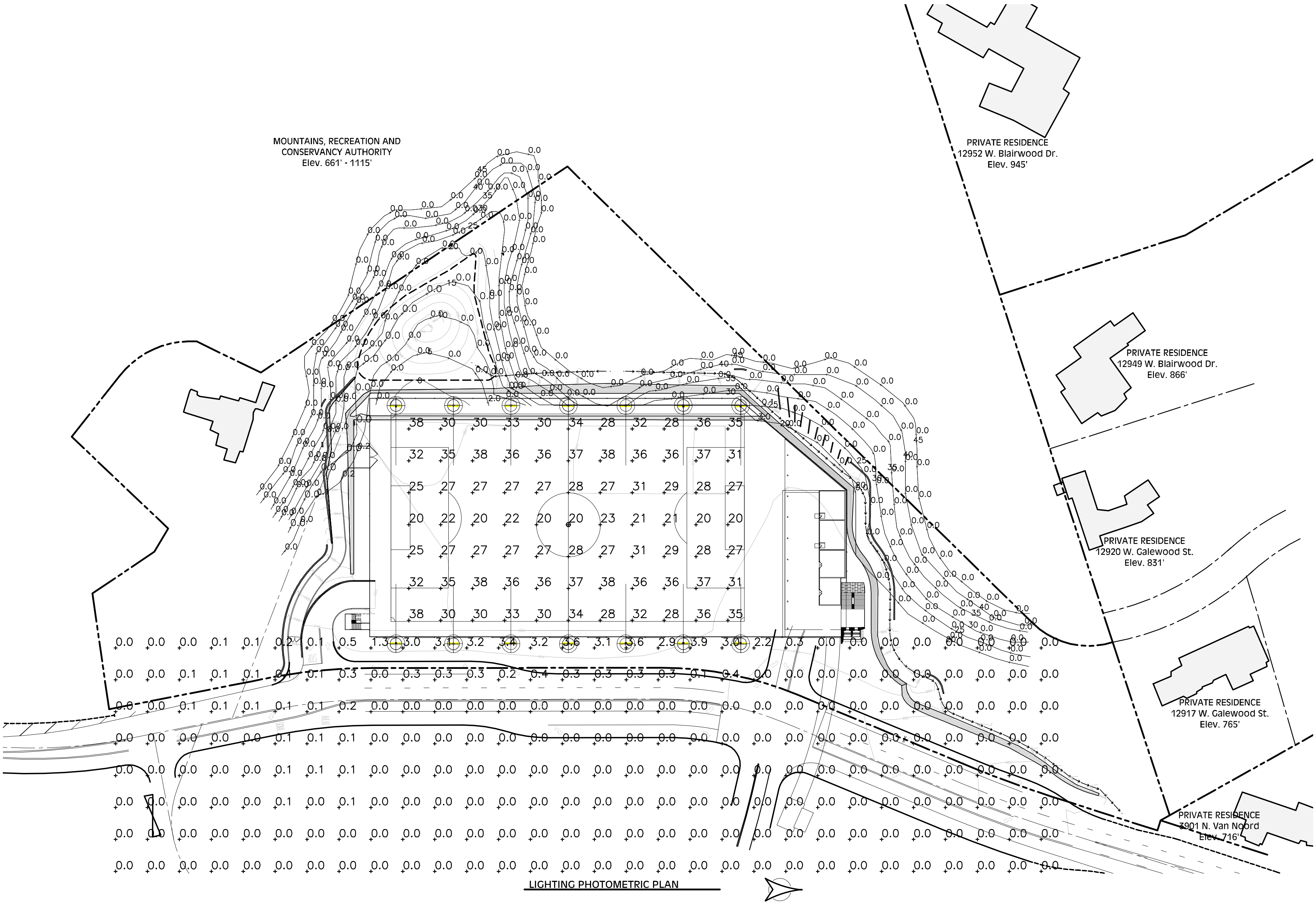


SOURCE: IDG Parkitects, Inc.

Harvard-Westlake Parking Structure ■

Figure 3.1-29

Lighting Fixture Specifications



Map shows lighting levels in foot-candles.

SOURCE: IDG Parkitects, Inc., Musco Sports Lighting, LLC

Figure 3.1-30

Lighting Map

The Project would result in new views of the lighted practice field (up to 8 p.m. weeknights) from private residences to the east, and yards of residences to the north, south and west.~~[13]~~ These impacts would be to a relatively small number of private properties and, as noted above, private views are not valued to the same extent as public ~~views.~~ in a CEQA analysis. The Development Site is somewhat screened by topography and vegetation from the Coldwater Canyon Open Space (which ranges in elevation from 660 feet AMSL to 1,115 feet AMSL); similarly, lighting on the Development Site would be somewhat screened from the designated Scenic Corridor by intervening dense vegetation. However, a glow from the lighted ~~athletic~~ field would be visible from the adjacent Coldwater Canyon Open Space and the Scenic Corridor located ~~200~~ 34 feet south of the Development Site. Motorists also would be able to see lights from the ~~athletic~~ practice field.

In addition the pedestrian bridge would include security and minimal architectural lighting comprised of fixtures located in hand rails along the full length of the pedestrian bridge, located below the height of the spandrels with no fixtures provided on the pedestrian bridge canopy above. This lighting design provides illumination of the walking surface while eliminating any views of the light fixtures from outside the pedestrian bridge. Lighting of the pedestrian bridge would be perceived as a glow that would be visible to motorists on Coldwater Canyon Avenue, a designated ~~Secondary~~ Scenic Highway.

Potential impacts to light and glare are considered potentially significant ~~without mitigation~~.

In summary, direct glare would not exceed:

- 0.0 fc on adjacent residential properties
- ~~3.5~~ 0.4 fc on Coldwater Canyon Avenue
- ~~negligible spillover lighting (~~0.0 fc~~)~~ on adjacent open space land owned by the Mountains Recreation and Conservancy Authority.

Residential uses to the north are also anticipated to receive negligible (0.0 fc) spillover light (see **Figure 3.1-~~25~~ 30)**. Such levels of spillover lighting are all well below the level of 2 fc on residential property considered acceptable by the City ~~of Los Angeles~~ (as indicated in LAMC Section 93.0117). Field lighting would be used weekdays up to 8 p.m. as needed; no weekend use of lights would be allowed. ~~However,~~ The lighted field (although not the light sources) would be visible from a number of homes and yards in the surrounding area, which could be annoying to some residents as a result of different sensitivities of different individuals; however, annoyance is not a threshold of significance. Therefore, because the Project would comply with spillover lighting requirements in residential areas and would be limited to before 8 p.m. on weeknights, the proposed ~~athletic~~ practice field would result in less-than-significant impacts related to lighting.

Security Lighting and Interior Garage Lights and Headlights

Without screening, the Project's interior garage lighting and/or headlights from cars inside the structure could produce glaring sources of light that could impact residential uses east of the Development Site and the Harvard-Westlake Campus across Coldwater Canyon Avenue. However, all interior lighting point sources would be shielded from view.

~~[13] Plus one home owned by Harvard-Westlake at the end of Potosi Drive (3680 Potosi Drive) would have views of the athletic field (and associated lights) and structure.~~

Exterior lighting ~~(building and landscape)~~ would be integrated with the building design to promote student safety ~~and highlight architectural details~~ ~~and landscaping~~. Exterior lighting would be shielded to reduce glare and eliminate light being cast into the night sky. ~~Additionally,~~ Interior and exterior security lighting would be integrated into the architectural and landscape lighting system:

- As noted above and below, pedestrian bridge lighting would be incorporated into the handrails and would be directed downward.
- Practice field level security lighting would be incorporated into the electronically-controlled field lights and would be set to provide the minimum recommended illumination for security/emergency purposes.
- Within the structure, LED down lights (average 5 fc) would include shielding elements that, from the outside of the parking structure, would eliminate any direct views of the light source.
- Stairwells and stair landings would likely include a single source above each landing (likely using the same LED fixtures and shields incorporated into the parking structure).
- The use of lighting incorporated into the stairwell handrails would also be considered.
- The access road would include small, ground level lighting fixtures that would only be activated for security or emergency purposes in order to illuminate the roadway and roadway boundaries (i.e., lights would not routinely be on). Lighting would be primarily for emergency vehicles and evacuation from the structure (if necessary).
- There would be no general and/or decorative landscape lighting.

Pedestrian Bridge

Glare from buildings or structures can be a problem when the sun is low in the sky and reflective surfaces reflect light on to roadways potentially momentarily blinding or distracting drivers. The Project is located within a canyon with relatively steep sides that limit the duration of daily sunshine onto the Development Site, including the proposed pedestrian bridge. Late afternoon sun, which is the source of most glare problems, is behind the steep west hill, thus, shading the Proposed Structure and pedestrian bridge from sun when glare has the highest potential to reflect off structures in to the eyes of drivers. The proposed pedestrian bridge over Coldwater Canyon Avenue is designed to minimize potential glare. The east side elevator core is rotated to the west to minimize any potential low winter morning sun onto the glass. Extended overhangs would shade the glass during the day and in the late afternoon and evening, the bridge would be in shade. Several large trees are located on both sides of the elevators providing a screened view to and from the street. No glass is proposed on the bridge itself. All the exterior surfaces would be a painted finish with a flat (no gloss) texture on all the building elements. Also, the exterior finish colors would be earth tones with low reflective values.

Lighting of the pedestrian bridge would be provided in fixtures concealed inside handrails inside the bridge so that no light point source would be visible from the street and spillover light on to the street below is not anticipated. Lighting of the bridge would be low-level security lighting that would be activated by motion sensors (in order to minimize the amount of time they are on).

As described above, the proposed Pedestrian Bridge is not anticipated to result in significant glare or lighting impacts because lighting would be minimal and in the handrails only and therefore only visible from elsewhere as a low-level glow through the mesh.

Therefore, in summary, as detailed above, the Project would not create a substantial source of light or glare which could adversely affect day or nighttime views in the area. The Project would result in minor changes in ambient lighting levels and would not substantially affect adjacent light-sensitive uses.

Therefore, the Project would not substantially alter the character of off-site areas surrounding the Project Site.

CUMULATIVE IMPACTS

Aesthetic impacts, especially in hillside areas are location-specific, as there are few long-distance views available within the canyons. Development under the Proposed Project would result in increased urban density along the Coldwater Canyon Avenue corridor. There are no related projects proposed along the Coldwater Canyon Avenue corridor, therefore this impact is considered less than significant.

REGULATORY COMPLIANCE MEASURES

RC-AES-1: Every building, structure, or portion thereof, shall be maintained in a safe and sanitary condition and good repair, and free from graffiti, debris, rubbish, garbage, trash, overgrown vegetation or other similar material, pursuant to LAMC Section 91.8104.

RC-AES-2: Building materials shall be of neutral colors designed to blend in with the surrounding hillside. The exterior of all buildings and fences shall be kept free from graffiti when such graffiti is visible from a public street or alley, pursuant to LAMC Section 91.8104.15.

RC-AES-3: Project lighting shall comply with LAMC Section 93.0117. As such, lighting shall not cause more than two footcandles (fc) of lighting intensity or direct glare from the light source at any residential property.

PROJECT DESIGN FEATURES

The following Project Design Features would serve to enhance visual character of the Proposed Structure as well as screen it in views from surrounding areas.

PDF-AES-1: All open areas not used for buildings, driveways, or athletic facilities shall be attractively landscaped and maintained in accordance with a landscape plan, including an automatic irrigation plan, prepared by a licensed landscape architect to the satisfaction of the decisionmaker. Natural areas shall be maintained as much as feasible in their natural state. The plant palette shall include extensive use of native vegetation. At a minimum, non-protected trees (4" diameter at breast height – dbh) to be removed from the Project Site shall be replaced at a ratio of ~~1:1~~ 2:1 (protected trees are addressed in Section 3.3 Biological Resources, they will be required to be replaced at a ratio of 4:1). Views of the Parking Structure from off-site areas shall be screened to the maximum extent feasible so that views of the ~~site~~ Development Site contain extensive vegetation and views of parking levels and the lighted ~~athletic~~ practice field are screened to the extent feasible (once plantings have reached maturity, which in general shall be within five years).

PDF-AES-2: The orientation of the Parking Structure (along Coldwater Canyon Avenue close to the roadway) allows for the Development Site to maintain a large amount of open space to the rear, where the property shall remain in its natural vegetated state (trees planted to mitigate the loss of Protected Trees would be planted in this area) adjacent to land owned by the Mountains Recreation and Conservation Authority.

PDF-AES-3: The proposed retaining walls shall be constructed with earth tone textures and finishes. The proposed cast-in-place concrete walls would be provided with a natural appearing rock finish and colored to match the indigenous rock.

PDF-AES-4: Musco sports LED lighting fixtures (or equal alternative) with visor or shield system shall be used to illuminate the ~~athletic~~ practice field to provide better light control, reduce glare, and reduce the amount of spill light. Sports lighting fixtures shall be painted a natural green color so that they blend in to the natural surroundings. Sports lighting fixtures shall be on a ~~time clock~~ remotely controllable timer to ensure the fixtures are turned off at or before 8:00pm on weeknights. No lighting will be allowed on weekends.

PDF-AES-5: Interior and exterior security lighting shall be integrated into the architectural and landscape lighting system:

- ~~Lighting for the~~ Pedestrian bridge lighting shall be integrated within the handrails and mounted at a height below the adjacent solid metal panels to eliminate any source of glare from the bridge. Light from the handrails shall illuminate the bridge walkway only and not spillover onto Coldwater Canyon Avenue.
- Practice field level security lighting shall be incorporated into the electronically-controlled field lights and shall be set to provide the minimum recommended illumination for security/emergency purposes.
- Within the structure, LED down lights (average 5 fc) shall include shielding elements that, from the outside of the parking structure, shall eliminate any direct views of the light source.
- Stairwells and stair landings shall include a single source above each landing (likely using the same LED fixtures and shields incorporated into the main structure).
- The use of lighting incorporated into the stairwell handrails shall also be included.
- The access road shall include small, ground level lighting fixtures that shall only be activated for security or emergency purposes in order to illuminate the roadway and roadway boundaries (i.e., lights would not routinely be on). Lighting shall be primarily for emergency vehicles and evacuation from the structure (if necessary).
- There shall be no general and/or decorative landscape lighting.

MITIGATION MEASURES

Light and Glare

MM-AES-1: Any lighting related to construction activities shall be shielded or directed to prevent any direct illumination onto residential property located outside of the Harvard-Westlake School property.

MM-AES-2: Permanent exterior lighting shall incorporate fixtures and light sources that focus light onto the Project Site to minimize light trespass and prevent direct views of the fixture source from adjacent properties.

MM-AES-3: Spillover light levels shall not exceed 0.0 foot candles on adjacent residential and open space properties (this mitigation measure shall not apply to property owned by Harvard-Westlake).

MM-AES-4: The Project shall not use highly reflective building materials such as mirrored glass in exterior façades. All building materials shall be diffuse and of low reflectance to prevent potential glare. Examples of appropriate non-reflective building materials include cement, plaster, concrete, metal, and non-mirrored glass, and could likely include additional materials as technology advances in the future.

MM-AES-5: All outdoor lighting (including ~~athletic~~ practice field lighting, security and landscape lighting) shall be designed and installed so that the lighting at residential and open space properties is minimized and in no event exceeds 0.0 footcandles (this mitigation measure shall not apply to property owned by Harvard-Westlake). Permanent exterior lighting shall be shielded to prevent direct views of the fixture source from adjacent residential neighbors. Fixtures shall also be focused properly to limit the amount of spillover lighting.

MM-AES-6: The Parking Structure shall include appropriate measures to ensure that neither interior lighting of the structure nor headlights from cars using the structure cause light to disturb residents in the vicinity of the Development Site to the north, west or east of the site across Coldwater Canyon Avenue. All interior parking garage fixtures shall be shielded to prevent direct views of the source when viewed from outside the structure. The design of the Parking Structure shall incorporate screening elements to prevent lighting and car headlights from disturbing residences around the Project Site. Interior lighting fixtures shall be controlled by photocells and occupancy sensors to reduce the light output of the fixtures when the structure is unoccupied.

MM-AES-7: The Project applicant shall retain a lighting design expert to implement the following protocol, and prepare a report to be submitted to the Department of Building and Safety, to ensure and document, compliance with all City lighting regulations, assumptions used in the EIR analysis and all mitigation measures, no later than 6 months after a certificate of occupancy is granted:

a) Six representative testing sites shall be established on or next to those light sensitive receptors that have the greatest exposure to site lighting (residential uses east of the Campus, and open space and residential uses to the west and north of the Development Site).

b) A light meter mounted to a tripod at eye level, facing the Development Site, should be calibrated and measurements should be taken to determine ambient light levels with Project lights on.

c) A reading should be taken with lights on and then with lights off to determine the change in ambient light levels.

d) The difference between the two would be the amount of light the Project casts onto the sensitive receptor.

MM-AES-8: Building materials, including those on the pedestrian bridge shall be of low reflectivity to prevent potential glare reflected on to motorists along Coldwater Canyon Avenue. Lighting elements on the bridge shall be concealed to minimize spillover light on to the street below.

MM-AES-9: A~~n~~ three ~~eight-~~foot-tall (total average height) ~~cable retention system (to prevent rock fall) combined with a~~ green chain link fence (with undulating top), with vines and other climbing plants as appropriate, and adjacent appropriate native plantings shall be constructed atop retaining walls to further assist in screening the parking structure and light and glare from the practice field on to adjacent residences.

SIGNIFICANCE AFTER MITIGATION

Impacts from the Project after application of all regulatory compliance measures, project design features and mitigation measures would be less than significant to aesthetic resources (visual character, views, and light and glare) due to application of landscaping and use of state-of-the-art light shielding. Impacts to shading would be less than significant without mitigation.

3.2 AIR QUALITY AND GREENHOUSE GAS

This section provides an overview of existing air quality conditions and evaluates the construction and operational impacts associated with the Proposed Project. Supporting data and calculations are included in Appendix C. Both short-term construction emissions occurring from activities, such as site grading and haul truck trips, and long-term effects related to the ongoing operation of the Proposed Project are discussed in this section. This analysis focuses on air pollution from two perspectives: daily emissions and pollutant concentrations. "Emissions" refer to the quantity of pollutants released into the air, measured in pounds per day (ppd). "Concentrations" refer to the amount of pollutant material per volumetric unit of air, measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). This section was prepared by Terry A. Hayes Associates Inc. Data used in the air quality modeling and the modeling results are included in Appendix C Air Quality.

EXISTING CONDITIONS

Pollutants and Effects

Criteria air pollutants are defined as pollutants for which the Federal and State of California governments have established ambient air quality standards for outdoor concentrations to protect public health. The Federal and State standards have been set at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter 2.5 microns or less in diameter ($PM_{2.5}$), particulate matter ten microns or less in diameter (PM_{10}), and lead (Pb).

Greenhouse gases (GHG) are also pollutants of concern based on scientific and political concern with global climate change. GHGs are discussed below in addition to the criteria pollutants.

Carbon Monoxide. CO is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas such as the Project Site, automobile exhaust accounts for the majority of CO emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient CO concentrations generally follows the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February.[1] The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Ozone. O_3 is a colorless gas that is formed in the atmosphere when reactive organic gases (ROG), which includes volatile organic compounds (VOC), and nitrogen oxides (NO_X) react in

[1] Inversion is an atmospheric condition in which a layer of warm air traps cooler air near the surface of the earth, preventing the normal rising of surface air.

the presence of ultraviolet sunlight. O_3 is not a primary pollutant; it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of ROG and NO_X, the components of O_3, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn, on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. The greatest source of smog-producing gases is the automobile. Short-term exposure (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes.

Nitrogen Dioxide. NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to O_3 formation. NO_2 also contributes to the formation of PM_{10}. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase of bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 ppm.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries. Generally, the highest levels of SO_2 are found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and erode iron and steel. Sulfur oxide (SO_X) refers to any of several compounds of sulfur and oxygen, the most important of which is SO_2.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Fine particulate matter, or $PM_{2.5}$, is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g. motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_2, NO_X, and VOC. Inhalable particulate matter, or PM_{10}, is approximately 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates can cause lung damage directly. These substances can be absorbed into the blood stream and cause damage elsewhere in the body. These substances can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissues.

Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

Lead. Pb in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturers of batteries, paint, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phase-out of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities have become lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Visibility Reducing Particles. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Sulfates. Sulfates are the fully oxidized ionic form of sulfur that occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to sulfur dioxide (SO_2) during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features. Effects of sulfate exposure at high levels include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility, and, due to fact that they are usually acidic, can harm ecosystems and damage materials and property.

Hydrogen Sulfide. Hydrogen sulfide is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing hydrogen sulfide at levels above the standard will result in exposure to a very disagreeable odor.

Vinyl Chloride. Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes ~~in~~ liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation. Vinyl chloride exposure has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans.

Toxic Air Contaminants. Toxic air contaminants (TACs) are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects; however, the emission of a toxic chemical does not automatically create a health hazard. Other factors, such as the amount of the chemical; its toxicity, and how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust and may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources.

The emission of toxic substances into the air can be damaging to human health and to the environment. Human exposure to these pollutants at sufficient concentrations and durations can result in cancer, poisoning, and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems. Pollutants deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food. The carcinogenic potential of TACs is a particular public health concern because many scientists currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer.

Diesel Particulate Matter. According to the 2006 California Almanac of Emissions and Air Quality, the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from the exhaust of diesel-fueled engines (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances.

Diesel exhaust is composed of two phases, gas and particle, and both phases contribute to the health risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra fine diesel particulates are of the greatest health concern, and may be composed of elemental carbon with absorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements.

Diesel exhaust is emitted from a broad range of diesel engines; the on road diesel engines of trucks, buses and cars and the off road diesel engines that include locomotives, marine vessels and heavy duty equipment. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

The most common exposure to diesel PM is breathing the air that contains diesel PM. The fine and ultra-fine particles are respirable (similar to $PM_{2.5}$), which means that they can avoid many of the human respiratory system defense mechanisms and enter deeply into the lung. Exposure to diesel PM comes from both on-road and off-road engine exhaust that is either directly emitted from the engines or lingering in the atmosphere.

Diesel exhaust causes health effects from both short-term or acute exposures, and long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to just diesel PM but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes acute and chronic health effects. Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat and lungs, and some neurological effects such as lightheadedness. Acute exposure may also elicit a cough or nausea as well as exacerbate asthma. Chronic exposure to diesel PM in experimental animal inhalation studies have shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that diesel exhaust is a likely carcinogen. Human epidemiological studies demonstrate an association between diesel exhaust exposure and increased lung cancer rates in occupational settings.

Greenhouse Gases. Greenhouse gas (GHG) emissions refer to a group of emissions that are generally believed to affect global climate conditions. Simply put, the greenhouse effect compares the Earth and the atmosphere surrounding it to a greenhouse with glass panes. The glass panes in a greenhouse let heat from sunlight in and reduce the amount of heat that escapes. GHGs, such as carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O) keep the average surface temperature of the Earth close to 60 degrees Fahrenheit (°F). Without the GHG effect, the Earth would be a frozen globe with an average surface temperature of approximately 5°F.

In addition to CO_2, CH_4, and N_2O, GHGs include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and water vapor. Of all the GHGs, CO_2 is the most abundant pollutant that contributes to climate change through fossil fuel combustion. CO_2 comprised 81 percent of the total GHG emissions in California in 2002 and non-fossil fuel CO_2 comprised 2.3 percent. The other GHGs are less abundant but have higher global warming potential than CO_2. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO_2, denoted as CO_2e. The CO_2e of CH_4 and N_2O represented 6.4 and 6.8 percent, respectively, of the 2002 California GHG emissions. Other high global warming potential gases represented 3.5 percent of these emissions. In addition, there are a number of man-made pollutants, such as CO, NO_X, non-methane VOC, and SO_2, that have indirect effects on terrestrial or solar radiation absorption by influencing the formation or destruction of other climate change emissions.

Air Pollution Climatology

The Project Site is located within the Los Angeles County portion of the South Coast Air Basin (Basin). Ambient pollution concentrations recorded in Los Angeles County are among the highest in the four counties comprising the Basin. The Basin is in an area of high air pollution potential due to its climate and topography. The general region lies in the semi-permanent high pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of its perimeter. The mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region.

The Basin experiences frequent temperature inversions. Temperature typically decreases with height. However, under inversion conditions, temperature increases as altitude increases, thereby preventing air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere. This interaction creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and NO_2 react under strong sunlight, creating smog. Light, daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to CO and NO_2 emissions. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.). In the morning, CO levels are relatively high due to cold temperatures and the large number of cars traveling. High CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO emissions are produced almost entirely from automobiles, the highest CO concentrations in the Basin are associated with heavy traffic. NO_2 concentrations are also generally higher during fall and winter days.

Local Climate

The mountains and hills within the Basin contribute to the variation of rainfall, temperature, and winds throughout the region. Within the Project Site and its vicinity, the average wind speed, as recorded at the Burbank Wind Monitoring Station, is approximately 3.8 miles per hour, with calm winds occurring approximately 10 percent of the time. Wind in the vicinity of the Project Site predominately blows from the southeast. The annual average temperature in the vicinity is 64°F with an average winter temperature of approximately 55°F and an average summer temperature of approximately 73°F.[2] Total precipitation in the Project area averages approximately 17 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer. Precipitation averages approximately ten inches during the winter, approximately four inches during the spring, approximately two inches during the fall, and less than one inch during the summer.[3]

Air Monitoring Data

The South Coast Air Quality Management District (SCAQMD) monitors air quality conditions at 37 locations throughout the Basin. The Project Site is located in SCAQMD's Coastal Air Monitoring Subregion, which is served by the West Los Angeles – VA Hospital Monitoring Station, and located approximately 12 miles southwest of the Project Site in the City of Los Angeles (**Figure 3.2-1**). Historical data from the Los Angeles VA Hospital Monitoring Station was used to characterize existing conditions in the vicinity of the Project. Criteria pollutants monitored at the Los Angeles VA Hospital Monitoring Station include O_3, CO, and NO_2. However, the Los Angeles VA Hospital Monitoring Station does not monitor ~~SO_2,~~ $PM_{2.5}$ and PM_{10}.

The next most representative monitoring station located in the Project vicinity, that measures the remaining criteria pollutants, is the Los Angeles – North Main Street Monitoring Station. Historical data from these stations was used to characterize existing ~~SO_2,~~ $PM_{2.5}$ and PM_{10} levels. Neither of these two stations monitor SO_2 as of 2012.

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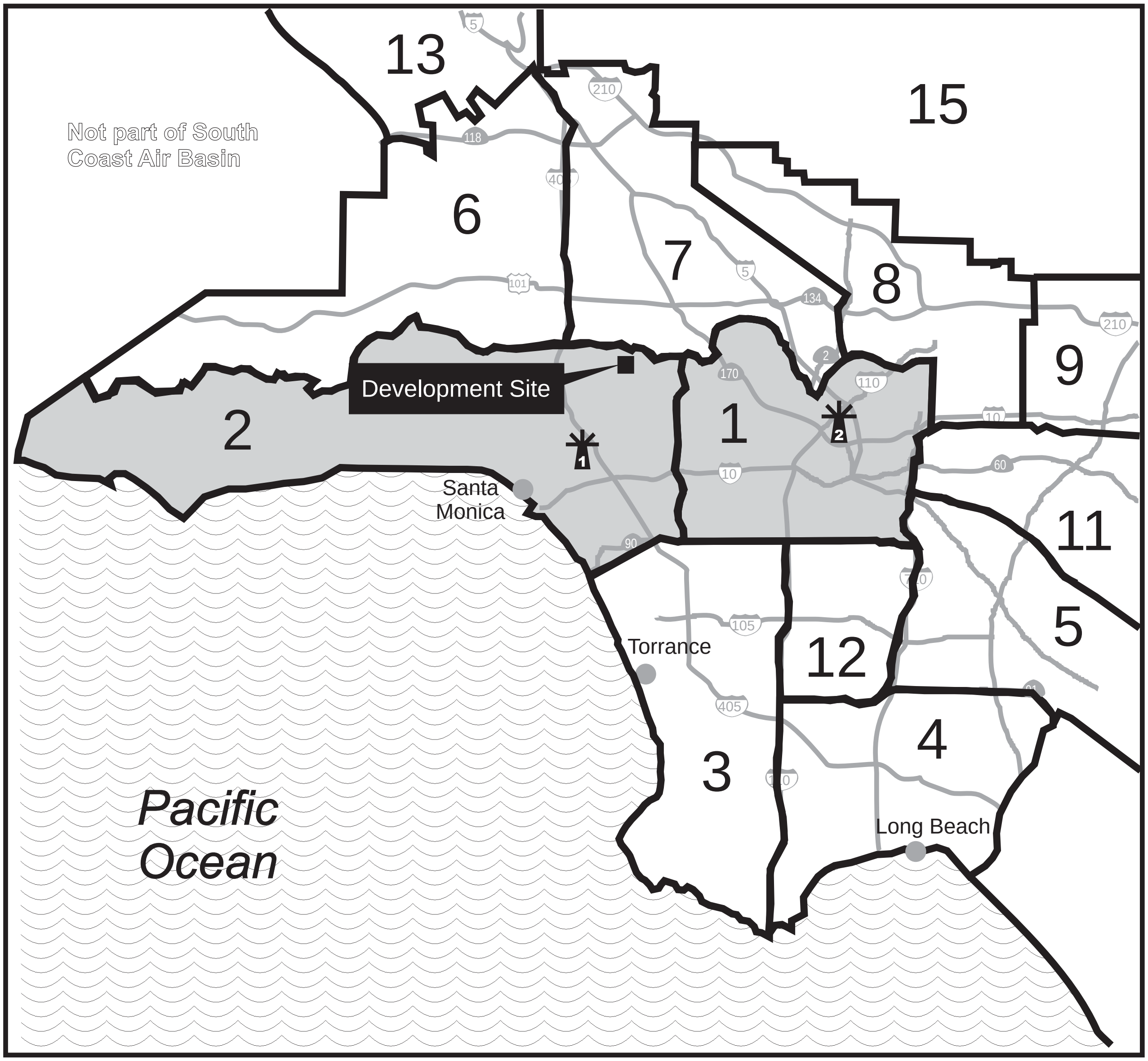
2 Western Regional Climate Center, Historical Climate Information website, *http://www.wrcc.dri.edu*, accessed ~~October 22, 2012~~ August 25, 2015.

3 *Ibid*.



LEGEND:

West Los Angeles - VA Hospital Monitoring Station

Los Angeles - North Main Street Monitoring Station

Air Monitoring Areas in Los Angeles County:

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley (not shown)
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
15. San Gabriel Mountains

APPROX. SCALE 0 4.5 9.0 MILES N

SOURCE: South Coast Air Quality Management District Air Monitoring Areas Map, 1999

Harvard-Westlake School Parking Structure

Figure 3.2-1

Air Monitoring Areas

Table 3.2-1 shows pollutant levels, the State and federal standards, and the number of exceedances recorded at the West Los Angeles – VA Hospital and Los Angeles – North Main Street Monitoring Stations.

TABLE 3.2-1: 2012-2014 AMBIENT AIR QUALITY DATA

Pollutant	Pollutant Concentration & Standards	~~2009~~ 2012	~~2010~~ 2013	~~2011~~ 2014
Ozone (O_3)	Maximum 1-hr Concentration (ppm)	0.093 ~~0.12~~	0.088 ~~0.10~~	0.116 ~~0.10~~
	Days > 0.09 ppm (State 1-hr standard)	0 ~~6~~	0 ~~2~~	1 ~~2~~
	Maximum 8-hr Concentration (ppm)	0.074 ~~0.10~~	0.076 ~~0.08~~	0.095 ~~0.07~~
	Days > 0.07 ppm (State 8-hr standard)	1 ~~5~~	1 ~~3~~	6 ~~0~~
	Days > 0.075 ppm (National 8-hr standard)	0 ~~3~~	0 ~~1~~	4 ~~0~~
Carbon Monoxide (CO)	Maximum 1-hr concentration (ppm)	n/a ~~2~~	n/a ~~2~~	3 ~~n/a~~
	Days > 20 ppm (State1-hr standard)	n/a ~~0~~	n/a ~~0~~	0 ~~n/a~~
	Days > 35 ppm (National 1-hr standard)	n/a ~~0~~	n/a ~~0~~	0 ~~n/a~~
	Maximum 8-hr concentration (ppm)	1.15 ~~1.5~~	2 ~~1.4~~	2 ~~1.7~~
	Days > 9.0 ppm (State 8-hr standard)	0	0	0
	Days > 9 ppm (National 8-hr standard)	0	0	0
Nitrogen Dioxide (NO_2)	Maximum 1-hr Concentration (ppm)	0.0613 ~~0.08~~	0.0512 ~~0.07~~	0.0639 ~~0.08~~
	Days > 0.18 ppm (State 1-hr standard)	0	0	0
	Days > 0.100 ppm (National 1-hr standard)	0 ~~n/a~~	0 ~~n/a~~	0 ~~n/a~~
Respirable Particulate Matter (PM_{10})	Maximum 24-hr concentration (µg/m^3)	90.9 ~~70~~	74.5 ~~41~~	86.8 ~~53~~
	Days > 50 µg/m^3 (State 24-hr standard)	43 ~~4~~	20 ~~0~~	38 ~~1~~
	Days > 150 µg/m^3 (National 24-hr standard)	0	0	0
Fine Particulate Matter ($PM_{2.5}$)	Maximum 24-hr concentration (µg/m^3)	79 ~~64~~	54.8 ~~39~~	65 ~~49~~
	Exceed State Standard (12 µg/m^3)	Yes	Yes	Yes
	Days > 35 µg/m^3 (National 24-hr standard)	4 ~~7~~	1 ~~5~~	6 ~~8~~
Sulfur Dioxide (SO_2)	Maximum 24-hr Concentration (ppm)	n/a ~~0.002~~	n/a ~~0.002~~	n/a ~~0.002~~
	Days > 0.04 ppm (State 24-hr standard)	n/a ~~0~~	n/a ~~0~~	n/a ~~0~~
	Days > 0.14 ppm (National 24-hr standard)	n/a ~~0~~	n/a ~~0~~	n/a ~~0~~

'n/a' = not available

SOURCE: CARB, Air Quality Data Statistics, *Top 4 Summary*, http://www.arb.ca.gov/adam/topfour/topfour1.php, accessed August 24, 2015 ~~October 22, 2012~~.

2012-2014 CO pollutant concentration data was obtained from SCAQMD, Historical Data by Year, available at http://www.aqmd.gov/smog/historicaldata.htm, accessed August 24, 2015 ~~October 22, 2012~~.

As **Table 3.2-1** indicates, criteria pollutants CO~~,~~ and NO_2 ~~, and SO_2~~ did not exceed the State and Federal standards from ~~2009~~ 2012 to ~~2011~~ 2014. However, the one-hour State standard for O_3 was exceeded one time ~~two to six times~~ during this period. The eight-hour State standard for O_3 was exceeded ~~zero~~ one to ~~five~~ six times while the eight-hour federal standard for O_3 was exceeded ~~zero to three~~ 0 to 4 times. The 24-hour State standard for PM_{10} was exceeded 20 ~~zero~~ to 43 ~~four~~ times during this period and the annual State standard for $PM_{2.5}$ was also exceeded each year from ~~2009~~ 2012 to ~~2011~~ 2014. The 24-hour Federal standard for PM_{10} was not exceeded while the annual Federal $PM_{2.5}$ was exceeded ~~five~~ one to ~~eight times~~ six times between the years ~~2009~~ 2012 to ~~2011~~ 2014.

Greenhouse Gas Emissions

The primary effect of rising global concentrations of atmospheric GHG levels is a rise in the average global temperature of approximately 0.2 degrees Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur given the expected rise in global atmospheric GHG concentrations from innumerable sources of GHG emissions worldwide, which would induce further changes in the global climate system during the current century.[4] Adverse impacts from global climate change worldwide and in California include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures;[5]

- Rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets;[6]

- Changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones;[7]

- Declining Sierra Mountains snowpack levels, which account for approximately half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years;[8]

- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 to 85 percent (depending on the future temperature scenario) in high O_3 areas located in the Southern California area and the San Joaquin Valley by the end of the 21st Century;[9] and

- Increasing the potential for erosion of California's coastlines and seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.[10]

- Scientific understanding of the fundamental processes responsible for global climate change has improved over the past decade. However, there remain significant scientific uncertainties, for example, in predictions of local effects of climate change, occurrence of extreme weather events, and effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the climate system, the uncertainty surrounding the implications of climate change may never be completely eliminated. Because of these uncertainties, there continues to be significant debate as to the extent to which increased concentrations of GHGs have caused or will cause climate change, and with respect to the appropriate actions to limit and/or respond to climate

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4 USEPA, Draft Endangerment Finding, 74 Fed. Reg. 18886, 18904, April 24, 2009.
5 *Ibid*.
6 Intergovernmental Panel on Climate Change, *Climate Change 2007*.
7 *Ibid*.
8 Cal/EPA, Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, 2006.
9 *Ibid*.
10 *Ibid*.

change. In addition, it may not be possible to link specific development projects to future specific climate change impacts, though estimating project-specific impacts is possible.

- California is the fifteenth largest emitter of GHG on the planet, representing approximately two percent of the worldwide emissions.[11] **Table 3.2-2** shows the California GHG emissions inventory for years 2000 to 2009. Statewide GHG emissions slightly decreased in 2009 due to a noticeable drop in on-road transportation, electricity generation, and industrial emissions.

- The transportation sector – largely the cars and trucks that move people and goods – is the largest contributor with 38 percent of the State's total GHG emissions in 2009. On-road emissions (from passenger vehicles and heavy duty trucks) constitute 93 percent of the transportation sector total emissions. Of the on-road vehicles, light duty passenger vehicles accounted for approximately 74 percent of the total sector emissions in 2009 GHG emissions. Transportation emissions showed a decline from 187 million metric tons of CO_2e in 2007 to 173 million metric tons of CO_2e in 2009.

TABLE 3.2-2: CALIFORNIA GREENHOUSE GAS EMISSIONS INVENTORY

	CO_2e Emissions (Million Metric Tons)									
Sector	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Transportation	172	175	181	179	183	186	187	187	178	173
Electric Power (In-State)	60	64	51	49	50	46	51	55	55	56
Electric Power (Imports)	46	59	59	65	66	63	55	60	66	48
Commercial and Residential	43	41	43	41	43	41	42	42	42	43
Industrial	97	93	94	92	94	93	92	90	87	81
Recycling and Waste	7	7	7	7	7	7	7	7	7	7
Agriculture	29	29	32	31	32	33	34	33	33	32
Forest Net Emissions	(4.5)	(4.3)	(4.2)	(4.2)	(4.2)	(4.0)	(3.9)	(3.9)	(3.8)	(3.8)
Emissions Total	**459**	**475**	**475**	**472**	**484**	**479**	**478**	**485**	**481**	**453**

SOURCE: CARB, *California Greenhouse Gas Inventory 2000-2009*, December 2011.

- The electricity sector is the next largest contributor at approximately 23 percent of the Statewide GHG emissions. This sector includes power plants and cogeneration facilities that generate electricity for on-site use and for sale to the power grid. In 2009, this sector emitted approximately 105 million metric ton of CO_2e. Emissions from imported electricity generation from specified imports, unspecified imports, and transmission and distribution accounts for 68, 31, and less than 1 percent, respectively. In-State electricity generation includes combined heat and power (CHP) commercial, CHP industrial, merchant owned, transmission and distribution, and utility owned. The percent contributions from CHP commercial is approximately 2, CHP industrial is approximately 30, merchant owned is approximately 57, transmission and distribution is approximately 1, and utility owned is approximately 18. Emissions from natural gas accounts for 87 percent of in-State GHG emissions associated with electricity generation.

[11] CARB, *Climate Change Scoping Plan*, December 2008.

- The industrial sector is the third largest contributor to the Statewide GHG emissions. California's industrial sector includes industrial CHP useful heat, landfills, manufacturing, mining, oil and gas extraction, petroleum refining, petroleum marketing, pipelines, wastewater treatment, and other large industrial sources. Of these emitters, petroleum refining, manufacturing accounts for 32, oil extraction accounts for 25, gas extraction accounts for 15, CHP accounts for 12, and landfills accounts for 8 percent.

- The sector termed recycling and waste management is a unique system, encompassing not just emissions from waste facilities but also the emissions associated with the production, distribution and disposal of products throughout the economy.

- Although high global warming potential gases (e.g., PFCs, HFCs, and SF6) are a small contributor to historic GHG emissions, levels of these gases are projected to increase sharply over the next several decades making them a significant source by 2020. These gases are used in growing industries such as semiconductor manufacturing.

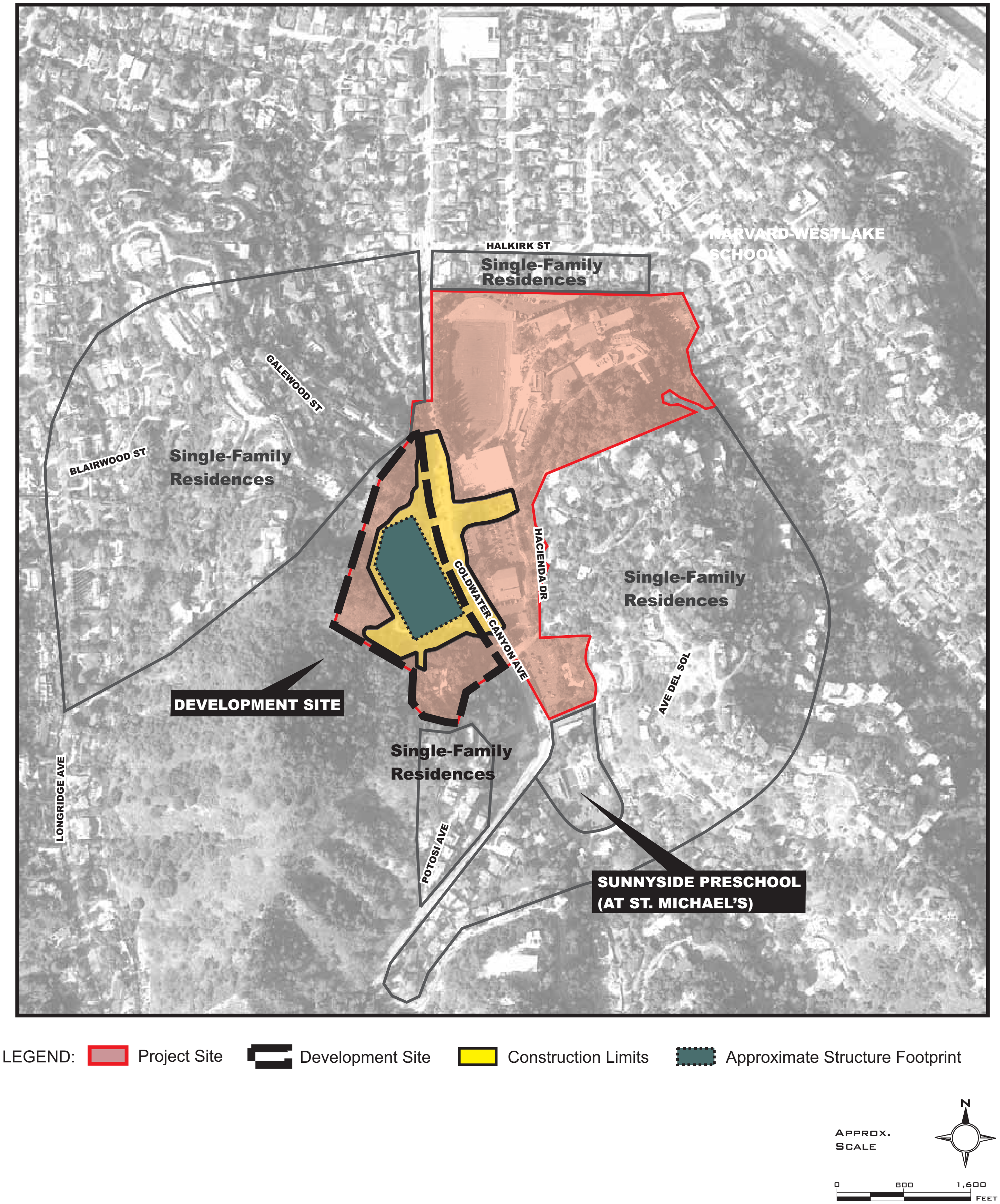
- The forest sector GHG inventory includes CO_2 uptake and GHG emissions from wild and prescribed fires, the decomposition and combustion of residues from harvest and conversion/development, and wood products decomposition. The forest sector is unique in that forests both emit GHGs and absorb CO_2 through carbon sequestration. While the current inventory shows forests absorb 3.8 million metric tons of CO_2e, carbon sequestration has declined since 2000 due to losses of forest area and emission increases from decomposing wood products consumed in the State. For this reason, the 2020 projection assumes no net emissions from forests.

- The agricultural GHG emissions shown are largely methane emissions from livestock, both from the animals and their waste. Emissions of GHG from fertilizer application are also important contributors from the agricultural sector. Opportunities to sequester CO_2 in the agricultural sector may also exist; however, additional research is needed to identify and quantify potential sequestration benefits.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. The California Air Resources Board (CARB) has identified the following typical groups who are most likely to be affected by air pollution: children under 14, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases.

According to the SCAQMD, sensitive receptors include residences, schools, parks, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, hospitals, convalescent centers, and retirement homes. As shown in **Figure 3.2-2**, sensitive receptors near the Project Site include single-family residences, Harvard-Westlake School, and St. Michael's Church (which includes the Sunnyside Preschool). These sensitive receptors represent the nearest sensitive receptors with the potential to be impacted by air emissions. Additional sensitive receptors are located in the surrounding community and may be impacted by air emissions.



SOURCE: TAHA and Google Earth, 2015.

Harvard-Westlake School Parking Structure

Figure 3.2-2

Air Quality Sensitive Receptor Locations

REGULATORY FRAMEWORK

Federal

The Federal Clean Air Act (CAA) governs air quality in the United States. The United States Environmental Protection Agency (USEPA) is responsible for enforcing the CAA. USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). NAAQS are required under the 1977 CAA and subsequent amendments. USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. USEPA has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet stricter emission standards established by CARB.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO_2, O_3, $PM_{2.5}$, PM_{10}, SO_2, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance (previously nonattainment and currently attainment) for each criteria pollutant based on whether the NAAQS have been achieved. The Federal standards are summarized in **Table 3.2-3**. The USEPA has classified the South Coast Air Basin as maintenance for CO, PM_{10}, and NO_2 and nonattainment for O_3~~,~~ and $PM_{2.5}$~~, PM_{10}, and Pb.~~

State

In addition to being subject to the requirements of CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). In California, the CCAA is administered by the California Air Resources Board (CARB) at the State level and by the air quality management districts and air pollution control districts at the regional and local levels. The CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for meeting the State requirements of the CAA, administering the CCAA, and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The State standards are summarized in **Table 3.2-3**. The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard and are not used as a basis for designating areas as nonattainment. Under the CCAA, the Los Angeles County portion of the Basin is designated as a nonattainment area for O_3, $PM_{2.5}$, PM_{10}, and Pb.[12]

[12] CARB, Area Designation Maps website, *http://www.arb.ca.gov/desig/adm/adm.htm*, ~~October 15, 2012~~ September 1, 2015.

TABLE 3.2-3: STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	Averaging Period	California		Federal	
		Standards	**Attainment Status**	**Standards**	**Attainment Status**
Ozone (O_3)	1-hour	0.09 ppm (180 µg/m^3)	Nonattainment	--	--
	8-hour	0.070 ppm (137 µg/m^3)	n/a	0.075 ppm (147 µg/m^3)	Nonattainment
Respirable Particulate Matter (PM_{10})	24-hour	50 µg/m^3	Nonattainment	150 µg/m^3	~~Nonattainment~~ Maintenance
	Annual Arithmetic Mean	20 µg/m^3	Nonattainment	--	--
Fine Particulate Matter ($PM_{2.5}$)	24-hour	--	--	35 µg/m^3	Nonattainment
	Annual Arithmetic Mean	12 µg/m^3	Nonattainment	~~15~~12.0 µg/m^3	Nonattainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m^3)	Attainment	9 ppm (10 mg/m^3)	~~Unclassified~~ Maintenance
	1-hour	20 ppm (23 mg/m^3)	Attainment	35 ppm (40 mg/m^3)	~~Unclassified~~ Maintenance
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	Attainment	53 ppb (100 µg/m^3)	~~Unclassified~~ Maintenance
	1-hour	0.18 ppm (338 µg/m^3)	Attainment	100 ppb (190 µg/m^3)	n/a
Sulfur Dioxide (SO_2)	24-hour	0.04 ppm (105 µg/m^3)	Attainment	--	--
	3-hour	--	--	--	--
	1-hour	0.25 ppm(655 µg/m^3)	Attainment	75 ppb (196 µg/m^3)	Attainment
Lead (Pb)	30-day average	1.5 µg/m^3	Nonattainment	--	--
	Calendar Quarter	--	--	0.15 µg/m^3	~~Nonattainment~~ Attainment
Visibility Reducing Particles	8-hour	10 miles	Unclassified	No National Standards	
Sulfates	24-hour	25	Attainment		
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	Unclassified		
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	Unclassified		

n/a = not available

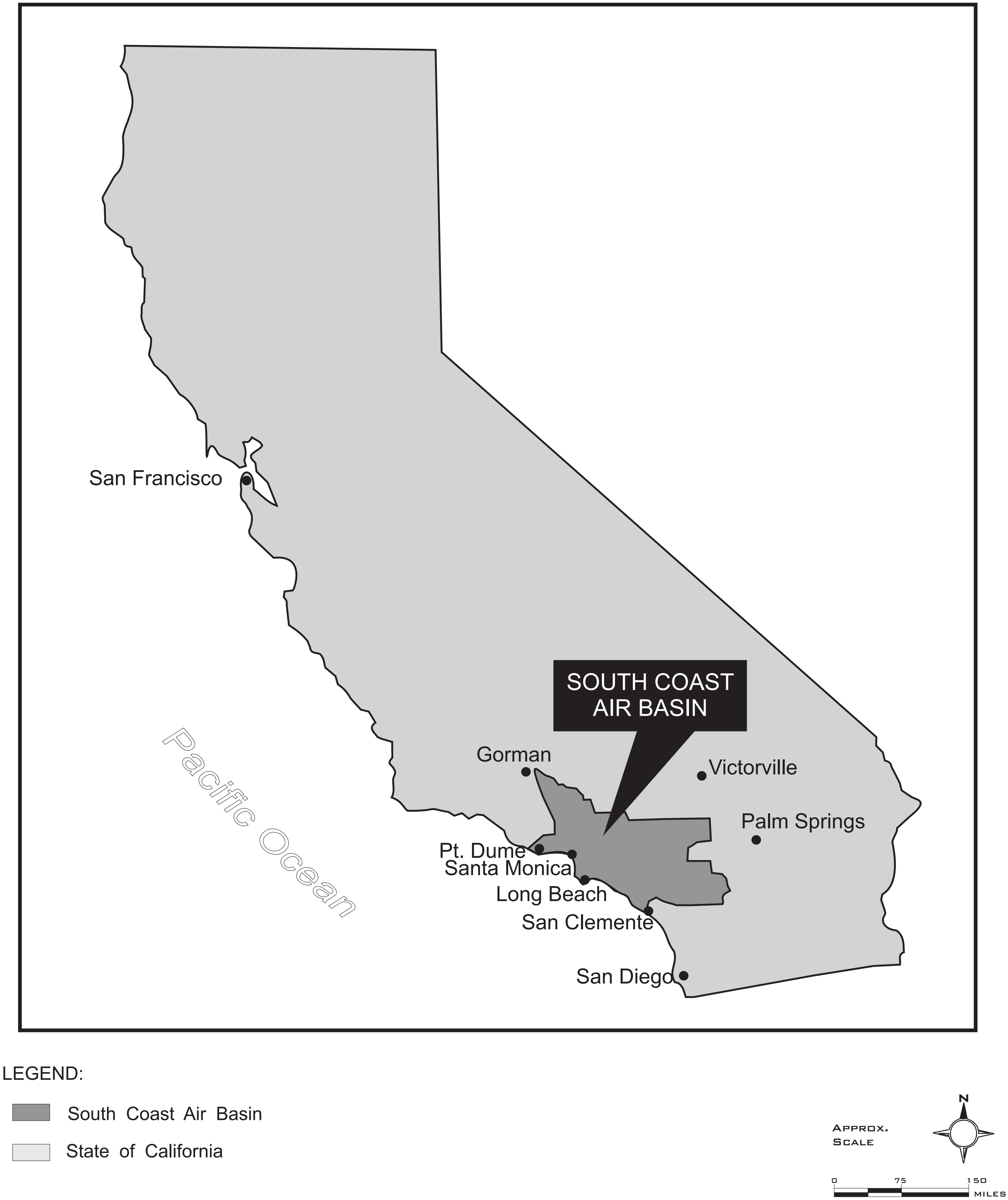
SOURCE: CARB, *Ambient Air Quality Standards*, and *Attainment Status*, June ~~7, 2012~~4, 2013.

Local

South Coast Air Quality Management District. The 1977 Lewis Air Quality Management Act (Lewis Act) created the SCAQMD to coordinate air quality planning efforts throughout Southern California. ~~This~~ The Lewis Act merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in Southern California. Under the Lewis Act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the region. Specifically, the SCAQMD is responsible for monitoring air quality, as well as planning, implementing, and enforcing programs designed to attain and maintain State and Federal ambient air quality standards in the district. Programs that were developed include air quality rules and regulations that regulate stationary sources, area sources, point sources, and certain mobile source emissions. The SCAQMD is also responsible for establishing stationary source permitting requirements and for ensuring that new, modified, or relocated stationary sources do not create net emission increases.

The SCAQMD has jurisdiction over an area of 10,743 square miles, consisting of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino counties; and the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin. The Basin is a subregion of the SCAQMD and covers an area of 6,745 square miles. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Basin is bounded by the Pacific Ocean to the west; the San Gabriel, San Bernardino and San Jacinto Mountains to the north and east; and the San Diego County line to the south (**Figure 3.2-3**).

Air Quality Management Plan. All areas designated as nonattainment under the CCAA are required to prepare plans showing how the area would meet the State air quality standards by its attainment dates. The Air Quality Management Plan (AQMP) is the SCAQMD plan for improving regional air quality. It addresses CAA and CCAA requirements and demonstrates attainment with State and federal ambient air quality standards. The AQMP is prepared by SCAQMD and the Southern California Association of Governments (SCAG). The AQMP provides policies and control measures that reduce emissions to attain both State and federal ambient air quality standards by their applicable deadlines. Environmental review of individual projects within the Basin must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded. The environmental review must also demonstrate that individual projects would not increase the number or severity of existing air quality violations. ~~The Governing Board of the SCAQMD adopted the most recent AQMP on June 1, 2007. The SCAQMD is currently developing the 2012 AQMP to continue the progression toward clean air and compliance with State and federal requirements. It includes a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on- and off-road mobile sources and area sources. The Draft 2012 AQMP proposes attainment demonstration of the federal 24-hour~~ ~~$PM_{2.5}$~~ ~~standard by 2014 in the Basin through adoption of all feasible measures while incorporating current scientific information and meteorological air quality models. It also updates the USEPA approved 8-hour~~ ~~O_3~~ ~~control plan with new commitments for short-term~~ ~~NO_X~~ ~~and VOC reductions. The Draft 2012 AQMP also addresses several State and federal planning requirements. This Draft 2012 AQMP builds upon the approach taken in the 2007 AQMP for the attainment of federal PM and~~ ~~O_3~~ ~~standards, and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile~~



SOURCE: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998

Harvard-Westlake School Parking Structure

Figure 3.2-3

South Coast Air Basin

~~sources, to meet all federal criteria pollutant standards within the timeframes allowed under the CAA.~~

The 2012 AQMP was adopted in December 2012 and continues the progression toward clean air and compliance with State and Federal requirements. It includes a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on- and off-road mobile sources and area sources. The 2012 AQMP includes demonstration of attainment of the Federal 24-hour $PM_{2.5}$ standard by 2014 in the Basin through adoption of all feasible measures while incorporating current scientific information and meteorological air quality models. It also updates the USEPA approved 8-hour O_3 control plan with new commitments for short-term NO_X and VOC reductions. The 2012 AQMP also addresses several State and Federal planning requirements. The 2012 AQMP builds upon the approach taken in the 2007 AQMP, for the attainment of Federal PM and O_3 standards, and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all Federal criteria pollutant standards within the timeframes allowed under the CAA.

Toxic Air Contaminants. The SCAQMD has a long and successful history of reducing air toxics and criteria emissions in the South Coast Air Basin (Basin). SCAQMD has an extensive control program, including traditional and innovative rules and policies. These policies can be viewed in the SCAQMD's Air Toxics Control Plan for the Next Ten Years (March 2000). To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study IV (MATES-IV), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which the SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-IV found that the cancer risk in the region from carcinogenic air pollutants ranges from about 320 to 480 in a million. About 90 percent of the risk is attributed to emissions associated with mobile sources, with the remainder attributed to toxics emitted from stationary sources, which include large industrial operations, such as refineries and metal processing facilities, as well as smaller businesses such as gas stations and chrome plating. The results indicate that diesel PM is the major contributor to air toxics risk, accounting on average for about 68 percent of the total risk. ~~To date, the most comprehensive study on air toxics in the Basin is the Multiple Air Toxics Exposure Study (MATES-III), conducted by the SCAQMD. The monitoring program measured more than 30 air pollutants, including both gases and particulates. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. MATES-III found that the cancer risk in the region from carcinogenic air pollutants ranges from approximately870 in a million to 1,400 in a million, with an average regional risk of approximately 1,200 in a million.~~

Global Climate Change

In response to growing scientific and political concern with global climate change, a series of laws have been enacted to reduce emissions of GHGs into the atmosphere. Applicable regulations are provided below.

Federal

Supreme Court Ruling. The U.S. Supreme Court ruled in *Massachusetts v. Environmental Protection Agency, 127 S. Ct. 1438 (2007)*, that CO_2 and other GHGs are pollutants under the

CAA, which the USEPA must regulate if it determines they pose an endangerment to public health or welfare. On December 7, 2009, the USEPA Administrator made two distinct findings: (1) the current and projected concentrations of the six key GHGs in the atmosphere (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) threatens the public health and welfare of current and future generations; and (2) the combined emissions of these GHGs from motor vehicle engines contribute to GHG pollution which threatens public health and welfare.

The ruling authorized the USEPA to set emission standards under the CAA for GHGs emitted by new and existing industrial sources. On August 3, 2015, the USEPA announced the Clean Power Plan. The Clean Power Plan reflects each state's energy mix through standards for power plants, and customized goals for states to cut GHG emissions.

State

California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Title 24, Part 6 of the California Code of Regulations, commonly referred to as "Title 24," provides the energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The goal of Title 24 energy standards is the reduction of energy use. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.[13] On May 31, 2012, the California Energy Commission adopted the 2013 Building and Energy Efficiency Standards. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

Executive Order S-3-05. On June 1, 2005, Executive Order (E.O.) S-3-05 set the following GHG emission reduction targets: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels. The Executive Order establishes State GHG emission targets of 1990 levels by 2020 (the same as AB 32) and 80 percent below 1990 levels by 2050. It calls for the Secretary of California Environmental Protection Agency (Cal/EPA) to be responsible for coordination of State agencies and progress reporting. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major "decarbonization" of electricity supplies and fuels, and major improvements in energy efficiency.

In response to the E.O., the Secretary of the Cal/EPA created the Climate Action Team (CAT). California's CAT originated as a coordinating council organized by the Secretary for Environmental Protection. It included the Secretaries of the Natural Resources Agency, and the Department of Food and Agriculture, and the Chairs of the Air Resources Board, Energy Commission, and Public Utilities Commission. The original council was an informal collaboration between the agencies to develop potential mechanisms for reductions in GHG emissions in the State. The council was given formal recognition in E.O. S-3-05 and became the CAT.

[13] The CEC, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, *Title 24, Part 6, of the California Code of Regulations*, http://www.energy.ca.gov/title24.

The original mandate for the CAT was to develop proposed measures to meet the emission reduction targets set forth in the executive order. The CAT has since expanded and currently has members from 18 State agencies and departments. The CAT also has ten working groups which coordinate policies among their members. The working groups and their major areas of focus are:

- Agriculture: Focusing on opportunities for agriculture to reduce GHG emissions through efficiency improvements and alternative energy projects, while adapting agricultural systems to climate change
- Biodiversity: Designing policies to protect species and natural habitats from the effects of climate change
- Energy: Reducing GHG emissions through extensive energy efficiency policies and renewable energy generation
- Forestry: Coupling GHG mitigation efforts with climate change adaptation related to forest preservation and resilience, waste to energy programs and forest offset protocols
- Land Use and Infrastructure: Linking land use and infrastructure planning to efforts to reduce GHG from vehicles and adaptation to changing climatic conditions
- Oceans and Coastal: Evaluating the effects sea level rise and changes in coastal storm patterns on human and natural systems in California
- Public Health: Evaluating the effects of GHG mitigation policies on public health and adapting public health systems to cope with changing climatic conditions
- Research: Coordinating research concerning impacts of and responses to climate change in California
- State Government: Evaluating and implementing strategies to reduce GHG emissions resulting from State government operations; an
- Water: Reducing GHG impacts associated with the State's water systems and exploring strategies to protect water distribution and flood protection infrastructure

The CAT is responsible for preparing reports that summarize the State's progress in reducing GHG emissions. The most recent CAT Report was published in December 2010. The CAT Report discusses mitigation and adaptation strategies, State research programs, policy development, and future efforts.

Assembly Bill 32. In September 2006, the State legislature passed the California Global Warming Solutions Act of 2006, also known as Assembly Bill (AB) 32, into law. AB 32 focuses on reducing GHG emissions in California, and requires the CARB to adopt rules and regulations that would achieve GHG emissions equivalent to Statewide levels in 1990 by 2020. To achieve this goal, AB 32 mandates that the CARB establish a quantified emissions cap, institute a schedule to meet the cap, implement regulations to reduce Statewide GHG emissions from stationary sources, and develop tracking, reporting, and enforcement mechanisms to ensure that reductions are achieved. Because the intent of AB 32 is to limit 2020 emissions to the equivalent of 1990, it is expected that the regulations would affect many existing sources of GHG emissions and not just new general development projects. Senate Bill (SB) 1368, a companion bill to AB 32, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emission performance standards for the generation of electricity. These standards will also apply to power that is generated outside of California and imported into the State.

AB 32 charges CARB with the responsibility to monitor and regulate sources of GHG emissions in order to reduce those emissions. On June 1, 2007, CARB adopted three discrete early action measures to reduce GHG emissions. These measures involved complying with a low carbon fuel standard, reducing refrigerant loss from motor vehicle air conditioning maintenance, and increasing methane capture from landfills. On October 25, 2007, CARB tripled the set of previously approved early action measures. The approved measures include improving truck efficiency (i.e., reducing aerodynamic drag), electrifying port equipment, reducing perfluorocarbons from the semiconductor industry, reducing propellants in consumer products, promoting proper tire inflation in vehicles, and reducing sulfur hexaflouride emission from the non-electricity sector. The CARB has determined that the total Statewide aggregated GHG 1990 emissions level and 2020 emissions limit is 427 million metric tons of CO_2e. The 2020 target reductions are currently estimated to be 174 million metric tons of CO_2e.

The CARB AB 32 Scoping Plan contains the main strategies to achieve the 2020 emissions cap. The Scoping Plan was developed by the CARB with input from the CAT and proposes a comprehensive set of actions designed to reduce overall carbon emissions in California, improve the environment, reduce oil dependency, diversify energy sources, and enhance public health while creating new jobs and improving the State economy. The GHG reduction strategies contained in the Scoping Plan include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. Key approaches for reducing greenhouse gas emissions to 1990 levels by 2020 include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a Statewide renewable electricity standard of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
- Adopting and implementing measures to reduce transportation sector emissions, including California's.

On May 22, 2014 CARB approved the First Update to the Climate Change Scoping Plan.[14] This update identifies the next steps for California's leadership on climate change. The first update to the initial AB 32 Scoping Plan describes progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. It also frames activities and issues facing the State as it develops an integrated framework for achieving both air quality and climate goals in California beyond 2020. Specifically, the update covers a range of topics, including the following:

- An update of the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants.
- A review of progress-to-date, including an update of Scoping Plan measures and other State, Federal, and local efforts to reduce GHG emissions in California.
- Potential technologically feasible and cost-effective actions to further reduce GHG emissions by 2020.
- Recommendations for establishing a mid-term emissions limit that aligns with the State's long-term goal of an emissions limit 80 percent below 1990 levels by 2050.
- Sector-specific discussions covering issues, technologies, needs, and ongoing State activities to significantly reduce emissions throughout California's economy through 2050.

[14] CARB, First Update to the Climate Change Scoping Plan, May 2014.

As discussed above, in December 2007, CARB approved a total statewide GHG 1990 emissions level and 2020 emissions limit of 427 million metric tons of CO_2e. As part of the update, CARB revised the 2020 statewide limit to 431 million metric tons of CO_2e, an approximately one percent increase from the original estimate. The 2020 business-as-usual (BAU) forecast in the update is 509 million metric tons of CO_2e. The State would need to reduce those emissions by 15 percent to meet the 431 million metric tons of CO_2e 2020 limit.

CARB has also developed the GHG mandatory reporting regulation, which required reporting beginning on January 1, 2008 pursuant to requirements of AB 32. The regulations require reporting for certain types of facilities that make up the bulk of the stationary source emissions in California. The regulation language identifies major facilities as those that generate more than 25,000 metric tons of CO_2 per year. Cement plants, oil refineries, electric generating facilities/providers, co-generation facilities, and hydrogen plants and other stationary combustion sources that emit more than 25,000 metric tons of CO_2 per year, make up 94 percent of the point source CO_2 emissions in California.

CEQA Guidelines Amendments. California Senate Bill (SB) 97 required the Governor's Office of Planning and Research (OPR) to develop CEQA Guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions." The CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. Noteworthy revisions to the CEQA Guidelines include:

- Lead agencies should quantify all relevant GHG emissions and consider the full range of project features that may increase or decrease GHG emissions as compared to the existing setting;
- Consistency with the CARB Scoping Plan is not a sufficient basis to determine that a project's GHG emissions would not be cumulatively considerable;
- A lead agency may appropriately look to thresholds developed by other public agencies, including the CARB's recommended CEQA thresholds;
- To qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project. General compliance with a plan, by itself, is not mitigation;
- The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis; and
- Given that impacts resulting from GHG emissions are cumulative, significant advantages may result from analyzing such impacts on a programmatic level. If analyzed properly, later projects may tier, incorporate by reference, or otherwise rely on the programmatic analysis.

CARB Guidance. The CARB has published draft guidance for setting interim GHG significance thresholds (October 24, 2008). The guidance is the first step toward developing the recommended Statewide interim thresholds of significance for GHG emissions that may be adopted by local agencies for their own use. The guidance does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that are responsible for substantial GHG emissions (i.e., industrial, residential, and commercial projects). The CARB believes that thresholds in these important sectors will advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the State.

California Air Pollution Control Officers Association (CAPCOA). CAPCOA is a non-profit association of air pollution control officers from all 35 local air quality agencies throughout California. CAPCOA promotes unity and efficiency in State air quality issues, and strives to encourage consistency in methods and practices of air pollution control. In 2008, CAPCOA published the CEQA and Climate Change White Paper.[15] This paper is intended to serve as a resource for reviewing GHG emissions from projects under CEQA. It considers the application of thresholds and offers approaches toward determining whether GHG emissions are significant. The paper also evaluates tools and methodologies for estimating impacts, and summarizes mitigation measures.

SCAQMD Guidance. The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the AQMP. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy.

SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. In its October 2008 document, the SCAQMD proposed the use of a percent emission reduction target (e.g., 30 percent) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 metric tons per year of CO_2e for stationary source/industrial projects where the SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds.

SCAQMD has convened a GHG Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing CEQA GHG Significance Thresholds. The working group is currently discussing multiple methodologies for determining project significance. These methodologies include categorical exemptions, consistency with regional GHG budgets in approved plans, a numerical threshold, performance standards, and emissions offsets. ~~The SCAQMD has convened a GHG CEQA Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that will provide input to the SCAQMD staff on developing GHG CEQA significance thresholds. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is the lead agency. The SCAQMD has not adopted guidance for CEQA projects under other lead agencies.~~

Green LA Action Plan. The City of Los Angeles has issued guidance promoting green building to reduce GHG emissions. The goal of the Green LA Action Plan ~~(Plan)~~ (Green LA Plan) is to reduce greenhouse gas emissions 35 percent below 1990 levels by 2030.[16] The Green LA Plan identifies objectives and actions designed to make the City a leader in confronting global climate change. The measures would reduce emissions directly from municipal facilities and operations, and create a framework to address GHG emissions. The Green LA Plan lists various focus areas in which to implement GHG reduction strategies. Focus areas listed in the Green LA Plan include energy, water, transportation, land use, waste, port, airport, and ensuring that changes to the local climate are incorporated into planning and building decisions. The Green LA Plan discusses City goals for each focus area, as follows:

[15] CAPCOA, CEQA and Climate Change White Paper, January 2008.
[16] City of Los Angeles, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, May 2007.

Energy

- Increase the generation of renewable energy;
- Encourage the use of mass transit;
- Develop sustainable construction guidelines;
- Increase energy efficiency; and
- Promote energy conservation.

Water

- Decrease per capita water use to reduce electricity demand associated with water pumping and treatment.

Transportation

- Power the City vehicle fleet with alternative fuels; and
- Promote alternative transportation (e.g., mass transit and rideshare).

Other Goals

- Create a more livable City through land use regulations;
- Increase recycling, reducing emissions generated by activity associated with the Port of Los Angeles and regional airports;
- Create more City parks, promoting the environmental economic sector; and
- Adapt planning and building policies to incorporate climate change policy.

The City adopted an ordinance to establish a green building program in April 2008. The ordinance establishes green building requirements for projects involving 50 or more dwelling units. The Green Building Program was established to reduce the use of natural resources, create healthier living environments and minimize the negative impacts of development on local, regional, and global ecosystems. The program addresses the following five areas:

- Site: location, site planning, landscaping, storm water management, construction and demolition recycling
- Water Efficiency: efficient fixtures, wastewater reuse, and efficient irrigation
- Energy and Atmosphere: energy efficiency, and clean/renewable energy
- Materials and Resources: materials reuse, efficient building systems, and use of recycled and rapidly renewable materials
- Indoor Environmental Quality: improved indoor air quality, increased natural lighting, and thermal comfort/control

THRESHOLDS OF SIGNIFICANCE

Criteria Pollutants

In accordance with Appendix G of the State CEQA Guidelines, ~~the~~ a ~~Proposed Project~~ proposed project would have a significant impact related to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Expose sensitive receptors to substantial pollutant concentrations; and/or

- Create objectionable odors affecting a substantial number of people.

The SCAQMD has developed specific CEQA significance thresholds to assess construction and operational air quality impacts from criteria pollutants.

Construction. A significant impact related to construction activity would occur if:

- A project would generate regional emissions that exceed the levels presented in **Table 3.2-4**;
- A project would generate localized daily *emissions* that exceed the Localized Emissions Screening Significance Thresholds presented in **Table 3.2-4**. If these daily *emissions* screening thresholds are exceeded, an impact would result if localized daily *concentrations* exceed:
  - o 10.4 $\mu g/m^3$ per day of PM_{10} and/or $PM_{2.5}$;
  - o 0.18 ppm per hour of NO_2;
  - o 20 ppm per hour of CO; and/or
  - o 9.0 ppm per eight hours of CO
- A project would generate TAC emissions that exceed a health risk of ten persons in one million;
- A project would create an odor nuisance; and/or
- A project would not be consistent with the short-term goals of the AQMP.

TABLE 3.2-4: SCAQMD DAILY CONSTRUCTION EMISSIONS THRESHOLDS

Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions Screening Thresholds (Pounds per Day)
Volatile Organic Compounds (VOC)	75	--
Nitrogen Oxides (NO_X)	100	~~103~~ 114
Carbon Monoxide (CO)	550	~~562~~ 786
Sulfur Oxides (SO_X)	150	--
Fine Particulates ($PM_{2.5}$)	55	~~3~~ 4
Particulates (PM_{10})	150	~~4~~ 7

/a/ Localized significance thresholds (LST) are available for 2- and 5-acre project sites. It is anticipated that 4.43 acres would be disturbed by off-road equipment. The localized significance threshold was rounded down to a 2-acre project site in order to provide a conservative analysis. The analysis utilized a 25 meter receptor distance, which is the shortest distance available in the LST methodology. ~~Assumed a 1.0-acre active Project Site and a 25-meter (82-foot) receptor distance.~~

SOURCE: SCAQMD, ~~2012~~ 2015.

Operations. A significant impact related to operational activity would occur if:

- A project would generate regional emissions that exceed the levels presented in **Table 3.2-5**;
- A project would cause CO concentrations at study intersections to violate the CAAQS for either the one- or eight-hour period. The CAAQS for the one- and eight-hour periods are 20 and 9.0 ppm, respectively;
- A project would generate significant emissions of TACs;
- A project would create an odor nuisance; and/or
- A project would not be consistent with the long-term goals of the AQMP.

TABLE 3.2-5: SCAQMD DAILY OPERATIONAL EMISSIONS THRESHOLDS	
Criteria Pollutant	**Pounds Per Day**
Volatile Organic Compounds (VOC)	55
Nitrogen Oxides (NO_X)	55
Carbon Monoxide (CO)	550
Sulfur Oxides (SO_X)	150
Fine Particulates ($PM_{2.5}$)	55
Particulates (PM_{10})	150
SOURCE: SCAQMD, ~~2012~~ 2015.	

Global Climate Change

In accordance with Appendix G of the State CEQA Guidelines, the Proposed Project would have a significant impact related to air quality if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The SCAQMD has not approved a GHG significance threshold for the development of non-SCAQMD and non-industrial projects. The significance threshold is based on the methodologies recommended by the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change White Paper* (January 2008). CAPCOA conducted an analysis of various approaches and significance thresholds, ranging from a zero threshold (all projects are cumulatively considerable) to a high of 40,000 to 50,000 metric tons of CO_2e per year. For example, an approach assuming a zero threshold and compliance with AB 32 2020 targets would require all discretionary projects to achieve a 33 percent reduction from projected “business-as-usual” emissions to be considered less than significant.

A zero threshold approach could be considered on the basis that climate change is a global phenomenon, and not controlling small source emissions would potentially neglect a major portion of the GHG inventory. However, the CEQA Guidelines also recognize that there may be a point where a project’s contribution, although above zero, would not be a considerable contribution to the cumulative impact (CEQA Guidelines, Section 15130 [a]). Therefore, a threshold of greater than zero is considered more appropriate for the analysis of GHG emissions under CEQA.

Another method would use a quantitative threshold of greater than 900 metric tons CO_2e per year based on a market capture approach that requires mitigation for greater than 90 percent of likely future discretionary development. Another potential threshold would be the 10,000 metric tons standard used by the Market Advisory Committee for inclusion in a GHG Cap and Trade System in California. The basic concepts for the various approaches suggested by CAPCOA are used herein to determine whether or not the Proposed Project’s GHG emissions are “cumulatively considerable.”

The most conservative (i.e., lowest) thresholds, suggested by CAPCOA, would not be appropriate for the Proposed Project given that it is located in a community that is highly urbanized. Similarly, the 900-ton threshold was also determined to be too conservative for general development in the South Coast Air Basin. Consequently, the threshold of 10,000 metric tons CO_2e is used as a quantitative benchmark for significance.

IMPACTS

Construction

Regional

Construction of the Proposed Project has the potential to create air quality impacts through the use of heavy-duty construction equipment and through vehicle trips generated by construction workers traveling to and from the Project Site. Fugitive dust emissions would primarily result from Project Site preparation (e.g., excavation) activities. NO_X emissions would primarily result from the use of construction equipment and haul trucks. The assessment of construction air quality impacts considers each of these potential sources. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions.

It is mandatory for all construction projects in the Basin to comply with SCAQMD Rule 403 for Fugitive Dust. Specific Rule 403 control requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, and maintaining effective cover over exposed areas. Compliance with Rule 403 would reduce $PM_{2.5}$ and PM_{10} emissions associated with construction activities by approximately 61 percent.

It is anticipated that construction activity would begin in June ~~2014~~ 2016 and occur over ~~25~~ 30 months. In broad terms defined for this air quality analysis, the ~~facility~~ Project would be built in ~~three~~ eight ~~general~~ phases. The phases include grading (234 days), soil nailing (234 days), shotcrete (234 days), foundation/structure (338 days), tower/ramp construction (130 days), sitework (156 days), streetwork (26 days), and pedestrian bridge (104 days). ~~Demolition activity would occur for one month, site preparation (excavation and grading) activity would occur for six months, and construction activity would occur over 18 months. These construction phases would not occur all sequentially and would not overlap.~~

There would be overlap between the following phases: grading/soil-nailing/shotcrete, foundation/structure/tower/ramp, foundation/structure/bridge, and street/site work. Grading would extend for about 9 months, and for the first 2 months of the Project would be the primary construction activity. Soil nailing and shotcrete activities would begin in the 3rd and 4th months, respectively, and each continue for a duration of 9 months. Following the construction of the retaining walls and site grading there would be approximately 13 months of foundations and structure work that would overlap with first about 5 months of work on the tower/ramp and then by about 4 months of work on the pedestrian bridge. Site work and street work would not overlap with other activities.

Key assumptions used in the air quality analysis include:

- 200 cubic yards of demolition debris
- ~~135,000~~ 137,000 cubic yards of excavated material, but to be conservative, the analysis assumed 140,000 cubic yards
- ~~100~~ 144 haul truck trips per day (i.e., ~~50~~ 72 inbound trips and ~~50~~ 72 outbound trips) for hauling of the excavated material; plus up to 8 delivery trucks per day (8 inbound and 8 outbound)
- ~~One acre of land excavated or graded per day (out of 3.3 acres total) based on two graders~~
- 3.5 acres of land disturbed per day during grading based on 2 scrapers, 1 dozer, and 1 blade
- ~~22~~ 100 concrete truck trips per day during foundation/structure phase (i.e., ~~11~~ 50 inbound trips and ~~11~~ 50 outbound trips)
- ~~10,869~~ 15,000 square feet of land to be paved

Emissions are estimated using the California Emissions Estimator Model (CalEEMod). CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. CalEEMod is based upon CARB-approved Off-Road and On-Road Mobile-Source Emission Factor models, and is designed to estimate construction and operational emissions for land use development projects. CalEEMod utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. The emissions factors and calculation methodologies contained in the CalEEMod program have been approved for use by SCAQMD.

~~There are multiple methodologies for estimating construction emissions. The California Emissions Estimator Model (CalEEMod) is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model was developed in collaboration with the air districts of California. However, CalEEMOD does not accurately assess fugitive dust emissions associated with excavation activity. In order to accurately characterize emissions associated with the Proposed Project, CalEEMOD was used in conjunction with emission formulas provided by USEPA in the AP-42 Compilation of Air Pollutant Emission Factors handbook.~~

Table 3.2-6 shows the unmitigated maximum daily emissions associated with construction activities. Unmitigated construction-related daily maximum regional ~~construction~~ emissions for NO_X would ~~not~~ exceed the SCAQMD regional significance threshold. Therefore, without mitigation, the Proposed Project would result in a ~~less-than-significant~~ significant impact related to regional construction emissions.

TABLE 3.2-6: REGIONAL CONSTRUCTION EMISSIONS – UNMITIGATED						
	Pounds Per Day					
~~Activity~~ Construction Phases	VOC	NO_X	CO	SO_X	$PM_{2.5}$ ~~/a/~~	PM_{10} ~~/a/~~
~~Demolition~~ Site Preparation	2	17	13	~~0~~ <1	2	3
~~Excavation~~ Grading	~~7~~ 8	~~69~~ 93	~~40~~ 50	~~0~~ <1	~~4~~ 6	~~7~~ 9
~~Grading~~ Soil Nailing	~~4~~ 3	~~30~~ 27	~~28~~ 24	~~0~~ <1	2	~~3~~ 2
~~Construction/Concrete Work~~ Shotcrete	3	~~20~~17	~~20~~ 15	~~0~~ <1	1	2
~~Paving~~ Foundation/Structure	~~4~~ 5	46	~~36~~ 37	~~0~~ <1	2	3
Bridge	1	7	4	<1	<1	1
Streetwork	3	28	20	<1	1	2
Sitework	1	9	7	<1	<1	1
Maximum Regional ~~Total~~ Emissions /a/	~~7~~ 14	~~49~~ 137	~~29~~ 89	<1	~~5~~ 9	~~9~~13
REGIONAL SIGNIFICANCE THRESHOLD	75	100	550	150	55	150
Exceed Threshold?	No	~~No~~ **Yes**	No	No	No	No

/a/ Maximum regional emissions are calculated considering the overlap between construction phases and occur during overlap of Grading, Soil Nailing, and Shotcrete phases.
~~/a/ Fugitive dust emissions were characterized using CalEEMod and USEPA's AP-42.~~
SOURCE: TAHA, Appendix C, Sub-Appendix C, ~~2012.~~ 2015.

Localized

Construction activity would generate pollutant emissions associated with equipment exhaust and fugitive dust in the vicinity of the Project. Localized impacts from daily emissions associated with construction were evaluated for sensitive receptor locations potentially impacted by the Proposed Project construction activities. Emissions for localized construction air quality analysis for NO_2, CO, $PM_{2.5}$, and PM_{10} were compiled using the Localized Significance Threshold (LST) methodology promulgated by the SCAQMD in *Sample Construction Scenarios for Projects Less than Five Acres in Size*. Localized emissions were calculated using similar methodology to the regional emission calculations. LSTs were developed based upon the size or total area of the emission source, the ambient air quality in each source receptor area, and the distance to the sensitive receptor. ~~The Proposed Project would utilize up to two graders simultaneously which would result in a disturbed area of one acre per day.~~

Table 3.2-7 shows the calculated construction emissions data and threshold values for each pollutant based on the SCAQMD LSTs. Particulate matter concentrations would exceed the SCAQMD LSTs thresholds during grading activity. LSTs are screening thresholds that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards.

TABLE 3.2-7: LOCALIZED CONSTRUCTION EMISSIONS				
	Pounds Per Day			
Construction Phases ~~Activity~~	**NO_X**	**CO**	**$PM_{2.5}$ ~~/a/~~**	**PM_{10} ~~/a/~~**
Site Preparation ~~Demolition~~	~~46~~ 17	~~25~~ 13	~~2~~ 2	~~2~~ 3
Grading and Retaining Walls ~~Excavation~~	~~24~~ 61	~~14~~ 31	~~4~~ 4	~~7~~ 6
Soil Nailing ~~Grading~~	~~38~~ 26	~~24~~ 21	~~5~~ 2	~~9~~ 2
Shotcrete ~~Construction/Concrete Work~~	16	~~10~~ 13	~~1~~ 1	~~1~~ 1
Foundation/Structure ~~Paving~~	~~14~~ 42	~~10~~ 29	~~1~~ 2	~~1~~ 2
Tower/Ramp ~~Maximum Localized Total~~	~~46~~ <1	~~25~~ <1	~~5~~ <1	~~9~~<1
Bridge	7	2	<1	<1
Street work	19	18	1	1
Site work	8	5	<1	<1
Maximum Localized Emissions **/a/**	**103**	**65**	**7**	**9**
LOCALIZED SIGNIFICANCE (SCREENING) THRESHOLD /b/	**~~103~~ 114**	**~~562~~ 786**	**~~3~~ 4**	**4 7**
Exceed Threshold?	No	No	**Yes**	**Yes**

/a/ According to the construction schedule, overlap between construction phases would occur during construction of 1) Grading, Soil Nailing, and Shotcrete, 2) Foundations/Structure, Tower/Ramp, and 3) Foundations/Structure, Bridge. Maximum localized emissions are calculated considering the overlap between construction phases and would occur during overlap of Grading, Soil Nailing, and Shotcrete phases. ~~Fugitive dust emissions were characterized using CalEEMod and USEPA's AP-42.~~

/b/ Localized significance thresholds (LST) are available for 2- and 5-acre project sites. It is anticipated that 4.43 acres would be disturbed by off-road equipment. The localized significance threshold was rounded down to a 2-acre project site. The analysis utilized a 25 meter receptor distance, which is the shortest distance available in the LST methodology.

~~/b/ Assumed a 1.0-acre active Project Site and a 25-meter (82-foot) receptor distance.~~

SOURCE: TAHA, Appendix C, Sub-Appendix D, ~~2012~~ 2015.

According to the SCAQMD, the lead agency may estimate the concentrations at sensitive receptors using the USEPA's preferred regulatory air dispersion model (i.e., AERMOD) where localized construction emissions exceed the screening-level look-up table values.

Since the screening analysis shown in **Table 3.2-7** shows the potential for daily PM_{10} and $PM_{2.5}$ *emissions* to exceed the screening thresholds, detailed air quality modeling was undertaken to identify whether localized *concentrations* at nearby sensitive receptors would exceed the *concentration* thresholds. The detailed analysis of concentrations (that result from construction emissions) at sensitive receptor locations were conducted using AERMOD. The model results indicate that maximum PM_{10} concentrations would be ~~17.2~~ 4.8 $\mu g/m^3$ at the ~~single-family residence~~ Harvard-Westlake School swimming pool ~~(owned by Harvard-Westlake)~~ located directly to the ~~south~~ east and 4.5 ~~14.4~~ $\mu g/m^3$ at the single-family residence located directly to the northwest. Therefore, the Project would result in a less than significant impact related to localized PM_{10} construction emissions since the concentrations are less than the threshold of 10.4 $\mu g/m^3$. ~~Overall, approximately six residences could be exposed to PM_{10} concentrations that exceed the PM_{10} significance threshold of 10.4 $\mu g/m^3$ during the excavation and grading phase of construction activity. Therefore, without mitigation, the Proposed Project would result in a short-term significant impact related to localized fugitive dust construction emissions at approximately six nearby residences.~~

The model results indicate that maximum $PM_{2.5}$ concentrations would be ~~8.6~~ 2.1 μg/m^3 at the ~~single-family residence~~ Harvard-Westlake School swimming pool ~~(owned by Harvard-Westlake)~~ located directly to the ~~south~~ east across Coldwater Canyon Avenue and ~~7.3~~ 2.0 μg/m^3 at the single-family residence located directly to the northwest. Maximum daily $PM_{2.5}$ concentrations would not exceed the $PM_{2.5}$ significance threshold of 10.4 μg/m^3. Therefore, the Project would result in a less-than-significant impact related to localized $PM_{2.5}$ construction emissions.

Pollutant concentrations were ~~An analysis was completed to assess~~ also assessed at ~~particulate matter concentrations at outdoor areas of the Harvard-Westlake Campus and~~ St. Michael's Church and the Sunnyside Preschool. The maximum PM_{10} concentration would be ~~6.2 4.8 μg/m^3 at the Harvard-Westlake Campus and 1.8~~ 1.3 μg/m^3 at St. Michael's Church and Sunnyside Preschool. Maximum ~~The maximum~~ $PM_{2.5}$ concentration would be ~~3.1 2.1 μg/m^3 at the Harvard-Westlake Campus and 0.86~~ 0.6 μg/m^3 at St. Michael's Church and Sunnyside Preschool. Based on the pollutant concentration model that incorporates meteorological conditions and topography, particulate matter concentrations would not exceed the significance thresholds of 10.4 μg/m^3 for $PM_{2.5}$ and PM_{10} at either the ~~Harvard-Westlake School or~~ St. Michael's Church or the Sunnyside Preschool.

The area of disturbance has increased when comparing the scenario analyzed in the Draft EIR to the RDEIR. However, the equipment emission factors have changed (2016 compared to 2008 emission factors), resulting in lower concentrations of emissions adjacent to the Project Site. In addition, the SCAQMD updated the meteorological data set that was used in the pollutant dispersion analysis. The new dispersion characteristics significantly changed the modeling results, which resulted in lower concentrations. As a result, the predicted concentrations for the Project no longer exceed the localized significance thresholds. The related impact that was discussed in the previously circulated DEIR is no longer relevant.

Toxic Air Contaminants and Community Health

The greatest potential for TAC emissions during construction would be diesel particulate emissions associated with heavy equipment operations. The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project. Thus, because the use of diesel engine construction equipment on Project ~~site~~ Site would be limited to ~~25~~ 30 months, exposure would occur approximately ~~three~~ four percent of the 70-year exposure period. Therefore, the Proposed Project would result in less-than-significant impacts related to construction TACs.

~~As previously discussed, the Proposed Project would result in a significant localized particulate matter (PM_{10}) impact at the approximately six adjacent residences. The majority of localized impacts related to PM_{10} emissions during excavation and grading activity would be related to fugitive dust emissions (up to 80 percent). Fugitive dust is not toxic but high concentrations can irritate the eyes, noise, and throat and lead to respiratory distress.~~

Odors

Potential sources that may emit odors during construction activities include equipment exhaust and asphalt paving. Odors from this source would be localized and generally confined to the immediate area surrounding the Project Site. The Proposed Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Therefore, the Proposed Project would result in less-than-significant impacts related to odors.

Consistency with the Air Quality Management Plan

The AQMP focuses on long-term sources of emissions. The only control strategy for construction activity related to modernizing the regional equipment fleet to reduce exhaust emissions. The AQMP states that equipment exhaust reduction will occur through compliance with USEPA exhaust standards and CARB emission reduction strategies. The Proposed Project would not interfere with implementation of these standards and strategies. Therefore, the Proposed Project would result in less-than-significant impacts related to consistency with the AQMP.

Operations

Regional

The Proposed Project consists of the construction of a Parking Structure with an auxiliary ~~athletic~~ practice field and a pedestrian bridge connecting the new Parking Structure to the main campus. No increase in student enrollment or faculty is proposed as part of the Project. The Proposed Project would not generate new vehicle trips to the study area and there would not be an associated increase in regional emissions. Therefore, the Proposed Project would result in a less-than-significant impact related to regional operational emissions.

Localized

Parking Structure Pollutant Concentrations. An analysis was completed to determine if passenger vehicle emissions in the Parking Structure would expose sensitive receptors to increased levels of pollution. Although unlikely to occur, a worst-case analysis was completed as if the Parking Structure would be fully occupied with 750 passenger vehicles during the AM Peak Hour. Three different emission rates were used to correspond to each parking level~~s~~ of the three-story Parking Structure. The emission rates for each level were determined based on the number of parking spaces provided and the distance and time required to travel from the Parking Structure entrance to the farthest parking space. The mobile source release height for each parking level was also incorporated in the analysis. Air quality sensitive receptors were located based on the distance from the Parking Structure to the sensitive receptors. **Table 3.2-8** show the maximum concentrations in the Project area according to the AERMOD dispersion analysis for sensitive receptors located within approximately 130 and 240 feet to the south and northwest of parking activities, respectively. The CAAQS would not be exceeded for mobile sources at the proposed Parking Structure. Therefore, the Proposed Project would result in less-than-significant impacts related to Parking Structure pollutant concentrations.

TABLE 3.2-8: 2016 LOCALIZED OPERATIONAL EMISSIONS – PARKING STRUCTURE POLLUTANT CONCENTRATIONS

Pollutant	Concentration at Nearest Sensitive Receptor				State Standard	Significant Impact?
	~~Athletic~~ Practice Field	Harvard Westlake Upper School Facility	Single-Family Residences Located to the South	Single-Family Residences Located to the Northwest		
$PM_{2.5}$ (Annual)	~~0.0~~ 0.31 $\mu g/m^3$	~~0.02~~ 0.03 $\mu g/m^3$	~~0.03~~ 0.07 $\mu g/m^3$	~~0.02~~ 0.05 $\mu g/m^3$	12 $\mu g/m^3$	No
PM_{10} (24-Hour)	~~0.0~~ 1.36 $\mu g/m^3$	~~0.09~~ 0.37 $\mu g/m^3$	~~0.19~~ 0.77 $\mu g/m^3$	~~0.17~~ 0.39 $\mu g/m^3$	50 $\mu g/m^3$	No
PM_{10} (Annual)	~~0.0~~ 0.47 $\mu g/m^3$	~~0.02~~ 0.07 $\mu g/m^3$	~~0.04~~ 0.18 $\mu g/m^3$	~~0.03~~ 0.12 $\mu g/m^3$	20 $\mu g/m^3$	No
NO_2 (1-Hour)	~~0.0~~ 0.001 ppm	0.001 ppm	~~0.003~~ <0.001 ppm	~~0.002~~ <0.001 ppm	0.18 ppm	No
CO (1-Hour)	~~0.0~~ 0.2 ppm	~~0.29~~ 0.26 ppm	~~0.58~~ 0.34 ppm	~~0.61~~ 0.29 ppm	20 ppm	No
CO (8-Hour)	~~0.0~~ <0.1 ppm	~~0.04~~ 0.03 ppm	~~0.07~~ 0.04 ppm	~~0.07~~ 0.03 ppm	9.0 ppm	No
SOURCE: TAHA, Appendix C, Sub-Appendix E, ~~2012~~ 2015.						

Bus Pollutant Concentrations. After Project implementation, the South Parking Lot would be utilized for school bus drop-off/pick-up and school bus turnaround. An analysis was completed to determine if on-road school bus and idling emissions at the South Parking Lot would expose sensitive receptors to increased levels of pollution.

Bus pollutant concentrations were determined based on the assumption that two buses would arrive at the South Parking Lot from the north (i.e., traveling southbound on Coldwater Canyon Avenue from the U.S. 101 Freeway) and six school buses would arrive at the South Parking Lot from the south (i.e., traveling northbound on Coldwater Canyon Avenue). In addition, it was assumed that eight school buses would idle for approximately 15 minutes at the South Parking Lot during drop-off/pick activities (as a conservative estimate since school bus drivers are required to turn off engines upon arrival and not to turn on until 30 seconds prior to departure). These assumptions would result in a worst-case analysis.

Table 3.2-9 shows the maximum concentrations in the Project Site area according to the AERMOD dispersion analysis. The CAAQS would not be exceeded for mobile sources at the South Parking Lot. Therefore, the Proposed Project would result in less-than-significant impacts related to bus pollutant concentrations.

TABLE 3.2-9: 2016 LOCALIZED OPERATIONAL EMISSIONS – SCHOOL BUS POLLUTANT CONCENTRATIONS						
	Concentration at Nearest Sensitive Receptor					
Pollutant	~~**Athletic**~~ **Practice Field**	**Harvard Westlake Upper School Facility**	**Single-Family Residences Located to the West**	**Single-Family Residences Located to the East**	**State Standard**	**Significant Impact?**
$PM_{2.5}$ (Annual)	≤0.001 $\mu g/m^3$	~~<0.002~~ <0.001 $\mu g/m^3$	~~<0.003~~ <0.001 $\mu g/m^3$	≤0.003 $\mu g/m^3$	12 $\mu g/m^3$	No
PM_{10} (24-Hour)	~~≤0.003~~ <0.001 $\mu g/m^3$	~~0.005~~ 0.003 $\mu g/m^3$	~~0.012~~ 0.001 $\mu g/m^3$	~~0.010~~ 0.003 $\mu g/m^3$	50 $\mu g/m^3$	No
PM_{10} (Annual)	≤0.001 $\mu g/m^3$	~~0.002~~ <0.001 $\mu g/m^3$	~~0.003~~ 0.002 $\mu g/m^3$	~~<0.003~~ <0.001 $\mu g/m^3$	20 $\mu g/m^3$	No
NO_2 (1-Hour)	~~≤0.0003~~ <0.001 ppm	~~<0.0004~~ <0.001 ppm	~~<0.0011~~ <0.001 ppm	~~<0.0011~~ <0.001 ppm	0.18 ppm	No
CO (1-Hour)	~~0.0007~~ 0.001 ppm	~~0.0005~~ -<0.001 ppm	~~0.0023~~ 0.005 ppm	~~0.0024~~ 0.001 ppm	20 ppm	No
CO (8-Hour)	~~≤0.0001~~ <0.001 ppm	~~<0.0001~~ <0.001 ppm	~~0.0003~~ 0.001 ppm	~~0.0028~~ <0.001 ppm	9.0 ppm	No
SOURCE: TAHA, Appendix C, Sub-Appendix E, ~~2012~~ 2015.						

Toxic Air Contaminants

The SCAQMD recommends that health risk assessments be conducted for substantial sources of diesel particulate emissions (e.g., truck stops) and has provided guidance for analyzing mobile source diesel emissions. SCAQMD does not typically require that health risks be assessed for construction activities because of the relatively brief periods of exposure. Operational activity would not generate truck trips or include any source of diesel emissions. Occasional use of a generator on-site may be necessary for emergency use, but emissions are anticipated to be periodic and less than significant. Therefore, the Proposed Project would result in less-than significant impacts related to toxic air contaminants.

Odors

According to the SCAQMD *CEQA* Air Quality Handbook, land uses and industrial operations that are associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies and fiberglass molding. The Proposed Project would not include any land use or activity that typically generates adverse odors. Therefore, the Proposed Project would result in less-than significant impacts related to odors.

Consistency with the Air Quality Management Plan

The ~~2007~~ 2012 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. The AQMP includes short-term control measures related to facility modernization, energy efficiency, good management practices, market incentives, and emissions growth management. The Proposed Project would not generate new vehicle trips to the study area and there would not be an associated increase in regional emissions. Operations of the Parking Structure and ~~athletic~~ practice field would not interfere with implementation of AQMP control measures. Therefore, the Proposed Project would result in less-than significant impacts related to consistency with the AQMP.

CUMULATIVE IMPACTS

Criteria Pollutants

A significant impact would occur if the Proposed Project resulted in a cumulative net increase in any criteria pollutant above threshold standards. The SCAQMD's approach for assessing cumulative air quality impacts is based on the AQMP forecasts of attainment of ambient air quality standards in accordance with the requirements of the federal and State Clean Air Acts. The SCQAMD has set forth significance thresholds designed to assistant in the attainment of ambient air quality standards. The Proposed Project would not result in a regional construction impact or any operational impacts. The Proposed Project would result in significant localized impact related to construction dust. However, localized emissions are only cumulative with related projects located within 500 meters of the Project Site.[17]

The DWP water main work along Coldwater Canyon Avenue~~, which~~ is the only related project within 500 meters of the Project Site. DWP indicates that construction of the Proposed Project would not overlap with construction on the trunk line (construction activities are already about ½ mile from the Development Site to the north and approximately 2 miles to the south). In addition, DWP has stated that construction plans have not been finalized for the water main work, and work is not anticipated in the near future in the vicinity of the Harvard-Westlake School. ~~is anticipated to be complete adjacent to the site before the start of construction.~~ Therefore, no related projects are anticipated within this distance. Therefore, the Proposed Project would not contribute to cumulative localized construction emissions.

Global Climate Change

The Proposed Project consists of the construction of a Parking Structure with an auxiliary ~~athletic~~ practice field and a pedestrian bridge connecting the new Parking Structure to the Harvard-Westlake School. No increase in student enrollment or faculty is proposed as part of the Project. The Proposed Project would not generate new vehicle trips to the study area and therefore would not be an associated increase in GHG emissions.

GHG emissions would be generated during construction activity and were estimated for equipment exhaust, truck trips, and worker commute trips using the same methodology as previously described for the regional emissions analysis. Based on SCAQMD guidance, construction emissions were amortized over a 30-year span. As shown in **Table 3.2-10**, estimated GHG emission would be ~~36~~ 115 metric tons per year. Estimated GHG emissions would be less than the 10,000 metric tons of CO_2e per year quantitative significance threshold. In addition, construction of the proposed Parking Structure would not interfere with any State or local GHG reduction plan.

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TABLE 3.2-10: ANNUAL GREENHOUSE GAS EMISSIONS	
Source	**Carbon Dioxide Equivalent (Metric Tons per Year)**
Construction Emissions Amortized	~~36~~ 85
General Electricity	30
Total GHG emissions	**115**
SIGNIFICANCE THRESHOLD	**10,000**
Exceed Threshold?	No
SOURCE:TAHA, Appendix C, Sub-Appendix F, ~~2012~~ 2015.	

PROJECT DESIGN FEATURE

The following Project Design Feature would ~~help address the significant PM_{10} impact on approximately six adjacent residential yards~~ reduce pollutant exposure at adjacent land uses. Daytime use of adjacent outdoor school areas would occur, but modeled concentrations ~~of PM_{10}~~ would not exceed the thresholds at the Harvard-Westlake School or St. Michael's Church (including the Sunnyside Preschool).

PDF-AQ-1: The majority of excavation and grading activity would occur during weekday daytime hours when most people are away from their home and not heavily utilizing residential yards.

REGULATORY COMPLIANCE MEASURE

RC-AQ-1: Project construction shall comply with SCAQMD Rule 403 that requires the following:

- Water or a stabilizing agent shall be applied to exposed surfaces at least three times per day to prevent generation of dust plumes.
- Construction contractor shall utilize at least one or more of the following measures at each vehicle egress from the Project Site to a paved public road in order to effectively reduce the migration of dust and dirt offsite:
  - Install a pad consisting of washed gravel maintained in clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long;
  - Pave the surface extending at least 100 feet and at least 20 feet wide;
  - Utilize a wheel shaker/wheel spreading device consisting of raised dividers at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages; or
  - Install a wheel washing system to remove bulk material from tires and vehicle undercarriages.
- All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
- Construction activity on unpaved surfaces shall be suspended when wind speed exceed 25 miles per hour (such as instantaneous gusts).
- Ground cover in disturbed areas shall be replaced as quickly as possible.

MITIGATION MEASURES

The following mitigation measures would reduce construction-related ~~localized~~ air quality emissions:

MM-AQ-1: The construction contractor shall use electricity from power poles rather than temporary diesel or gasoline generators.

MM-AQ-2: When reinforcing the hillside through soil nailing, the construction contractor shall minimize dust to the greatest extent feasible using available techniques including, but not limited to, the application of water to remove cuttings.

MM-AQ-3: The construction contractor shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.

MM-AQ-4: The construction contractor shall use alternative-fueled off-road equipment where possible.

MM-AQ-5: The construction contractor shall configure construction parking to eliminate interference with traffic operations on Coldwater Canyon Avenue.

MM-AQ-6: The construction contractor shall provide temporary traffic controls, such as a flag person, during all phases of construct to maintain smooth traffic flows.

MM-AQ-7: The construction contractor shall schedule construction activities that affect traffic flow on arterial system to off-peak hours.

MM-AQ-8: All construction equipment and delivery vehicles shall be turned off when not in use or prohibit idling in excess of five minutes. Haul trucks in particular that stage waiting to be called to remove dirt from the site shall not be allowed to idle while queuing.

MM-AQ-9: The construction contractor shall coordinate with the Project Site administrator for Harvard-Westlake School and the administrator for Sunnyside Preschool ~~shall coordinate with the construction contractor~~ to schedule construction activity that utilizes heavy equipment and generates fugitive dust to when student exposure would be minimized.

MM-AQ-10: The construction contractor shall ensure that diesel-powered construction equipment greater than 50 horsepower meets the USEPA Tier 3 emission standards, where available.

Impacts related to ~~regional emissions,~~ localized operational emissions, toxic air contaminant emissions, odors and consistency with the AQMP would be less than significant. No mitigation measures are required.

SIGNIFICANCE AFTER MITIGATION

Impacts related to ~~regional emissions,~~ localized operational emissions, toxic air contaminant emissions, odors and consistency with the AQMP would be less than significant.

Without mitigation, construction activity would result in NO_X emissions exceeding the SCAQMD threshold. **MM-AQ-10** requires USEPA Tier 3 emission controls for engines rated between 50 and 750 horsepower. Tier 3 emissions controls were phased-in between 2006 and 2008, and this equipment is readily available for use. The unmitigated emissions from CalEEMod were based on a combination of Tier 1 through Tier 3 emissions standards. Tier 3 emissions standards would reduce PM, CO, VOC, and NO_X emissions.

The only identified impact was related to NO_X regional construction emissions, and, as such, NO_X is the only pollutant assessed in the mitigated analysis. Implementation of **MM-AQ-10** would reduce maximum regional NO_X emissions from 137 to 76 pounds per day. Mitigated emissions would be less than the SCAQMD significance threshold of 100 pounds per day for NO_X. Therefore, with mitigation, the proposed project would result in a less-than-significant impact related to regional construction emissions.

~~Impacts related to localized construction emissions (PM_{10}) would be significant for sensitive receptors (six homes on the west side of Coldwater Canyon Avenue, adjacent to the site; one of which is owned by Harvard-Westlake). The majority of localized impacts related to PM_{10} emissions during grading and excavation activity would be related to fugitive dust emissions (up to 80 percent).~~

The Proposed Project would be required to implement SCAQMD Rule 403 (**RC-MM-AQ-1** above) to control fugitive dust emissions. Rule 403 requires intensive dust prevention control measures and represents the greatest degree that fugitive dust can be controlled at a construction site. Implementation of Rule 403 and Mitigation Measure **MM-AQ-2** would reduce fugitive dust emissions to the greatest extent feasible and localized PM_{10} and $PM_{2.5}$ emissions would be less than significant. ~~but would not reduce PM_{10} emissions to below the SCAQMD significance thresholds at the six homes adjacent to the Project Site. Therefore, the Proposed Project would result in a short-term significant and unavoidable impact related to localized PM_{10} construction emissions at six adjacent residences~~.

Although not identified as a significant impact, construction emissions could affect students utilizing recreational facilities at the Harvard-Westlake ~~school~~ School. Even though localized concentrations were determined to be below the thresholds, Mitigation Measure **MM-AQ-9** would ensure that the ~~school~~ Harvard-Westlake School coordinates with the construction contractor to keep student exposure, at Harvard-Westlake School and the Sunnyside Preschool, to construction pollutants at a minimum.

3.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources within the Project Site, potential environmental impacts, as well as recommended mitigation measures to reduce or avoid impacts to biological resources. Biological surveys were conducted on March 16 and 29, 2011 and March 18, 2015 and July 29, 2015 by Ty M. Garrison, Senior Biologist.

The information contained in this section is summarized from the following reports that are included in **Appendix D**:

- Biological Resources Technical Report, Harvard-Westlake Parking Structure, Land Design Consultants, August 2011 (**Appendix D.1 and D.1a**). The impacted acreages were subsequently updated in the text of the EIR section based on the biological mapping contained in this report and the City requirement that a 15-foot clear area be maintained atop retaining walls.
- Protected Tree Report, Land Design Consultants, June 2011 (**Appendix D.2B**).
- Comparison of Protected Tree Dispositions based on Revised 2013 Harvard-Westlake Parking Structure Project, Carlberg Associates, June 2013 (**Appendix D.2A**).
- Native Tree Report, Lisa Smith, Registered Consulting Arborist, November 19, 2015 (**Appendix D.3**)
- Biological Assessment Services, Update to Biological Resources Technical Report, Ty M. Garrison, September 17, 2015 (**Appendix D.4**)

EXISTING CONDITIONS

Regional

The Proposed Project Site is located in the foothills at the southeastern edge of the San Fernando Valley. The Santa Monica Mountains rise to the south, with Beverly Hills and the west Los Angeles basin beyond that. The Santa Monica Mountains stretch to the east and west of the site and the San Fernando Valley is just north of the property. The transmontane location of the Project Site is within the rain shadow Coast Range Mountains. The available, though infrequent, precipitation provides for a series of arid plant communities that show an interesting cross-section of both inland and Southern Coast Range biota.

The region experiences a Mediterranean climate characterized by hot, dry summers, and cool, mild winters, with precipitation occurring in the winter months. The area is within the climatic transition zone from the moister coastal region to the more arid inland regions of southern California. The transition zone is characterized by shift in species composition of the plant and animal communities from coastal species or races to those found in the inland valleys. Many plant and animal specimens collected in this transition region exhibit characteristics of both inland and coastal populations. Valley and coast live oak woodlands and savannas, riparian woodland, chaparral, coastal sage scrub, and grassland compose the natural biotic communities in the Project vicinity.

Plant Communities and Wildlife Habitats

Southern live oak/California walnut woodland is the only native plant community on the Development Site. Two nonnative communities consisting of ornamental landscape and ruderal comprise the remainder of the vegetative communities on the Development Site. The ornamental landscaping component is associated with the previous residences on the central/eastern portion of the Development Site. The nonnative ruderal component is associated with existing and past disturbances on the ~~site~~ Development Site. Additionally, there is a substantial disturbed area that is largely devoid of vegetation or vegetated by small stature and short-lived weeds that have arisen since the most recent land clearing activity.

TABLE 3.3-1: PLANT COMMUNITIES IN SURVEY AREA*

Southern live oak/southern walnut woodland	3.33 ~~2.97~~ ac*
Ruderal	0.34 ~~0.33~~ ac
Landscaped/disturbed	3.16 ~~2.92~~ ac

* ~~The biological survey area included 0.74 acres not within the Development Site (all but 0.01 acres is Southern oak/southern walnut woodland, 0.01 acres is landscaped/disturbed). The survey area included property south of the Development Site: the planned street (Hacienda Drive) immediately south of the Development Site and the four parcels owned by Harvard-Westlake located south of Hacienda Drive, although not the parcels recently acquired by Harvard-Westlake at 3680 Potosi Avenue.~~ The Development Site and survey area are the same and now encompasses Harvard-Westlake-owned properties south of the paper street (Hacienda Drive).
SOURCE: Appendix D.4 and IDG Parkitects, Inc., 2015

Southern Coast Live Oak/California Walnut Woodland

The ~~Project~~ Development Site is on the north side of the Santa Monica Mountains and the ~~site~~ Development Site is generally east facing with north facing slopes of the drainages. This topographical situation makes the ~~site~~ Development Site ideal for oak and walnut woodlands. There are ~~44~~ 65 coast live oaks (*Quercus agrifolia*) and 273~~271~~ California black walnuts (*Juglans californica* var. *californica*) on the ~~site~~ Development Site. Both oaks and walnuts are very important to regional wildlife because they depend on them for food and shelter. Most (approximately 78%) of the walnuts (of City ordinance size[1]) on the site are infected with a fungus in the genus *Geosmithia*, which produces a condition commonly known as ~~"thousand canker disease"~~ TCD. TCD is transmitted tree to tree by the walnut twig beetle (WTB), *Pityophthorus juglandis*. TCD was first recorded in 2008 in northern California. It has since spread throughout California including the County. TCD colonizes and kills the vascular tissue beneath the inner layers of bark in branches and stems. As the WTBs and pathogens spread, small cankers form and coalesce, girdling branches. Early symptoms are yellowing of leaves, and foliage thinning of the upper crown of the tree. As TCD progresses larger limbs are killed. In its final stages, TCD may enter the trunk, developing large cankered areas. TCD is ultimately fatal. It kills walnut trees from the cumulative effect of canker formation around individual entry wounds made by WTBs. As these cankers coalesce to girdle twigs and branches, they restrict and cut off the movement of nutrients and water and interfere with the tree's ability to produce and store energy. Tree death results from the progressive depletion of energy.

No pesticides or control methods are currently available to save trees infected with TCD. Some techniques directed at controlling the WTBs may prove useful in suppressing the rate of disease spread but are unlikely to be effective once the tree comes under attack (as has occurred with the majority of walnut trees on the Development Site). To prevent further spread, the University of California Statewide Integrated Pest Management Program prescribes that infected trees be removed and the material destroyed by grinding or burning immediately to ensure WTBs are destroyed. The State Department of Fish and Wildlife concurs with this approach to control ~~of~~ TCD (for additional detail see **Appendix D.3**). On December 16, 2013, the State Department of Fish and Wildlife submitted a comment letter to the DEIR that echoed the University of

[1] The City Los Angeles Protected Tree Ordinance (Ordinance No. 177,404) (City Tree Ordinance).

California Statewide Integrated Pest Management Program. Addressing the best practice steps for removing trees infected with TCD, the Department of Fish and Wildlife wrote:

> "Proper Disposal of Infected California Walnuts -- All California walnut trees infected with the [TCD] that are removed from the [Development Site] should be dispose[d] of properly to reduce the chance of spread to other trees. Properly dispos[ing] of material from affected trees includes burning or burying branches and smaller diameter wood as soon as possible. Persons salvaging wood and branches off the [Development Site] can spread the insect carrier and fungus to new areas. Tools and equipment coming into contact with infected trees should be sanitized before reuse." (Page 4, Paragraph 3)

~~This condition appears to always be fatal to infected trees.~~

A detailed tree report and two updates (to account for revisions to the Development Site boundary, and to update the impacted tree count based on revised construction limits to allow a 15 foot clear area atop the retaining walls as requested by the City) ~~has~~ have been prepared for the Project (see **Appendix D.2A,** ~~**and**~~ **Appendix D.2B** and **Appendix D.3**).

Ornamental Landscaping and Disturbed Areas

For the purposes of this report, it is appropriate to combine the evaluation of the disturbed areas and the ornamental landscaping because they are closely associated and each category provides minimal habitat value for local wildlife. The grouping consists of areas occupied by driveways, existing buildings, cleared pads, equipment storage areas, and the ornamental landscaping surrounding these areas.

Landscaped areas are associated with ~~the~~ ~~two~~ five ~~existing~~ residences: four pads in the eastern/central part of the Development Site where two homes were removed after being damaged in the 1994 Northridge Earthquake and two were demolished in 2011; one home with access from Potosi Avenue which is owned by Harvard-Westlake School and is currently vacant. ~~and the cleared pad areas that may have once also contained residences~~. Trees used in the landscaping include Aleppo pine (*Pinus halapensis*), Peruvian pepper (*Schinus molle*), Chinese elm (*Ulmus parvifolia*), and silver wattle (*Acacia dealbata*). Several other landscape species, more commonly thought of as shrubs, have grown quite large, some approaching tree-like proportions. Among the shrubs used for landscaping on the Development Site are oleander (*Nerium oleander*), privet (*Ligustrum* sp.), Victorian box (*Pittosporum undulatum*), cotoneaster (*Cotoneaster* sp.), and Spanish bayonet (*Yucca aloifolia*).

Ruderal

Ruderal species are generally weedy and invasive plants that rapidly colonize disturbed areas. On the Development Site, the only part of the site (approximately 0.34 acres located on the western and northwestern portions of the Development Site) that could be classified as ruderal is a field of castor-bean (*Ricinus communis*). Castor-bean is a highly toxic and highly invasive noxious weed that may grow into a large shrub. In the area that is heavily dominated by the castor-bean there is a sparse understory of nonnative grasses dominated by wild oats (*Avena* spp.).

Sensitive Biological Resources

Several species known to occur in the Project vicinity are protected pursuant by Federal and/or State endangered species laws, or have been designated as Species of Concern by the United States Fish and Wildlife Service (USFWS) or Species of Special Concern by the California Department of Fish and Wildlife (CDFW).[2] In addition, Section 15380(b) of the CEQA Guidelines provides a definition of rare, endangered or threatened species that are not included in any listing. Species recognized under these terms are collectively referred to as "special-status species." For purposes of this analysis, special-status species include:

- Plant and wildlife species listed as rare, threatened or endangered under the Federal or State Endangered Species Acts
- Species that are candidates for listing under either Federal or State law
- Species designated by the USFWS as Proposed or Candidates for listing and/or species designated as Species of Special Concern by CDFW
- Species protected by the Federal Migratory Bird Treaty Act (16 U.S.C. 703-711)
- Bald and golden eagles protected by the Federal Bald Eagle Protection Act (16 U.S.C. 668)
- Species such as candidate species that may be considered rare or endangered pursuant to Section 15380(b) of the CEQA Guidelines[3]

The California Natural Diversity Data Base (CNDDB 2011) and California Native Plant Society's online inventory, as well as personal knowledge of the Project's biologist~~s~~ were used to compile the following list of sensitive species with the potential to occur on the Development Site. These databases were queried for reports of sensitive biological resources in the following USGS 7.5 minute quadrangle map areas: Van Nuys, San Fernando, Sunland, Canoga Topanga, Oat Mountain, Burbank, Beverly Hills, and Hollywood. Sensitive Species in the area are shown in **Table 3.3-2**. Few of these species are determined to be present on the Development Site. However, ~~As~~ as indicated in **Table 3.3-2**, the following species and habitats were determined to be present or potentially present on the Development Site: Plummer's Mariposa Lily, Coastal Western Whiptail, Silvery Legless Lizard, San Bernardino Ringneck Snake, White-throated Swift, Rufous Hummingbird, Nuttall's Woodpecker, Oak Titmouse, Cooper's Hawk, California Walnut Woodland habitat, and Southern Coast Live Oak Riparian Forest habitat.

Sensitive Plant Communities

Oak trees and California black walnut trees are protected by the City ~~Los Angeles Protected~~ Tree Ordinance ~~(Ordinance No. 177,404)~~ and oak woodland habitat is protected by Section 21083.4 of the California Public Resources Code [4] ~~Forty four (44)~~ 65 coast live oaks are located within the survey area.

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[2] January 1, 2013 the California Department of Fish and Game (CDFG) changed their name to the California Department of Fish and Wildlife (CDFW). However, the name of the California Department of Fish and Game Code was not changed.

[3] Appendix D.1, p. 4

[4] In 2004, the *Oak Woodlands Conservation Act* was enacted and codified as Section 21083.4 of the Public Resources Code. This ~~Act~~ act states, "A county...shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment". Once a determination has been made, counties have the option to 1) evaluate the utility of conservation easements as a vehicle for conservation; 2) enforce mitigation planting; 3) make a in-lieu contribution to the Oak Woodlands Conservation Fund (established in 2001 under the administration of the Wildlife Conservation Board), or implement other mitigation actions as outlined by the county.

Wildlife

Because the ~~Project~~ Development Site is small and most of the wildlife observed are able to move freely between the habitat types present, no discussion of differential habitat utilization by the observed wildlife species will be presented since it would not affect the analysis presented below. All of the wildlife observed or expected to occur on the site can be expected in all areas of the ~~site~~ Development Site. It is expected that wildlife would utilize the disturbed and ruderal areas to a lesser extent, and that these areas are of less importance to the resident wildlife than the relatively undisturbed habitats present. The following paragraphs describe common representatives of each class of wildlife noted on the Development Site.

The area to the west of the Development Site is natural open space. The area to the north, east, south (and further west beyond the open space) is urbanized. Most of the wildlife species found on the ~~site~~ Development Site are acclimated to the presence of people and pets. A few species that are more reclusive may utilize the Development Site nocturnally when there is less likelihood of interactions with people or pets. Additionally, a few species with small home ranges may inhabit the Development Site oblivious to, and unaffected by, the presence of the nearby suburban development. Typical of these species would be non-sensitive species such as amphibians like the western toad (*Anaxyrus boreas*) and black-bellied slender salamander (*Batrachoseps nigrlventris*), and reptiles like the western fence lizard (*Sceloporus occidentalis*) and southern alligator lizard (*Elgaria multicarinatus*), but could also include sensitive species such as the ringneck snake (*Diadophus punctatus modestus*).

TABLE 3.3-2: SENSITIVE BIOLOGICAL RESOURCES IN THE PROJECT VICINITY

COMMON NAME	SCIENTIFIC NAME	PRESENCE ONSITE	FWS	CDFW	CNPS PIF
Plants					
Malibu Baccharis	*Baccharis malibuensis*	N	--	--	1B
Southern Tarplant	*Centromadia parryi* ssp. *australis*	N	--	--	1B
Santa Susana Tarplant	*Deinandra minthornii*	N	--	R	1B
Los Angeles Sunflower	*Helianthus nuttallii* ssp. *parishii*	N	--	--	1A
Lyon's Pentachaeta	*Pentachaeta lyonii*	N	E	E	1B
Beach Spectacledpod	*Dithyrea maritima*	N	--	T	1B
Coulter's Saltbush	*Atriplex coulteri*	N	--	--	1B
Parrish's Brittlescale	*Atriplex parishii*	N	--	--	1B
Nevin's Barberry	*Berberis nevinii*	N	E	E	1B
Blochman's Dudleya	*Dudleya blochmaniae* ssp. *blochmaniae*	N	--	--	1B
Agoura Hills Dudleya	*Dudleya cymosa* ssp. *agourensis*	N	T	--	1B
Marcescent Dudleya	*Dudleya cymosa* ssp. *marcescens*	N	T	R	1B
Santa Monica Mountain Dudleya	*Dudleya cymosa* ssp. *ovatifolia*	N	T	--	1B
Many-stemmed Dudleya	*Dudleya multicaulis*	N	--	--	1B
Conejo Dudleya	*Dudleya parva*	N	T	--	1B
Braunton's Milk-vetch	*Astragalus brauntonii*	N	E	--	1B
Ventura Marsh Milk-vetch	*Astragalus pycnostachyus* var. *lanosissimus*	N	E	E	1B
Coastal Dunes Milk-vetch	*Astragalus tener var. titi*	N	E	E	1B
Davidson's Bush Mallow	*Malacothamnus davidsonii*	N	SC	--	1B
Round-leaved Filaree	*Erodium macrophyllum*	N	--	--	2
Mud Nama	*Nama stenocarpum*	N	--	--	2
Salt Spring Checkerbloom	*Sidalcea neomexicana*	N	--	--	2
San Fernando Valley Spineflower	*Chorizanthe parryi* var. *fernandina*	N	C	E	1B
Parry's Spineflower	*Chorizanthe parryi* var. *parryi*	N	--	--	3
Slender-horned Spineflower	*Dodecahema leptoceras*	N	E	E	1B
Conejo Buckwheat	*Eriogonum crocatum*	N	--	R	1B
Dune Larkspur	*Delpinium parryi* ssp. *blochmaniae*	N	--	--	1B
Salt Marsh Bird's-beak	*Cordyylanthus maritimus* ssp. *maritimus*	N	E	E	1B
Sonoran Maiden Fern	*Thelypteris puberula* var. *sonorensis*	N	--	--	2

TABLE 3.3-2: SENSITIVE BIOLOGICAL RESOURCES IN THE PROJECT VICINITY					
Common Name	**Scientific Name**	**Presence Onsite**	**FWS**	**CDFW**	**CNPS PIF**
Slender Mariposa Lily	*Calochortus clavatus* var. *gracilis*	N	--	--	1B
Plummer’s Mariposa Lily	*Calochortus plummerae*	P	--	--	1B
Chaparral Nolina	*Nolina cismontane*	N	--	--	1B
California Orcutt Grass	*Orcuttia californica*	N	E	E	1B
Invertebrates					
Riverside Fairy Shrimp	*Streptocephalus woottoni*	N	E	--	--
Tengellid Spider	*Socalchemmis gertschi*	N	--	--	--
Santa Monica Shieldback Katydid	*Neduba longipennis*	N	--	--	--
Santa Monica Grasshopper	*Trimerotropis occidentaloides*	N	--	--	--
Sandy Beach Tiger Beetle	*Cicindela hirticollis gravida*	N	--	--	--
Globose Dune Beetle	*Coelus globosus*	N	--	--	--
Monarch Butterfly (roosting)	*Danaus plexippus*	N	--	--	--
Fish					
Tidewater Goby	*Eucyclogobius newberryi*	N	E	--	--
Arroyo Chub	*Gila orcutti*	N	--	SC	--
Southern Steelhead	*Oncorhynchus mykiss irideus*	N	E	--	--
Amphibians					
Western Spadefoot	*Spea hammondii*	N	SC	SC	--
Arroyo Toad	*Bufo californicus*	N	E	SC	--
California Red-legged Frog	*Rana aurora draytonii*	N	T	SC	--
Reptiles					
Southwestern Pond Turtle	*Actinemys marmorata*	N	SC	SC	--
Coast (San Diego) Horned Lizard	*Phrynosoma coronatum blainvillei*	N	--	SC	--
Coastal Western Whiptail	*Aspidoscelis tigris stejnegeri*	P	--	SC	--
Silvery Legless Lizard	*Anniella pulchra pulchra*	V	SC	SC	--
San Diego Mountain Kingsnake	*Lampropeltis zonata pulchra*	N	--	SC	--
Two-striped Garter Snake	*Thamnophis hammondii*	N	--	SC	--
San Bernardino Ringneck Snake	*Diadophus punctatus modestus*	P	--	--	--
Birds					
Golden Eagle	*Aquila chrysaetos*	N	FP	SC	--
Coopers Hawk	*Accipiter cooperii*	V		SC	
Western Yellow-billed Cuckoo	*Coccyzus americanus occidentalis*	N	C	E	--
Burrowing Owl	*Athene cunicularia*	N	SC	SC	--
White-throated Swift	*Aeronautes saxatalis*	P-T	--	--	T&D
Rufous Hummingbird	*Selasphorus rufus*	O	--	--	T&D
Nuttall's Woodpecker	*Picoides nuttallii*	O	--	--	RR
Southwestern Willow Flycatcher	*Empidonax traillii extimus*	N	E	E	T&D
Least Bell’s Vireo	*Vireo bellii pusillus*	N	E	E	T&D
Bank Swallow	*Riparia riparia*	N	--	T	--
Oak Titmouse	*Baeolophus inornatus*	O	SLC	--	T&D
Coastal California Gnatcatcher	*Polioptila californica*	N	T	SC	RR
Southern California Rufous-crowned Sparrow	*Europhilia reface’s capeskins*	N	--	SC	--
Tricolored Blackbird	*Agelaius tricolor*	N	--	SC	RR
Mammals					
San Diego Black-tailed Jackrabbit	*Lupus californica Bennett*	N	--	SC	--
Los Angeles Pocket Mouse	*Perognathus longimembris brevinasus*	N			
San Diego Desert Woodrat	*Neotoma lepida intermedia*	N	--	SC	--
American Badger	*Taxidea taxus*	U	--	SC	--
Habitats					
California Walnut Woodland	--	O	--	--	--
Cismontane Alkali Marsh	--	N	--	--	--
Southern California Coastal Lagoon	--	N	--	--	--
Southern California Steelhead Stream	--	N	--	--	--
Southern Coast Live Oak Riparian Forest*	--	O	--	--	--
Southern Coastal Salt Marsh	--	N	--	--	--
Southern Cottonwood Willow Riparian Forest	--	N	--	--	--

TABLE 3.3-2: SENSITIVE BIOLOGICAL RESOURCES IN THE PROJECT VICINITY					
COMMON NAME	**SCIENTIFIC NAME**	**PRESENCE ONSITE**	**FWS**	**CDFW**	**CNPS PIF**
Southern Mixed Riparian Forest	--	N	--	--	--
Southern Riparian Scrub	--	N	--	--	--
Southern Sycamore Alder Riparian Woodlands	--	N	--	--	--
Southern Willow Scrub	--	N	--	--	--
Valley Needlegrass Grassland	--	N	--	--	--
Valley Oak Woodland*	--	N	--	--	--
Streamcourses**	--	N	--	--	--

Source: Appendix D.1, pp.5-8

Footnotes for Table 3.3-2

[FWS – United States Fish and Wildlife Service; CNPS– California Native Plan Society; PIF -- Partners in Flight]

OCCURRENCE

O Species **O**ccurs onsite.
O-T Species **O**ccurs onsite as a **T**ransient
V Species **V**ery likely occurs onsite.
P-T Species **P**ossibly Occurs onsite as a **T**ransient
P Species **P**ossibly may occur onsite.
U Species is **U**nlikely to occur onsite.
N **N**o occurrence onsite.

STATUS

E **E**ndangered; Species is in immediate danger of extirpation or extinction from existing pressures.
SC **S**pecies of **C**oncern, formerly a candidate for federal listing but that category was eliminated but these species are thought to warrant special attention due to suspected declines.
3A Species withdrawn from candidacy for federal listing; believed to be extinct.
3B Species withdrawn from candidacy for federal listing; believed not to be taxonomically valid given current information.
3C Species withdrawn from candidacy for federal listing; proven to be more widespread than previously believed and/or not subject to any identifiable threat.
FP **F**ully **P**rotected by special ordinance or statute.
CT / CE State candidate for listing as threatened (T) or Endangered (E).
PT **P**roposed **T**hreatened; Species for which a proposed rule to list as endangered or threatened has been published in the Federal Register (exclusive of taxa for which the proposed rule has been withdrawn or finalized).
T **T**hreatened; Species not presently threatened with extinction, but is likely to become an Endangered species in the foreseeable future in the absence of special protection and management efforts.
1A CNPS Priority List 1A; plant presumed extinct in CA.
1B CNPS Priority List 1B; plant Rare, Threatened, or Endangered in CA and elsewhere; eligible for State listing.
2 CNPS Priority List 2; plant rare, threatened, or Endangered in CA, but more common elsewhere; eligible for state listing.
3 CNPS Priority List 3; more information is needed about this species.
4 CNPS Priority List 4; on watch list for plants of limited distribution.
* CA has no authority to legally list invertebrate species; however, a legal agreement (1988) requires the state to monitor the status of federally listed species for threats of extinction and/or extirpation.
m Though not protected by the state or federal government, oaks are protected by a number of local ordinances and are invariably defended vehemently by public and private special interest groups.
SC CDFW Species of **S**pecial **C**oncern; native species not having state or federal Threatened or Endangered Species status, but thought to warrant monitoring due to declining population numbers. Includes those species tracked in the CNDDB but not given any other special status.
SLC **S**pecies of **L**ocal **C**oncern as reported in the FWS Sacramento region's Species of concern list.
CSC1 CDFW Species of Special Concern, Highest Priority; species appears to face a high probability of extinction or extirpation from their entire geographic range in CA if current trend continues.
c CDFW Species of Special Concern, Second Priority; population is definitely in jeopardy and declining, but the threat of extinction or extirpation is not immediate.
d CDFW Species of Special Concern, Third Priority; species does not appear to face extinction soon, but populations are declining seriously or they are otherwise highly vulnerable to human developments.
FSS **F**ederal (Bureau of Land Management and US Forest Service) **S**ensitive **S**pecies.

CNDDB ranks are shorthand formulas that provide information on the rarity of a species or subspecies, both throughout its global range and its range within the State. We use the best information available to assign these ranks and they are regularly updated as new information becomes available.

GLOBAL RANKS: Worldwide status of a full species: G1 to G5

G1 = Extremely endangered: <6 viable occurrences (EO's) or <1,000 individuals, or < 2,000 acres of occupied habitat

G2 = Endangered: about 6-20 EO's or 1,000 - 3,000 individuals, or 2,000 to 10,000 acres of occupied habitat

G3 = Restricted range, rare: about 21-80 EO's, or 3,000 – 10,000 individuals, or 10,000 – 50,000 acres of occupied habitat

G4 = Apparently secure; some factors exist to cause some concern such as narrow habitat or continuing threats

G5 = Demonstrably secure; commonly found throughout its historic range

STATE RANKS: Statewide status of a full species or a subspecies: S1 to S5

Same general definitions as global ranks, but just for the range of the taxa within California.

T-RANKS: Status of a subspecies throughout its range: T1 to T5

A subspecies is given a T-rank. This is attached to the G-rank for the full species. The S-rank, in this case, will refer to the status of the subspecies within California. The T-rank has the same general definitions as the global ranks.

RR T&D HC — Partners in Flight (PIF) watch list is produced by a coalition of non governmental organizations including the National Audubon Society, American Bird conservancy, American Birding Association, National Fish and Wildlife Foundation, Colorado Bird Observatory, Cornell Lab of Ornithology and others. Watched species are those that are faced with population decline, limited geographic range, and/or threats such as habitat loss on their breeding and wintering grounds. The list excludes species listed under the ESA. HC – **H**ighest **C**oncern – Species that are in imminent danger of extinction in the wild (may include listed species) RR **R**ange **R**estricted - indicates a species whose range is limited and which might be vulnerable to catastrophic events. T&D **T**hreatened and **D**eclining – Indicates a species for which existing data indicates that ongoing threats are resulting in a decline of the species throughout its range.

W — **W**atch List; Location information for this species not computerized. The CNDDB is currently collecting distribution information.

* — Protected by County Ordinance (all oak species)

** — Protected by CDFW Code Chapter 1600 and Section 404 of the Clean Water Act (U.S. Army Corps of Engineers (USACE).

All 24 of the bird species observed on the Development Site (see **Appendix D.1a** for the listing) are common in either oak and walnut woodlands or urban environments. Among the birds observed were red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), northern mockingbird (*Mimus polyglottos*), yellow-rumped warbler (*Dendroica coronata*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Carduelis psaltria*), and Nuttal's woodpecker (*Picoides nuttallii*).

Mammal use of the Development Site is typical of the Santa Monica Mountains, with the only species present in the range that would not habitually utilize the Development Site ~~site~~ being the mountain lion (*Puma concolor*) and badger (*Taxidea taxus*). Mountain lions could traverse the Development Site occasionally and may hunt the deer that are regularly present there. However, mountain lions have very large home ranges and though the Development Site is certainly within the home range of at least one mountain lion, it is a small appendage of the greater open space areas in the region and does not provide good connectivity to other open space areas, therefore, mountain lion use of the Development Site is expected to be incidental. Badgers prefer large, relatively level, and relatively open grass and shrublands that support high populations of fossorial (ground dwelling) mammals, their primary food source. The Development Site is generally steep, with only a small grassland component making it generally unfavorable for the badger. Eight species of mammals were recorded on the ~~site~~ Development Site by direct observation or the presence of diagnostic signs, these were: fox squirrel (*Sciurus niger*), Botta's pocket gopher (*Thomomys bottae*), deer mouse (*Peromyscus maniculatus*), dusky-footed woodrat (*Neotoma fuscipies*), coyote (*Canis latrans*), domestic dog (*Canis familiaris*), grey fox (*Urocyon cinereoargenteus*), and mule deer (*Odocoileus hemionus*). Other mammal species not observed but likely to use the Development Site, based on habitat preferences and known ranges, may include striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), black rat (*Rattus rattus*), western gray squirrel (*Sciurus griseus*), California bat (*Myotis californicus*), western pipistrelle (*Pipistrellus hesperus*), big brown bat (*Eptesicus fuscus*), and Virginia opossum (*Didelphis virginiana*).

Wildlife Movement Corridors/Habitat Linkages

A wildlife corridor is a strip of land that connects two, or more, larger land areas and is free of barriers that would seriously curtail or prevent wildlife passage. These corridors can serve as useful habitat in their own right, or can serve as travel lanes for seasonal movements of wildlife. Their value depends upon width, habitat type and structure, nature of surrounding habitat, human use patterns, and other factors. Typically, a wildlife corridor provides refuge and ease of movement, and often follows ridgelines or drainages. Wildlife movement corridors are important for the free movement of animals between population centers, for access to food and water sources during drought, as escape routes from brush fires, and, in the longer term, for dispersal of genetic traits between population centers.

Urban development fragments natural habitats into smaller and more isolated units. In the process, it destroys habitat of many species, modifies habitat of others, and creates new habitat for some (Adams and Dove, 1989). Many studies have indicated that, in general, habitat size is the most important factor in determining land vertebrate species diversity (Adams and Dove 1989). The degree of habitat isolation and percentage of vegetative cover are other major factors in species variety and abundance.

Genetic dispersion is the key factor in maintaining viable wildlife and plant populations as they become more and more fragmented. The smaller the population (as in populations isolated by development), the greater is the likelihood of inbreeding. Inbreeding allows harmful recessive alleles to be paired together, thereby manifesting the trait. Without the presence of the dominant allele that would mask an otherwise fatal inherited disease, the recessive allele for that disease could become predominant in the isolated population, resulting in the eventual extinction of that population. Wildlife corridors can prevent local extinctions by connecting relatively small open space preserves, thereby allowing gene flow and providing for a wide diversity of genetic traits throughout the interconnected populations (see **Figure 3.3-1** Open Space Network showing open space in the ~~site~~ vicinity of the Development Site that is either a) identified in a planning document as established or desirable, or b) undesignated, undeveloped private lands containing open areas).

The area surrounding the Project Site is urbanized in the relatively sparse manner typical of the Santa Monica Mountains, with large houses on large lots that frequently lack fencing. This allows for the passage of terrestrial wildlife that is acclimated to the presence of people and pets. There is also an extensive network of natural open space preserves and undeveloped land that form a nearly contiguous east-west band of natural habitat that extends from the 101 Freeway to the east to Topanga Canyon State Park and the area known as the “Big Wild” to the west. The western boundary of the ~~Project~~ Development Site is contiguous with the Coldwater Canyon Open Space Preserve, which is a part of the previously described open space network. At present the ~~site~~ Development Site provides a very minimal barrier to wildlife movement that is principally based on the ~~vacant nature~~ lack of habitat on the cleared portions of the Development Site and the people using the existing pads as materials and equipment storage facilities.

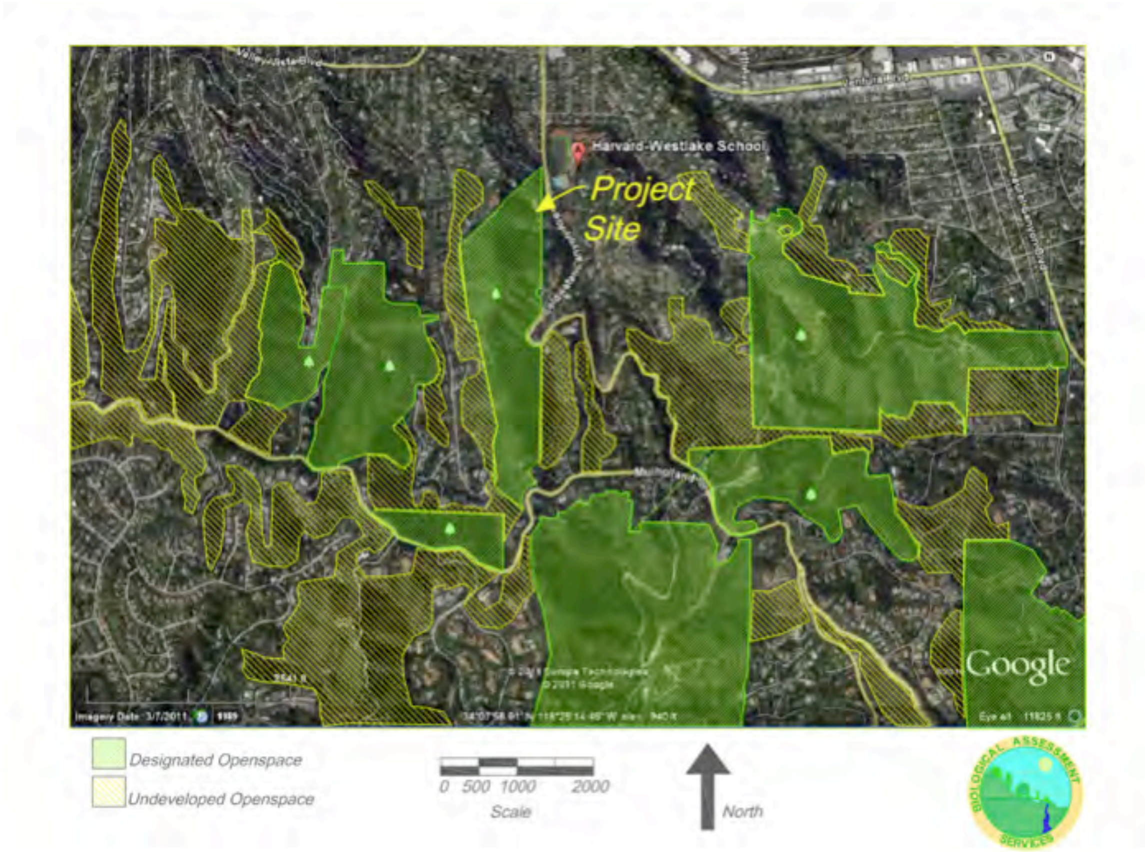


Figure 3.3-1:
Open Space Network in the Site Vicinity

Source: Google Earth included in Appendix D

When activity levels are low, wildlife is expected to traverse the Development Site unhindered. This conclusion is supported by repeated sightings of deer and coyote on the Development Site. However, the Development Site is at the northern edge of one unit of this open space network, with the majority of the preserved and undeveloped open space located in a wide east-west band that is centered south of the Development Site**.** The Development Site is located at the east edge of the northern end of a finger or peninsula of open space within the surrounding suburban development (as noted in Section 3.6 Land Use, generally identified in Figure 3.3-1 and more specifically shown in Figure 3.6-1, 75% of the Development Site is within an area identified as Desirable Open Space). Terrestrial wildlife traversing the site cannot leave the site directly to the north, east, or south, without entering developed areas and/or crossing roads. In order to find connectivity with larger undeveloped areas, any terrestrial wildlife would have to leave the Development Site going west and then go south into the labyrinth of interconnected open space areas. The Development Site connects to open space to the west but does not provide connectivity between larger open space areas.

Wetlands and Waters of the United States and California

Jurisdictional Determinations

Army Corps of Engineers (ACOE) "Waters of the U.S." As determined during the biological surveys of the Development Site, there are no ACOE "Waters of the U.S." contained within the Development Site (see **Appendix D.1**).

ACOE Wetlands. As determined during the biological surveys of the Development Site, there are no areas located within the ~~site~~ Development Site that meet the definition of wetlands, per ACOE criteria (see **Appendix D.1a**).

CDFW Jurisdictional Riparian Areas. As determined during the biological surveys of the Development Site, there are no areas located within the ~~site~~ Development Site that meet the definition of riparian areas, per CDFW criteria (see **Appendix D.1**).

Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP)

The ~~site~~ Development Site is not located within an NCCP or HCP.

REGULATORY FRAMEWORK

Federal

Federal Endangered Species Act

Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as threatened or endangered (16 United States Code [USC] 1533[c]). Pursuant to the requirements of FESA, a Federal agency reviewing a Proposed Project within its jurisdiction must determine whether any federally listed, threatened, or endangered species, or species proposed for Federal listing may be present in the Project area and determine whether the Proposed Project will have a potentially significant impact on such species. In addition, the Federal agency is required to determine whether the Project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536[3], [4]). Adverse Project impacts on these species or their habitats would be considered potentially significant.

Procedures for addressing Federal-listed species follow two principal pathways, both of which require consultation with the USFWS, which administers the ~~Act~~ FESA for all terrestrial species, and/or the National Marine Fisheries (NMFS), which has jurisdiction over anadromous salmonids. The first pathway (FESA, Section 10(a) Incidental Take Permit) is set up for circumstance where a non-Federal government entity (or where no federal nexus exists) must resolve potential adverse impacts to species protected under the ~~Act~~ FESA. The second pathway (FESA, Section 7 Consultation) involves projects with a Federal connection or requirement; typically these are projects where a Federal lead agency is sponsoring or permitting the Proposed Project. For example, a permit from the ~~U.S. Army Corp of Engineers (~~ACOE ~~or Corps)~~ may be required if a project will result in wetland impacts. In these instances, the Federal lead agency (e.g., the ACOE) initiates and coordinates the following steps: informal consultation with USFWS and/or NMFS to establish a list of target species; preparation of biological assessment assessing potential for the project to adversely affect listed species; coordination between state and Federal biological resource agencies to assess impacts/proposed mitigation; and development of appropriate mitigation for all significant impacts on Federally listed species.

The USFWS and/or NMFS ultimately issue a final Biological Opinion on whether the project will affect the Federally listed species. A Section 10(a) Endangered Species Incidental Take Permit may be necessary when the "taking" or harming of a species is incidental to the lawful operation of a project.

The USFWS also publishes a list of candidate species. Species on this list receive "special attention" from federal agencies during environmental review, although they are not otherwise protected under FESA. The candidate species are taxa for which the USFWS has sufficient biological information to support a proposal to list as Endangered or Threatened.

Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act (16 USC, Sec. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of prey are protected in California under the State Fish and Game Code, Section 3503.5, ~~1992.~~ Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. Project impacts to these species would not be considered significant unless they are known or have a high potential to nest in the project area or to rely on it for primary foraging.

State

California Endangered Species Act

Section 2080 of the California Fish and Game Code prohibits the taking of plants and animals listed under the authority of the ~~California Endangered Species Act of 1984 (~~CESA~~)~~. Under the ~~California Endangered Species Act (~~CESA~~)~~, CDFW maintains a list of threatened species and endangered species (California Fish and Game Code Section 2070). The CDFW also maintains a list of candidate species that are species that the CDFW has formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. The CDFW also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in ~~the~~ a project area and determine whether ~~the~~ a proposed project will have a potentially significant impact on such species.

California Native Plant Protection Act

The legal framework and authority for the State's program to conserve plants are woven from various legislative sources, including CESA, the California Native Plant Protection Act (Fish and Game Code Sections 1900 – 1913), CEQA Guidelines, and the Natural Communities Conservation Planning Act.

The Native Plant Protection Act of 1977 (Fish and Game Code Section 1900 et seq.) gives the CDFW authority to designate State Endangered, Threatened, and Rare plants and provides specific protection measures for identified populations. Sensitive plant and wildlife species that would qualify for listing but are not currently listed are afforded protection under CEQA. The CEQA Guidelines, Section 15065 ("Mandatory Findings of Significance") requires that a reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380 ("Rare or endangered species") provides for assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing.

California Native Plant Society

California Native Plant Society (CNPS) maintains a list of special status plant species based on collected scientific information. Designation of these species by CNPS has no legal status or protection under federal or state endangered species legislation. CNPS designations are defined as List 1A (plants presumed extinct); List 1B (plants rare, threatened, or endangered in California and elsewhere); List 2 (plants rare, threatened, or endangered in California, but more numerous elsewhere); List 3 (plants about which more information is needed – a review list); and List 4 (plants of limited distribution - a watch list). In general, plants appearing on CNPS List 1A, 1B or 2 meet the criteria of Section 15380 of the CEQA Guidelines; thus, substantial adverse effects to these species would be considered significant. Additionally, plants constituting CNPS List 1A, 1B or 2 meet the definitions of ~~California Department~~ Fish and Game Code Section 1901 (Native Plant Protection Act) or Sections 2062 and 2067 (California Endangered Species Act).

Wetlands, Streams and Riparian Habitat

Federal

U.S. Army Corps of Engineers. Wetlands and other waters, e.g., rivers, streams and natural ponds, are a subset of "waters of the U.S." and receive protection under Section 404 of the Federal Clean Water Act. The regulations and policies of various federal agencies (e.g., ACOE, United States Department of Agriculture [USDA], and Natural Resource Conservation Service [NRCS], U.S. Environmental Protection Agency [EPA]) mandate that the filling of wetlands be avoided to the extent possible. The ~~Corps~~ ACOE has primary Federal responsibility for administering regulations that concern waters of the U.S. In this regard, the ~~Corps~~ ACOE acts under two statutory authorities, the Rivers and Harbors Act (Sections 9 and 10), which governs specified activities in "navigable waters," and the Clean Water Act (Section 404), which governs specified activities in "waters of the United States," including wetlands. Navigable waters of the United States are defined as those waters that are a subject to the ebb and flow of the tide or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. EPA has the ultimate authority for designating dredge and fill material disposal sites and can veto the ~~Corp's~~ ACOE's issuance of a permit to fill jurisdictional waters of the U.S.

The term "waters of the U.S. " as defined in the Code of Federal Regulations (33 CFR 328.3[a]; 40 CFR 230.3[s]) includes: (1) All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; (2) All interstate waters including interstate wetlands; (3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or which are used or could be used for industrial purposes by industries in interstate commerce; (4) All impoundments of waters otherwise defined as waters of the United States under the definition; (5) Tributaries of waters identified in paragraphs (1) through (4); (6) Territorial seas; and (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (1) through (6). The ~~Corps~~ ACOE requires obtaining a permit if a project proposes placing structures within navigable waters and/or alteration of waters of the United States.[5]

Nationwide Permits. Projects that meet certain conditions may be authorized by the ~~Corps~~ ACOE under the Nationwide General Permit Program (NWP), a permitting process for specific activities. In general Nationwide Permits are used for projects that would have minimal impacts to jurisdictional waters or projects for which the actions are deemed necessary for the public good.

Individual Permit. An Individual Permit is required for any project that does not meet the NWP General Conditions. Additional regional requirements for maintaining upland buffer areas between authorized projects and open waters or streams may be conditions for granting any ~~Corps~~ ACOE permit. Activities authorized under an Individual Permit require compliance with ~~Corps~~ ACOE Section 404 regulations, EPA Section 404(b)(1) Guidelines, National Environmental Policy Act, the Federal Endangered Species Act (FESA), Section 106 of the National Historic Preservation Act, and Section 401 of the Clean Water Act (water quality certification).

State

Regional Water Quality Control Board. The Regional Water Quality Control Board (RWQCB) regulates waters of the state under the Porter-Cologne Act. Under Section 401 of the Clean Water Act, the RWQCB has review authority of Section 404 permits. The RWQCB has a policy of no-net-loss of wetlands in effect and typically requires mitigation for all impacts to wetlands before it will issue a water quality certification. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the State, and prospective dischargers are required to submit a report of waste discharge to the RWQCB and comply with other requirements of the Porter-Cologne Act.

California Department of Fish and Wildlife. Under Sections 1600 - 1616 of the California Fish and Game Code, the ~~California Department of Fish and Wildlife (~~CDFW~~)~~ regulates activities

[5] Based on the Supreme Court ruling (Solid Waste Authority of Northern Cook County [SWANCC] Army Corps of Engineers, 531 U.S. 151 (2001)) concerning the Clean Water Act jurisdiction over isolated waters ~~(January 9, 2001)~~, non-navigable, isolated, intrastate waters based solely on the use of such waters by migratory birds are no longer defined as waters of the United States. Jurisdiction of non-navigable, isolated, intrastate waters may be possible if their use, degradation, or destruction could affect other waters of the Unites States, or interstate or foreign commerce. Jurisdiction over such other waters are analyzed on a case-by-case basis. Impoundments of waters, tributaries of waters, and wetlands adjacent to waters should be analyzed on a case-by-case basis.

that would substantially divert, obstruct the natural flow, or substantially change of rivers, streams and lakes. The jurisdictional limits of CDFW are defined in Section 1602 of the California Fish and Game Code as, "bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake…." The CDFW requires a Streambed Alteration Agreement for activities within its jurisdictional area.

Local

City of Los Angeles. City of Los Angeles Protected Tree Ordinance**.** The ~~City of Los Angeles Municipal Code (~~LAMC~~) (~~ Section 1., Subdivision 12 of Subsection (a) of Section 12.21; Ordinance 177,404 as amended~~)~~ provides for the protection of native trees of four types: (1) oaks other than scrub oak (*Quercus dumosa*), (2) southern California black walnut (*Juglans californica* var. *californica*), (3) western sycamore (*Platanus racemosa*), and (4) California bay (*Umbellularia californica*). To qualify for protection, individual plants must also measure four inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the tree.

A detailed tree report has been prepared for the Project PROTECTED TREE REPORT *Harvard-Westlake School Parking Structure, 3701 N. Coldwater Canyon Ave., North Hollywood, CA 91604*. (Land Design Consultants, June 2011). For further information regarding the onsite tree resources, please refer to that report, included as **Appendix D.2B** to this ~~Draft~~ RDEIR. Subsequent to the preparation of that report the City requested that a 15-foot clear area be maintained atop the retaining walls. This impacted the number of trees that would be removed. Therefore an update letter was prepared; that update letter is included in **Appendix D.2A**. Another update was prepared in 2015 to reflect the addition of parcels to the south and updated conditions; see **Appendix D.3**. The LAMC permits the City's Board of Public Works to grant permission to remove or relocate trees that are covered by the Protected Tree Ordinance.

Landscape Ordinance. The City Emergency Water Conservation Plan of the City of Los Angeles (LAMC, Chapter XII, Article 1, Section 121.08) provides for the reduction in the City's water use through the regulation of landscape watering practices throughout the City. The ordinance states that no lawn, landscape, or other turf areas shall be watered or irrigated between the hours of 10:00 am and 5:00 pm from April 1 to September 30, or between the hours of 11:00 am and 3:00 pm from October 1 to March 31. In addition, Article IV of Chapter XII presently requires a ten percent reduction in the amount of water used for landscape irrigation on large turf areas, and provides for surcharges for water used in violation of the requirements. Lastly, LAMC Section 124.03 requires certain water conservation requirements for large turf areas. These mandate that:

(a) Owners of large turf areas in the City of Los Angeles shall reduce or caused to be reduced by ten percent the amount of water used for landscape irrigation purposes on large turf areas. The ten percent reduction shall be calculated based on the corresponding billing period in the base year.

(b) Owners of large turf areas shall comply with the requirements of Subsection (a) of this section by October 13, 1988.

(c) Owners of large turf areas who install water conservation devices that are specifically designed or manufactured, as determined by the ~~Department of Water and Power~~ DWP, to reduce water consumption by at least ten percent shall be deemed to have complied with this section.

(d) The provisions of this section shall not apply to those owners of large turf areas who are determined by the ~~Department of Water and Power~~ DWP to use reclaimed water for landscape irrigation purposes.

Urban Forest

An urban forest is the sum total of all vegetation growing in urban areas. According to the National Urban Forest Council, an urban forestry is defined as: "The art, science, and technology of managing trees, forests, and natural systems in and around urban areas for the health and well being of communities."

Urban forests, and in particular trees, provide significant benefits to communities although the urban ecosystem presents a less than optimal environment for tree growth. Urban sprawl has contributed to the decline of urban forests and the development of additional problems associated with urban heat islands and storm water runoff. In an attempt to deal with these additional problems, communities have experienced increased costs associated with the installation and repair or their gray infrastructures (sewers, utilities, buildings, roads, etc). As such, more communities are recognizing that vegetation, especially trees, make up a green infrastructure that has the potential to improve the quality of life in a more cost effective manner than the gray infrastructure.[6] The City of Los Angeles contains one of the largest urban forests in the United States.[7]

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines, as amended through January 1, 2010, provides criteria under which a project could have a significant impact. Specifically, a project is considered to have a significant impact if it meets any of the following criteria and cannot be adequately mitigated:

- A project has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies or regulations or by the CDFW or the USFWS.
- A project has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the CDFW or the USFWS.
- A project has a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the ~~Federal Clean Water Act (~~CWA~~)~~, CDFW or California Coastal Commission, including but not limited to marsh, coastal, etc. through direct removal, filling, hydrological interruption or other means.
- A project interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedes the use of native wildlife nursery sites.
- A project conflicts with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance.

6 Source: National Urban Forest Council, 2008.
7 City of Los Angeles, Bureau of Street Services, Urban Forestry Division: ~~http://www.lacity.org/boss/UrbanForestryDivision/index_managingUF.htm, accessed July 25, 2010.~~ http://bss.lacity.org/UrbanForestry, accessed December 1, 2015.

- A project conflicts with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP) or other approved local, regional or state HCP.

Additionally, the ~~City of Los Angeles~~ L. A. CEQA Thresholds Guide provides thresholds not encompassed by the CEQA Guidelines. These thresholds state that a significant impact would result if:

- The loss of individuals, or the reduction of existing habitat, of a state or federal listed endangered, threatened, rare, protected, or candidate species, or a Species of Special Concern or federally listed critical habitat;

- The loss of individuals or the reduction of existing habitat of a locally designated species or a reduction in a locally designated natural habitat or plant community;

- Interference with wildlife movement/migration corridors that may diminish the chances for long-term survival of a sensitive species;

- The alteration of an existing wetland habitat;

- Interference with habitat such that normal species behaviors are disturbed (e.g., from the introduction of noise, light) to a degree that may diminish the chances for long-term survival of a sensitive species.

For purposes of this report, the Proposed Project is considered to have a significant impact if it exceeds any of the above thresholds as stated by Appendix G of the CEQA Guidelines, or the ~~City of Los Angeles~~ L. A. CEQA Thresholds Guide.

IMPACTS

Potential impacts to biological resources were evaluated based on the biological resources known or thought likely to be present on the Development Site and the overlay of the Proposed Project impact area on the habitats present on the Development Site.

The primary impact of the Proposed Project would be the direct removal of onsite plant communities and the wildlife habitat that they represent. Degradation of remaining natural areas after Project implementation would constitute a secondary Project impact. Given that the San Bernardino ringneck snake and coastal western whiptail are likely present on-site and given the disturbance to 1.43 acres of oak-walnut woodland and 2.86 acres of disturbed area, the impact to these two species is considered significant. While the walnut trees on the Development Site are generally in poor condition (as a result of the TCD), the loss of 1.43 acres of oak/walnut woodland would nonetheless contribute to cumulative loss of this habitat as well as to a cumulative impact on the sensitive species that forage in this habitat.

Vegetation

Figure 3.3-2 indicates vegetation that would be impacted by the Project. The ~~red~~ white line indicates the construction limits plus a 10-foot buffer to account for potential impacts immediately adjacent to construction activity ~~(a small amount of this potentially impacted and impacted buffer area is off-site – see discussion below)~~.

SOURCE: Land Design Consultants

Figure 3.3-2

Vegetation Impact Map

Habitats. The Development Site has been expanded to include the paper street (Hacienda Drive) and properties south of Hacienda Drive that are owned by the Harvard-Westlake School. The Project Site is now approximately 25.83 acres. As shown in Table 3.3-3 below, approximately 4.43 ~~3.96~~ acres of the 6.83 acres of the Development Site would be impacted by the Project (see **Table 3.3-3** below). ~~The Biological Resources Report and the Protected Tree Report surveyed 0.74 acres to the south that includes the planned (paper) street (Hacienda Drive), and parcels owned by Harvard-Westlake that are not part of the Development Site.~~

~~The survey area is larger than the Development Site because initially, improvements to Coldwater Canyon Avenue, and the planned but never developed street (Hacienda Drive), were contemplated that could have impacted the planned street (Hacienda Drive) and lots owned by Harvard-Westlake south of the Development Site. These improvements are not proposed, in part, in order to minimize impacted area.~~

Table 3.3-3 below indicates the anticipated impacts to the habitats within the survey area. ~~A small impact (0.10 acres) to offsite oak/walnut woodlands could occur along the planned street (Hacienda Drive), on the lot at the end of Potosi Avenue that was recently acquired by Harvard-Westlake and on approximately 350 square feet of adjacent open space land owned by the Conservancy. These off-site areas could be impacted because they are within 10 feet of the construction limits (although not within the construction limits). In addition approximately 450 square feet of disturbed area could be impacted at the house owned by Harvard-Westlake at the end of Potosi.~~

TABLE 3.3-3: PLANT COMMUNITY IMPACTS *

Plant Community	Acres Present	Acres Impacted
Southern live oak/southern walnut woodland	3.33 ~~2.97~~ *	1.43 ~~0.95~~
Offsite oak/walnut woodland**	NA	0 ~~0.10~~
Ruderal	0.34 ~~0.33~~	0.14 ~~0.12~~
Landscaped/disturbed	3.16 ~~2.92~~	2.86 ~~2.79~~
TOTAL	6.83	4.43

* ~~The biological survey area included 0.74 acres not within the Development Site (all but 0.01 acres is Southern oak/southern walnut woodland; 0.01 acres is landscaped/disturbed).~~ The ~~survey area~~ Development Site and biological surveys now coincide with and include~~s~~ property south of the ~~Development Site: the~~ paper street (Hacienda Drive) ~~immediately south of the Development Site and the two parcels owned by Harvard-Westlake located south of Hacienda, although not the parcels recently acquired by Harvard-Westlake at 3680 Potosi~~.
** There are now no off-site impacts. ~~The offsite impacts are as a result of proximity to the Development site – these are areas within 10 feet of construction limits. The areas are: 1) on the planned street Hacienda Drive (which is bordered on both sides by property owned by Harvard-Westlake) and on a lot (at the end of Potosi Avenue) that is owned by Harvard-Westlake as well as approximately 350 sq. ft. of open space land in the Coldwater Canyon Open Space, owned by the Mountains Recreation and Conservation Authority.~~
Note that acreages impacted ~~have been updated since preparation of the Biological Resources Technical Report in order to account for~~ include 15 feet of clear area atop retaining walls as required by the City as well as a 10-foot buffer.
SOURCE: ~~Appendix D.1, p 20~~ Appendix D.4 and IDG Parkitects, Inc., 2015

Southern Oak Woodland/Southern Walnut Woodland. The Project would impact 1.43 acres of the existing 3.33 acres of Southern Live Oak Woodland/Southern Walnut Woodland. Impacts to 1.43 ~~1.05~~ acres of oak and walnut woodland would be considered significant because both oaks and walnuts are important parts of the regional ecosystem and because both resources are protected by local and state regulations. Of the 338 ~~315~~ protected trees inventoried on the Development Site and adjacent property, 147 ~~129~~ would be removed (15 of which are deemed dead, consisting of 2 oak and 13 walnut trees), 20 ~~26~~ would sustain permanent encroachment, and 171 ~~160~~ would not be impacted. Of the trees to be removed 13 ~~12~~ are oaks and 134 ~~117~~ are walnuts. The Project would encroach on 6 oaks and 14 ~~20~~ walnuts. Therefore, ~~Impacts~~ impacts to oak trees and walnut trees and the woodland habitat would be significant.

As previously indicated, a Protected Tree Report was prepared for the ~~site~~ Development Site, and subsequently updated to account for the expansion of the Development Site and additional clear area (requested by the City) atop the proposed retaining walls see **Appendices D.2A,** ~~**Appendix**~~ **D.2B** and **D.3**. The updated Native ~~Protected~~ Tree Report ~~(update for the 2013 plan)~~ identifies the species and diameter at breast height (dbh) for each Protected Tree within the survey area (several trees have multiple trunks with different diameters) as well as the overall grade of each tree (A = Outstanding; B= Above Average; C = Average; D = Below Average/Poor; F = Severe Decline/Dead). **Table 3.3-4** summarizes number of trees to be removed by grade.

TABLE 3.3-4: TREES TO BE REMOVED BY TYPE AND GRADE

Species	No. of Species Surveyed	No. of Species Removed	Removal No. & % by Grade				
			A	B	C	D	F
So. Ca. Black Walnut	~~271~~ 273	~~117~~ 134	0 / 0%	~~3 / 3%~~ 3 /2 %	~~31 / 26%~~ 30 / 22%	~~83 / 71%~~ 88 / 66%	0 / 0% 13 / 10%
Coast Live Oak	44 65	~~12~~ 13	0 / 0%	~~6 / 50%~~ 3 / 23%	~~4 / 33%~~ 6 / 46%	~~2 / 17%~~ 2 / 15%	0 / 0% 2 /15%
TOTALS	~~**315**~~ **338**	~~**129**~~ **147**	**0 / 0%**	~~**9 / 7%**~~ **6 / 4%**	~~**35 / 27%**~~ **36 / 24%**	~~**85 / 66%**~~ **90 / 61%**	~~**0 / 0%**~~ **15 / 10%**

SOURCE: Comparison of Protected Tree Dispositions based on the ~~Revised 2015 Plan~~ Native Tree Report (see ~~**Appendix D.2A**~~ **Appendix D.3**)

Ruderal. Project implementation would result in the conversion of 0.14 ~~0.12~~ acre of the existing 0.34 acres ~~of~~ ruderal habitat, consisting mostly of castor bean, a noxious weed. This impact would be less than significant because ruderal habitats are abundant.

Ornamental Landscape/Disturbed. Implementation of the Proposed Project would result in the elimination of 2.86 ~~2.79~~ acres of the existing 3.16 acres of ornamental landscape vegetation and previously disturbed portions of the Development Site. Though landscape vegetation may provide some habitat value to native species such as some of the species noted above as potentially present or observed on the Development Site, these species are generally well acclimated to urban and suburban environments and the loss of this habitat is not considered significant. Impacts to disturbed areas would be less than significant**.**

Wildlife

Immediate Impact. The immediate impact of Project implementation would be that construction activity would disturb all wildlife in the vicinity. Species of low mobility, particularly burrowing reptiles and mammals, would probably be eliminated by Development Site preparation. Upon Project completion some wildlife species may return to the remaining natural habitat on the Development Site. Among the native members of the southern California fauna known for their ability to thrive near human habitation are the southern alligator lizard, coyote, raccoon, striped skunk, and several bird species including the northern mockingbird, mourning dove, scrub jay, bush tit, and house finch.

Long-Term Impact. Other species can be expected to move to adjacent areas of similar habitat. Displaced wildlife, from this and other projects in the vicinity, will be forced to relocate to remaining open space areas of similar habitat in the area. Wildlife that does emigrate is subject to higher mortality by predation while in unfamiliar surroundings. Indirectly, wildlife populations in the surrounding area would be affected adversely by loss of available habitat within the ~~Project~~ Development Site as resident wildlife species are displaced by development. This displacement would cause temporary increased stress on nearby wildlife populations as competition for food, water, and nesting sites increased. As the area maintained as natural undeveloped land diminishes, greater competition for resources will occur and individual mortality will result within the displaced wildlife population. As a result of the encroaching urbanization in the Santa Monica Mountains, remaining natural open space areas would increase in wildlife habitat value, relative to surrounding areas, as foraging and nesting areas and wildlife movement corridors become increasingly scarce. As discussed under Wildlife Movement Corridors/Habitat Linkages above, the Project is on the periphery of an open space area; substantial interference with wildlife movement/migration corridors to the extent that the Project would diminish the chances for long-term survival of any sensitive species is not anticipated because the Development Site is located at the east edge of the northern end of a finger or peninsula of open space within surrounding suburban development. Some interference with habitat such that normal species behaviors are disturbed (as a result of noise and nighttime lighting) is anticipated, however not to the degree that the Project could diminish the chances for long-term survival of a sensitive species. This impact is not considered significant.

The Project would include only locally native species in the landscaping around the Proposed Project. This landscaping could provide some replacement habitat for wildlife displaced by the Project. The habitat value of the landscaping would be less than that of naturally occurring habitat because of its proximity to the Project and because the extent of the landscaping would be less than the habitat removed and it would be more fragmented. ~~could provide new habitats that could attract some fauna not currently present, as well as increasing habitat value for some species present or expected onsite. These would principally be introduced species or highly adaptive native species, which are tolerant of human disturbance. Most of the introduced species are considered undesirable or pests. Among those species that might experience a population increase caused by the altered environment are the Norway rat, house mouse, European starling, and house sparrow. Eventually, the more aggressive of these undesirable species will displace locally native species resulting in a decreased diversity among locally native wildlife species.~~

~~Some plant species commonly used in landscaping are highly invasive and detrimental to local habitats and wildlife. These species frequently “escape” from yards and other intentionally landscaped areas and become established in native habitat areas. Because there are few, if any, natural control mechanisms, such as predators, the nonnative species eventually displace locally native plants. Native wildlife is not adapted to the nonnative plant community and uses it much less than the native community it replaced. Thus the spread of invasive exotic plants results in a decreased diversity of locally native plants and wildlife in the area.~~

Night Lighting. Night lighting may be detrimental to animals in nearby natural areas for a variety of reasons. These include disruption of circadian rhythms and avoidance due to light sensitivity in species with exceptional night vision. Some insectivorous species benefit from night lighting because it attracts and concentrates large numbers of insects for feeding purposes. Anticipated lighting levels on adjacent areas are discussed in detail in Section 3.1 Aesthetics. As shown on **Figure 3.1-26**, direct glare spillover lighting levels on the on-site open space (as well as further west in off-site open space areas) west of the Parking Structure is anticipated to be negligible (0.0 footcandles). The typical net effect of lighting is that adjacent areas are utilized by wildlife to less than their fullest extent. As noted above, some interference with habitat such that normal species behaviors are disturbed as a result of nighttime lighting is anticipated, however not to the degree that the Project could diminish the chances for long-term survival of a sensitive species because mitigation measures reducing the hours of lighting and minimizing spillover will be implemented such that spillover lighting would be minimal (see Section 3.1 Aesthetics for a discussion of future lighting levels off-site).

Noise. The Development Site is located along Coldwater Canyon Avenue, a tremendously heavily travelled roadway. It is also surrounded by residential development and a school. The existing ambient noise levels on the Development Site reflect these adjacent land uses. Additional noise introduced by the Project may somewhat alter the behavior of some wildlife species that utilize the Development Site. However, any wildlife using the Development Site is already acclimated to the suburban environment and the adjacent roadway. Alterations in wildlife behavior based on noise are expected to be minimal.

Sensitive Biological Resources

Plant Species

Oak and Walnut Woodland. As previously noted, impacts to ~~1.05~~ 1.43 acres of oak and walnut woodland would be considered significant because both oaks and walnuts are important parts of the regional ecosystem and because both resources are protected by local and state regulations. Of the 338 ~~315~~ protected trees inventoried for the Project, 147 ~~129~~ would be removed, 20 ~~26~~ would be encroached upon, and 171 ~~160~~ would not be impacted. Of the trees to be removed 13 ~~12~~ are oaks and 134 ~~117~~ are walnuts. The Project would encroach on six oaks and 14 ~~20~~ walnuts. (See the Protected Tree Report, Update Letter and Native Tree Report in **Appendix D.2A, Appendix D.2B** and **Appendix D.3**.)

Mariposa Lily. Of the 33 other sensitive plant species with the potential to occur in the Project area, only the Plummer's mariposa lily would potentially occur on-site. The Plummer's mariposa lily could occur in the nonnative grassland portion of the ruderal habitat in the proposed area of direct impact (grading area). However, this area consists of less than 1,000 square feet and if the species did occur there only a few individuals would likely be affected. This impact may be considered locally important but would not rise to the level of significance in accordance with CEQA guidelines.

Wildlife Species

Reptiles. Of the reptile species considered sensitive by resource management organizations, the western coastal western whiptail and San Bernardino ringneck snake, are likely to occur on the site in limited numbers. The whiptail would utilize the disturbed portions of the ~~site~~ Development Site as well as the natural habitats present. While the San Bernardino ringneck snake species is quite elusive ~~and would probably not suffer~~ it could suffer direct impacts as a result of ~~site~~ Development Site development as the oak-walnut woodland would be impacted. ~~best habitat for this species is not proposed for development~~. These species are not specifically protected, and this impact would not be in violation of the ~~Endangered Species Act~~ ESA or the CDFG Code. However, according to CEQA, the reduction in numbers of a species that has become sensitive as a result of previous human impacts is considered significant. Therefore, given that the San Bernardino ringneck snake and coastal western whiptail are likely present on-site and given the disturbance to 1.43 acres of oak-walnut woodland and 2.86 acres of disturbed area, the impact to these two species is considered significant.

Nesting Birds. Because the habitat proposed for removal is locally native and is known to be occupied by several local bird species, it is assumed that if this habitat were removed during the spring and summer nesting season, nest loss or nesting failure would occur. California Fish and

Game Code and the Federal Migratory Bird Treaty Act provide one additional level of protection for birds that may nest on the site. These laws make it illegal to take any bird nest. Take is usually interpreted as causing nesting failure. If land clearing were to occur between February and August (inclusive), without mitigation, the assumed reduction in avian nest success would be significant.

Cooper's Hawk. The Cooper's Hawk is primarily a bird predator and generally forages in oak and riparian woodlands, but in recent years the species has been breeding successfully in suburban environments with mature trees. Most of the habitat for the species would be preserved onsite. The loss of 1.43 ~~1.05~~ acres of this habitat is not significant to the species, especially given that mitigation is required in accordance with the LAMC.

Other Sensitive Bird Species. Three sensitive bird species utilizing the oak/walnut woodland (see **Table 3.3-2**) would be directly impacted by loss of habitat resulting from implementation of the Proposed Project. Individual mortality of birds is unlikely and impacts to habitat are minor and would be less than significant to the species in question because the birds are able to move to areas of similar habitat. Additionally, mitigation for the oaks and walnuts lost will eventually replace that habitat lost eliminating the long-term cumulative impacts from loss of habitat.

CUMULATIVE IMPACTS

The Project would result in the loss of 1.43 acres of oak/walnut woodland. The walnut trees are generally in poor condition (as a result of the TCD), but nonetheless loss of this area to development would contribute to cumulative loss of this habitat as well as to a cumulative impact on the sensitive species that forage in this habitat. The Project would contribute to general ongoing encroachment on to open space resources in the City of Los Angeles; open space resources are limited and land within the City is increasingly in demand for development purposes. The southern 3/4 of the Development Site is within the "Desirable Open Space Special Boundary" (see Section 3.6 Land Use for additional discussion) ~~The site is designated Open Space~~ and the Development Site is immediately adjacent to land owned by the Santa Monica Mountains Conservancy. ~~While this impact would be adverse, with mitigation~~ The Project's impact to oak/walnut woodland and associated sensitive species (primarily birds) that forage therein ~~would not result in a~~ are considered to be cumulatively considerable contributions to ~~a cumulative~~ significant impacts on 1) the sensitive oak-walnut woodland habitat and 2) associated sensitive species.

REGULATORY COMPLIANCE MEASURES

Impacts to habitats and plant communities, in particular, the oak/walnut woodland would be significant, however, implementation of the following **RC-BIO-1**, **PDF-BIO-**1 and **BIO-1** would reduce impacts on protected trees and many biological resources to a less than significant level. However, impacts to coastal western whiptail and San Bernardino ringneck snake and cumulative impacts to oak/walnut woodland would remain significant., ~~to a less than significant level:~~

RC-BIO-1: Oak/walnut woodland habitat will be mitigated in accordance with LAMC requirements. This mitigation will, by definition, reduce the level of impacts to less than significant. The ~~Protected~~ Native Tree Report for the Project indicates that the trees lost due to Development Site development will be replaced at a 4:1 ratio with tree species and size to be as determined to be acceptable by the City. The ~~Protected~~ Native Tree Report shall be updated prior to approval of a removal permit. The applicant shall comply with the recommendations of the ~~protected~~ Native Tree Report as may be amended by the Advisory Agency and/or Urban Forester. The following list of recommendations and mitigation measures is from the Protected Tree Report and Native Tree Report (see **Appendices D.2B** and **D.3**):

The following recommendations apply to the Project as a whole, pertinent to all protected trees:

2.a The applicant shall be responsible for notifying the Advisory Agency and/or the City Forester of any changes in the scope of the work and shall ensure that all work is performed in accordance with applicable ordinances, permits, and procedures. Work performed within the drip line of the trees shall be preceded by not less than 48 hours notice to the City Forester and the Project's Arborist (Certified/Registered Arborist).
2.b Equipment, materials, and vehicles shall not be stored, parked or operated within the drip line of a protected tree.
2.c Removal of the natural leaf mulch within the drip line of the protected trees onsite is prohibited except where absolutely necessary AND as approved by the Project's Arborist.
2.d All trees not approved for encroachment shall be fenced prior to commencement of grading operations, and shall remain fenced until the City Forester approves removal of fencing.
2.e Any pruning, including dead wooding, shall be performed in compliance with the latest ANSI pruning standards by a certified arborist (or certified tree worker) or under direction of a certified arborist. Smaller limbs should be tied back out of the way to avoid unnecessary pruning for equipment clearance.
2.f Within 10 working days of completion of the work approved under this permit, the tree consultant shall provide a project certification letter to the City Forester. The applicant shall be responsible for notifying and coordinating all conditions with the City Forester and the Project's Arborist.

Mitigation for Tree Removals

Removal of trees shall be mitigated for according to the City of Los Angeles Municipal Code 17.05 §R (4 & 5) as amended by Ordinance Number 177404, effective 4/23/06, and to the satisfaction of the City's Chief Forester (Bureau of Street Services, Forestry Division), and the Board of Public Works. Current Board of Public Works policy has increased the minimum requirement for protected tree replacement to 4:1. The Forestry Division will determine the final stock size and locations of mitigation plantings.

Mitigation recommendations for the protected oak and walnut trees are outlined below. 13 ~~12~~ oak trees and 134 ~~117~~ Southern California black walnut trees are proposed to be removed by the Harvard-Westlake ~~School~~ Parking ~~Structure Project~~ Improvement Plan, of which 2 oak trees and 13 walnut trees are deemed dead.

2.g Given the significantly diseased condition of most of the walnut trees to be removed and the fact that there is currently no treatment available for the "thousand cankers disease" from which they suffer, we do not recommend the planting of any new Southern California black walnuts. If treatment becomes available, or new research indicates a resilience to the disease, this recommendation may be revised in the updated tree report to be prepared prior to the approval of the final tree removal permit.
2.h To comply with the 4:1 replacement ratio, at least 528 ~~516~~ mitigation trees should be planted on-site in the remaining open space areas of the Harvard-Westlake property. See Appendix IV of the Protected Tree Report for the Conceptual Mitigation Planting Plan. Color-coding on the plan calls out areas potentially suited for the

recommended mitigation trees for the site: Coast live oak (Q. agrifolia), California scrub oak (Quercus berberidifolia), western sycamore (platanus racemosa), and Mexican elderberry (Sambucus mexicana). If sufficient space is not available to accommodate all of the required mitigation trees on-site, off-site mitigation may be required. Off-site mitigation, if necessary, will comply with the requirements and guidelines for replacements as outlined in the City of Los Angeles Municipal Code 17.05 §R (4 & 5) as amended by Ordinance Number 177404, effective 4/23/06, and to the satisfaction of the City's Chief Forester (Bureau of Street Services, Forestry Division), and the Board of Public Works. Off-site mitigation may include, but not be limited to, payment of in-lieu fees, acquisition of appropriate habitat with a specific number of existing trees for preservation, planting mitigation trees at an off-site location, or any combination of these measures.

2.i Mitigation trees of the species called out herein may also be planted in the newly landscaped areas of the Project as approved by the City Forester.

2.j City guidelines for mitigation trees call for "15-gallon specimen[s] measuring one inch or more in diameter at a point one foot above the base and not less than seven feet in height, measured from the base." However, given that the majority of the removal trees are walnuts in poor condition that should not be replaced "in-kind", it is recommended that a range of smaller container sizes (such as one to five gallon) be allowed for mitigation trees in this Project. Multi-stemmed trees should be allowed for mitigation purposes. The City Forester shall determine the final container sizes acceptable for each replacement species.

2.k Mitigation trees should be planted in groups, or clusters, of three to five trees in a circular or triangular pattern to mimic natural groups of trees. The City Forester shall determine the final placement of each replacement tree and/or group of trees on a Final Mitigation Planting Plan.

2.l The replacement trees must be planted by a Tree Expert, as defined by the City of Los Angeles Municipal Code, and carefully planted to maximize likelihood of survival.

2.m All plantings will be generously watered immediately after planting and maintained for three years from the date of planting.

2.n The Project applicant shall post a bond acceptable to the City Engineer to guarantee the survival of these replacement trees and shall provide protected tree maintenance information to the landscape maintenance contractor responsible for the mitigation trees.

2.o The applicant shall provide a copy of the final tree removal permit conditions of approval to the Project's Arborist.

2.p The Project's Arborist shall review the final landscape plan for compliance with the recommendations of this report and the final tree removal permit conditions of approval.

2.q The Project's Arborist shall be notified within one week prior to the commencement of mitigation tree planting.

2.r Within 30 days of all mitigation trees being planted, the Project's Arborist shall inspect the plantings with the landscape contractor and an "As-Built" Mitigation Planting Plan shall be prepared by the Project's Arborist and/or landscape architect on the Landscape & Irrigation Plan. This "as-built" plan shall be used to document the baseline placement and irrigation status of the mitigation trees for future monitoring visits by the Project's Arborist and will be used for the first mitigation trees monitoring report.

2.s Three years of mitigation tree monitoring shall be documented by the Project's Arborist to the Applicant and the City Forester through a number of regularly scheduled site inspections and reports. The number and sequence of inspections over the three year period will be determined at the discretion of the City Forester in the final tree removal permit conditions of approval.

2.t Walnut trees that are not impacted by the Project, but die from ~~thousand cankers Disease~~ TCD during the course of the Project construction and post-project monitoring should be documented in the monitoring reports and recommendations for their removal may be made in the monitoring reports. Mitigation for the removal of dead walnut trees with confirmed TCD should not be required. This scenario should be addressed in the Project's tree removal permit conditions to the satisfaction of the City Forester and the Board of Public Works. All California walnut trees infected with the TCD that are removed from the project site shall be disposed of properly to reduce the chance of spread to other trees. Proper disposal of material from affected trees includes burning or burying branches and smaller diameter wood as soon as possible. Persons salvaging wood and branches off the Project Site can spread the insect carrier and fungus to new areas. Tools and equipment coming into contact with infected trees shall be sanitized before reuse; this process shall be monitored by a qualified professional.

~~Protection~~ Mitigation for Encroachment and Preservation of Trees

~~One hundred and sixty~~ ~~(~~191 ~~160)~~ protected trees will be preserved onsite; which includes ~~twenty-six (~~20 ~~26)~~ that would be subject to minor encroachment within the outer edges of their drip line, ~~including~~ consisting of 14 ~~20~~ walnuts and six oaks. Coast live oaks have a "good" relative tolerance to development impacts, but California black walnut has a "poor" relative tolerance and can "die slowly following even minor root injury or changes to water table…[and]…crown reduction pruning may be fatal" (Methany and Clark, 1989). Therefore, special care must be taken during Project implementation to minimize impacts to the root zones and canopies of these trees. Implementation of the following measures is recommended.

2.u All work in the drip line of the trees approved for encroachment must be done using hand implements only; the use of mechanized tools is prohibited except where absolutely necessary AND as approved by the City Forester.

2.v All work conducted within the drip line of the trees shall be performed in the presence of the Project's Arborist. The drip line shall commence from the outer edge of the tree canopy and extend inwards to the trunk of the tree.

2.w Root-pruning within the drip line shall be reduced to the minimum amount that is absolutely necessary. All roots pruned shall consist of clean, 90º-angle cuts utilizing sharp hand tools and shall not be sealed unless directed by the City Forester. Any major roots (2" or greater in diameter) encountered shall be preserved to the extent possible, wrapped in moist burlap, until the soil is replaced. Soil shall be replaced as soon as possible around preserved roots.

2.x Upon completion of the work associated with this permit, a three to four-inch layer of certified mulch is recommended to be placed on the ground within the drip line of the encroachment trees (keep mulch six inches away from the trunks). Where feasible, the native leaf litter should be retained and used as the mulching material.

2.y All protected trees that have encroachment within their drip lines, or that end up being shaded out by new buildings, shall be monitored for possible failure as a result of Project implementation.

2.z The applicant shall be responsible for the monitoring and maintenance of the encroachment trees for a minimum of three (3) years. If any of the protected trees *should fail as a result of encroachment by the Project, they shall be replaced at a 4:1 ratio in accordance with the current policy of the City of Los Angeles Board of Public Works, or as approved by the City Forester at the time of replacement. The applicant shall be responsible for the monitoring and maintenance of any replacement mitigation trees for a minimum of three (3) years. If the replacement trees die during the three-year period, the applicant shall plant new replacement trees and the three-year monitoring period shall begin again from the date of that planting.*

Other

2.aa The applicant shall comply with all recommendations of the Registered Consulting Arborist contained in the Native Tree Report.

PROJECT DESIGN FEATURE

PDF-BIO-1: The Project as proposed specifies the retention of approximately 2.29 ~~2.19~~ acres of native vegetation (oak woodland and other native species) on the Development Site (that shall function as a natural conservation area) with an additional 2.08 ~~1.12~~ acres of new landscaping and permeable area (1.86 acres of landscaping and 0.22 acres of permeable area in the debris basin). To the extent that this area remains relatively free of human disturbance, it will continue to function as a component of the natural ecology of the area except in the immediate vicinity of the new development. Project landscaping shall be comprised of native vegetation.

MITIGATION MEASURES

MM-BIO-1: a. In order to ensure that direct impacts to habitats are limited to those proposed, temporary fences or other marking devices shall be placed at the limits of grading prior to the onset of grading to guide equipment operators and keep them within the limits of grading and therefore ensure that impacts do not extend beyond the construction site. Earth-moving equipment shall be confined to areas within the designated daylight grading area at all times during construction.

b. In coordination with the City's Urban Forrester and the Fire Department, a qualified biologist shall prepare a plan to identify appropriate plantings and plant communities to be used in the ~~2.19~~ 2.29 acres of the Development Site that is to remain in native vegetation. This area may include buffers of native vegetation adjacent to the Santa Monica Mountains Conversancy property. The plan shall include brush, boulder, and salvaged tree piles, reptile/underground mammal cover boards, and/or potential bat or other roosting habitats as appropriate.

c. A qualified biologist shall use reasonable efforts to salvage seeds from on-site Protected Trees that are removed to be used on-site to mitigate loss of Protected Trees.

d. Brush Clearance: a biologist shall supervise all LAFD-required brush clearance activities. For purposes of complying with LAFD requirements the following species shall be considered native trees (no matter what size): laurel sumac, elderberry, oak, toyon, walnut, and sugar bush; no live material shall be removed from any native tree.

e. Harvard-Westlake School shall post signs around the native vegetation area indicating: "No Trespassing – Natural Habitat Area."

No mitigation is required for the loss of the ruderal habitat on the site.

No mitigation is required for impacts to ornamental landscape and disturbed areas.

No mitigation is required for the loss of relatively common wildlife species. Project Design Feature PDF-BIO-1 provides preservation of the portions of the site not directly impacted by the Project. The following measure would avoid impacts to larger wildlife that could result from falls from atop retaining walls:

MM-BIO-2: A~~n~~ three ~~eight~~-foot-tall ~~(total average height) cable retention system (to prevent rock fall) combined with a~~ green chain link fence (with undulating top), with adjacent appropriate native plantings shall be constructed atop retaining walls to prevent wildlife from falling. In addition, all entrances to the garage shall be equipped with roll down doors that shall be closed at night to prevent wildlife from entering the Parking Structure. All fencing used in the Development Site shall be constructed with materials that are not harmful to wildlife. Prohibited materials include, but are not limited to, spikes, glass, razor, or barbed wire. All hollow fence caps shall be capped; fences with top holes shall be sealed to prevent the entrapment of bird species and other wildlife.

To reduce the impact of exotic ornamental landscaping on local habitats and locally native wildlife, the use of native plants in landscaping is encouraged:

MM-BIO-3: To reduce the invasion of aggressively invasive exotic plant species into the Santa Monica Mountains no landscaping for the Project shall utilize any species found on the "CalEPPC List" -- more formally known as "Exotic Pest Plants of Greatest Ecological Concern in California." Furthermore, if any species found on this list “volunteer” in the Project area, whether in individual lots or common areas, they shall be removed immediately upon discovery. The current list can be found on the website: http://groups.ucanr.org/ceppc/Pest_Plant_List/

The potentially adverse effects of night lighting on surrounding open space areas will be mitigated to a less than significant level by the following or equivalent measure to reduce light on the open space areas (see also Mitigation Measures for light and glare in Section 3.1 Aesthetics):

MM-BIO-4: Shielded directional lighting, including, as appropriate, internal silvering of the globe or external opaque reflectors to direct light away from natural areas, and motion sensing technology that cause lights to only be on when required by the presence of people. All lighting adjacent to natural areas shall be low luminescence, directed downwards or towards the structure and shall include shielding to the extent necessary to prevent direct artificial illumination of natural areas and to protect nocturnal biological resources, as determined to be appropriate by a qualified biologist.

See Regulatory Compliance measure **RC-BIO-1**, Project Design Feature **PDF-BIO-1** and Mitigation Measure **MM-BIO 1** for measures that address the loss of oaks and walnuts.

To offset potential impacts to the Plummer’s mariposa lily the following measure will be implemented:

MM-BIO-5: Surveys for Plummer’s mariposa lily shall be conducted during the May-July flowering period for the species. Any Plummer’s mariposa lilies located in the impact area will be relocated to suitable habitat outside the impact area.

To reduce the effect of direct mortality to wildlife (especially sensitive reptiles present on the Project Site), the following measure will be implemented:

MM-BIO-6: A wildlife salvage program shall be conducted within 14 days prior to the commencement of grading on the Project Site. The salvage effort will be conducted by a qualified wildlife biologist with experience capturing and handling native wildlife. Wildlife captured will be relocated to one of the local designated open space preserves. Additional salvage efforts shall be undertaken during initial clearing of the Project Site to remove species of low mobility. Salvaged wildlife shall be released into preserved open space areas as near to the Project Site as possible.

To protect birds on the ~~Project~~ Development Site the following measure will be implemented:

MM-BIO-7: All vegetation removal within the approved impact area will take place between September 1 and February 15, to the extent feasible. If construction takes place between February 15 and September 1, a preconstruction survey (by a qualified biologist) will be undertaken to identify any nests and any appropriate protective measures. This measure will protect any bird species from direct mortality as a result of Project construction and nest removal. It is assumed that bird species occurring on the site would leave the construction area at the onset of brush clearing. If construction begins before February 15, and proceeds continuously through the summer, weekly monitoring visits, by a qualified biologist will be made to determine if any birds are nesting in the remaining habitat onsite and if so whether they are being disturbed by construction activity. If any birds are found to be nesting, the biologist will determine if construction is reducing nesting success. If construction is found to be reducing nesting success, a buffer zone will be established within which construction will not occur until nesting is complete. The buffer zone shall be 500 feet for raptors and 200 feet for other bird species. If evidence of bats is identified during preconstruction surveys a bat expert shall be consulted and mitigation shall be implemented to ensure no significant adverse impacts to bats as determined by the bat expert. The biological monitor will be present on site during all grubbing and clearing of vegetation to ensure that activities remain within the Project footprint. The biological monitor will retain weekly monitoring reports for inspection upon request of the City during the grubbing and clearing of vegetation, and shall notify the Department of Building and Safety immediately if Project activities have the potential or do damage active avian nests.

No mitigation is required for less than significant impacts to the Cooper's hawk. Regulatory Compliance Measure **RC-BIO-1**, Project Design Feature **PDF-BIO-1** and Mitigation Measure **MM-BIO 1** address loss of habitat on the ~~project site~~ Project Site.

No mitigation measure is required for the less than significant impacts to other sensitive bird species utilizing oak /walnut woodland habitats. However, the impacts to this habitat will be addressed through **RC-BIO-1**, **PDF-BIO-1** and **MM-BIO-1**.

SIGNIFICANCE AFTER MITIGATION

Given that the San Bernardino ringneck snake and coastal western whiptail are likely present on-site and given the disturbance to 1.43 acres of oak-walnut woodland and 2.86 acres of disturbed area, the impact to these two species is considered significant after mitigation. With implementation of mitigation measures the potential for a Project-specific significant adverse impact upon other biological resources, including protected trees, would be reduced to a less than significant level. However, given cumulative encroachment and loss of oak/walnut woodland in the area, the Project is considered to make a cumulatively considerable contribution to a significant impact with respect to loss of this resource and impacts on sensitive species (primarily birds) that forage in oak-walnut woodland.

3.4 CULTURAL RESOURCES (ARCHAEOLOGICAL, PALEONTOLOGICAL AND HUMAN REMAINS RESOURCES)

This section analyzes potential impacts to cultural resources (paleontological and archaeological resources) that would result from implementation of the Proposed Project. A records search of the South Central Coastal Information Center (SCCIC) was prepared for the Project ~~area~~ site in March 2013. A paleontological records search of the Natural History Museum of Los Angeles County was also undertaken in March 2013. There is one vacant single-family ~~are no buildings on~~ home on the southern end of the Development Site, which is owned by Harvard-Westlake School ~~and no~~. This building has access from Potosi Avenue and would not be removed as part of the Project. No buildings on the Harvard-Westlake Campus would be impacted by the Proposed Project~~, therefore~~. Therefore historic resources ~~were focused out of the EIR in the Initial Study and~~ are not discussed in detail below, and the analysis contained in the Initial Study remains accurate.

This RDEIR section summarizes the findings of the following report contained in **Appendix H** of this RDEIR:

- Historical/Paleontological Records Search Results for the Harvard Westlake Parking Structure Project, WH Bonner Associates, March 2013

EXISTING CONDITIONS

Archaeological Resources

The Proposed Project would be located upon property that is substantially undeveloped. The Development Site includes one vacant house on Potosi Avenue, owned by Harvard-Westlake School, and ~~was previously developed with~~ pads where ~~two~~ four single-family homes~~, which~~ were previously located; two were removed after the 1994 Northridge Earthquake and two were demolished in 2011.

Archaeological Records Search

Prehistoric and historic archaeological sites exist throughout the City ~~of Los Angeles~~. Hunter-gatherers inhabited the region long before the arrival of Europeans. Remnants of their cultures continue to be found and documented. The project area lies within Gabrielino and Fernandeño ethnographic territories. The terms Gabrielino and Fernandeño refer to Native American groups historically associated with the San Gabriel and San Fernando Missions. These territories are generally believed to incorporate the watersheds of the Los Angeles, San Gabriel, and Santa Ana Rivers. They include the entire Los Angeles Basin, the coast between Aliso Creek and Topanga Creek and the islands of San Clemente, San Nicholas, and Santa Catalina.

A records search was conducted at the SCCIC in March 2013. The SCCIC records search included a review of all recorded archaeological sites within a ½ mile of the Development Site as well as a review of cultural resource reports on file. In addition, the California Points of Historical Interest (PHI), the California Historical Landmarks (CHL), the California Register of Historical Places (CR), the National Register of Historic Places (NRHP), the California State Historic Resources Inventory (HRI) the City of Los Angeles Historic Cultural Monuments (LAHCM), and the Canoga Park 7.5 U.S. Geological Survey (USGS) quadrangle map were reviewed. According to the records search:

1) No prehistoric archaeological sites have been recorded at or within a half-mile radius of the Development Site.

2) Four area-specific survey/excavation reports are on file with the SCCIC for the vicinity, none of which address the Development Site or vicinity.
3) No NRHP, HRI, CHL or CPHI properties are listed at or within a half-mile of the Development Site. The Harvard-Westlake ~~Upper School~~ Campus (across Coldwater Canyon Avenue from the Development Site) includes City ~~of Los Angeles~~ Historic-Cultural Monument No. 32, Saint Saviour's Chapel, listed in 1965. The chapel was built in 1914 at the original campus of the Harvard School at Western Avenue and Venice Boulevard. When the campus moved to its present Studio City location in 1937, the chapel was divided into 16 pieces and moved to the new campus.
4) Review of the 1926 Van Nuys, CA 6' USGS topographic quadrangle indicates the indirect Area of Potential Effect (APE) was minimally developed at that time with two roads and five scattered structures. The Development Site does not appear to have been developed in 1926.

The Development Site is rated low sensitivity with respect to archeological resources because of the absence of recorded archeological resources in the area.

Native American Heritage Commission

In response to the ~~Notice of Preparation~~ NOP the Native American Heritage Commission (NAHC) provided a list of Native American groups and individuals in the project vicinity.[1] The NAHC was contacted regarding a sacred lands search and they indicated that there are no sites in the vicinity.[2]

Paleontological Resources

Paleontological resources are fossilized remains of ancient environments, including fossilized bone, shell, and plant parts; impressions of plant, insects, or animals parts preserved in stone; and preserved tracks of insects and animals. Paleontological resources are best preserved in fine sedimentary rocks such as limestone and siltstone, but are also found in metamorphosed sedimentary rock such as shale, and other geologic units. Paleontological resources are valued for the information they yield about the history of the earth and its past ecological settings. In addition, fossils provide important chronological information that is used to interpret geological processes and regional history.

A paleontological records search was performed for the Development Site in March 2013 at the Natural History Museum of Los Angeles County. The results of the paleontological records search indicate that no paleontological sites/specimens have been recorded at or within one-half mile of the Development Site. The Development Site is underlain by Upper Miocene marine sedimentary sediments (MU), which are described as siltstones, siliceous shales, diatomaceous shales, sandstones, and conglomerates. Invertebrate marine fossils can occur in these deposits, but rarely are vertebrate fossil remains recovered. The Development Site is rated low sensitivity with respect to paleontological resources because of the absence of recorded vertebrate paleontological resources in the area or in underlying sediments.

Significant paleontological resources are defined as fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or important to define a particular time frame or geologic strata, or that add to an existing body of knowledge in specific areas, in local formations or regionally. Paleontological remains are accepted as non-renewable resources significant to our culture and, as such, are protected under provisions of the Antiquities Act of 1906 and subsequent related legislation, policies, and enacting responsibilities.

[1] Native American Heritage Commission Letter, April 24, 2013.
[2] David Singleton, Native American Heritage Commission, Communication August 13, 2013

In the State of California, fossil remains are considered to be limited, nonrenewable, and sensitive scientific resources.

REGULATORY FRAMEWORK

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) established the National Register of Historic Places (NRHP), which is maintained by the National Park Service (NPS) under the Department of the Interior, the Advisory Council on Historic Preservation, State Historic Preservation Offices, and grants-in-aid programs. Criteria for listing on the National Register include association with events, persons, history, or prehistory or embodiment of distinctive characteristics. These criteria are based on context (theme, place, and time), integrity (location, design, setting, materials, workmanship, feeling, and association), and, if a recent resource, exceptional importance.

The Secretary of the Interior's Standards for the Treatment of Historic Properties provides standards for rehabilitation, renovation, restoration, and reconstruction of historic properties, particularly for properties listed on the National Register of Historic Properties or historic properties that are potentially eligible for the National Register. In general, when a property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, preservation may be considered as a treatment. Rehabilitation is considered an option when repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time is not appropriate.

Other options included in the Secretary of the Interior's Standards include restoration, which generally applies when the property's design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods. Reconstruction applies when a contemporary depiction is required to understand and interpret a property's historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction.

Section 106 of the NHPA requires all Federal agencies to consult the Advisory Council on Historic Preservation before undertaking any act~~ivity~~ affecting a property listed on, or eligible for listing on the NRHP. The Advisory Council has developed guidelines for compliance with Section 106 to encourage coordination between lead agencies and cultural resource agencies.

State

California Environmental Quality Act

- 13 Public Resources Code, 21000 et seq. Requires public agencies and private interests to identify the potential adverse impacts and/or environmental consequences of their proposed project(s) to any object or site important to the scientific annals of California (Division 1, Public Resources Code: 5020.1[b]).

Guidelines for the Implementation of CEQA

- State CEQA Guidelines Sec. 15064.5(a)(3). Provides protection for historical (or paleontological) resources by requiring that they be identified and mitigated as historical resources under CEQA. The State CEQA Guidelines define historical resources broadly to include any object, site, area, or place that a lead agency determines to be historically significant.

State Office of Historic Preservation

The Office of Historic Preservation (OHP), through its State Historic Preservation Officer (SHPO) and the State Historical Resources Commission, implements state preservation law, and is responsible for maintaining the California Register of Historic Places (California Register) and for administering federally- and state-mandated historic preservation programs.[3] These programs include the California Historic Resources Inventory System (CHRIS), which uses the National Criteria for listing resources significant at the national, state, and local level. CHRIS consists of twelve information centers under contract to OHP to maintain a database of potential archaeological and historic resources, provide information on resources and surveys to the public, and to maintain and provide a list of consultants qualified to do historic preservation fieldwork in their area. In addition, OHP oversees the California Historic Landmarks and California Points of Historical Interest programs, and provides technical assistance to California's city and county governments.

California Register of Historic Resources

A resource may be listed in or eligible for listing on the California Register (CR) if it meets any one of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- It is associated with the lives of persons important to local, California or national history (Criterion 2).
- It embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).

Even without a formal determination of significance and nomination for listing on the CR, the lead agency can determine that a resource is potentially eligible for listing. According to OHP, integrity is one of the basic underlying criteria that all listings on the CR must meet. OHP states:

> "Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which a resource is proposed for eligibility. Alterations over time to a resource or historic changes in its use may themselves have historical, cultural, or architectural significance."

Although resources may not maintain enough integrity to be listed on the National Register of Historic Places, a resource may maintain enough integrity to be listed on the CR.

3 OHP is part of the California Department of Parks and Recreation (also known as State Parks).

Native American Heritage Commission

Section 50907.9 of the Public Resource Code and Section 7050 of the Health and Safety Code empower the Native American Heritage Commission (NAHC) to regulate Native American concerns toward the excavation and disposition of Native American cultural resources. Among its duties, NAHC is authorized to resolve disputes relating to the treatment and disposition of Native American human remains and items associated with burials. Upon notification of the discovery of human remains by a county coroner, NAHC notifies the Native American group or individual most likely descended from the deceased.

Local

Cultural Heritage Ordinance

In 1962, the City of Los Angeles created a comprehensive ordinance to address potential cultural resources in the City. As a part of the ordinance, the five-member Cultural Heritage Commission was created as the mayoral-appointed body that oversees the designation and protection of local landmarks. The City's Office of Historic Resources provides staff support to the Cultural Heritage Commission. The Cultural Heritage Commission has responsibility for designating as Historic-Cultural Monuments (HCMs) any building, structure, or site important to the development and preservation of the history of Los Angeles, the State, and the nation.

THRESHOLDS OF SIGNIFICANCE

In accordance with the L.A. CEQA Thresholds Guide~~lines~~, ~~the~~ a proposed project would have a significant cultural resources impact if:

- The project would cause a substantial adverse change in the significance of an archaeological resource. The analysis shall consider if any identified resources:
    1. Is associated with an event or person of recognized importance in California or American prehistory or of recognized scientific importance in prehistory;
    2. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;
    3. Has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind;
    4. Is at least 100-years-old and possesses substantial stratigraphic integrity; or
    5. Involves important research questions that historical research has shown can be answered only with archaeological methods.

- The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The analysis shall consider whether, or the degree to which, the project might result in the permanent loss of, or loss of access to, a paleontological resource; and whether the paleontological resource is of regional or statewide significance.

- The project would disturb any human remains, including those interred outside of formal cemeteries.

IMPACT ASSESSMENT

Archaeological Resources

Implementation of the Proposed Project is not anticipated to result in a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the CEQA Guidelines; nonetheless, mitigation measures are identified to ensure that in the event that unanticipated resources are encountered during excavation, impacts would remain less than significant.

No known archeological resources exist within the proposed Development Site. Based on the literature review, the Development Site is considered to have a low rating with respect to the potential to encounter archeological resources. In addition, a substantial portion of the Development Site proposed to be disturbed has already been subject to at least surficial disruption from previous activities on the Development Site (~~two~~ four single-family homes and construction laydown area). As such, any archeological resources that may have existed have likely been disturbed. The remainder of the Proposed Project, the pedestrian bridge, street improvements and improvements to the vehicular circulation and parking on the Harvard-Westlake Campus would be located on currently developed property.

While not expected, the potential exists that construction activities associated with the implementation of the Proposed Project could unearth undocumented resources. This could result in a potentially significant impact.

Paleontological Resources

Implementation of the Proposed Project is not anticipated to directly or indirectly destroy a unique paleontological resource or site; nonetheless, mitigation measures are identified to ensure that in the event that unanticipated resources are encountered during excavation, impacts would remain less than significant.

According to the Paleontological records search conducted for the Proposed Project, the Development Site is underlain by ~~Upper Miocene marine sedimentary sediments (MU)~~ MU, which are described as siltstones, siliceous shales, diatomaceous shales, sandstones, and conglomerates. Invertebrate marine fossils can occur in these deposits, but rarely are vertebrate fossil remains recovered. Therefore the Development Site is considered to have a low sensitivity rating with respect to the potential to find paleontological resources. While it is not expected, the remote potential remains for paleontological resources to exist. If these resources are disturbed, impacts would be potentially significant.

Project construction activities are not anticipated to result in the disturbance of human remains (including those interred outside of formal cemeteries). However, should remains be unexpectedly encountered, compliance with the identified mitigation measures would ensure that this impact remains less than significant.

No formal cemeteries are known to have occupied the Project area, so any human remains encountered would likely come from archeological or historical contexts. Human burials, in addition to being potential archeological resources, have specific provisions for treatment in Section 5097 of the California Health and Safety Code ~~(HSC)~~. Because no known archeological sites are present in the Project area and a large portion of the Development Site to be impacted has already been disturbed, the presence of human remains is a remote possibility. However, if remains are encountered, disturbing these remains could violate ~~PRC~~ Public Resources Code and ~~HSC~~ Health and Safety provisions, as well as destroy the resource.

CUMULATIVE IMPACTS

In the unlikely event that construction activities associated with the Proposed Project encounter unanticipated resources, the Project could contribute to the progressive loss of cultural resources and result in adverse cumulative impacts. If the project resulted in disturbance or destruction of unanticipated cultural resources, then it would result in a potentially significant adverse impact. However, mitigation measures have been identified that would avoid or reduce potential project-related impacts. These measures include evaluation by an archeologist and/or paleontologist as appropriate and compliance with their recommendations. Similar measures would be expected of other projects in the surrounding area. Consequently, the incremental effects of the Proposed Project, after mitigation, would not contribute to an adverse cumulative impact to paleontological resources.

MITIGATION MEASURES

MM-CUL 1: If any archaeological materials are encountered during the course of Project development, all further development activity shall halt and:

- The services of an archaeologist shall then be secured by contacting the South Central Coastal Information Center (657-278-5395) located at California State University Fullerton, or a member of the Society of Professional Archaeologist (SOPA) or a SOPA-qualified archaeologist, who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact.
- The archaeologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.
- The applicant shall comply with the recommendations of the evaluating archaeologist, as contained in the survey, study or report.

MM-CUL 2: Project development activities may resume once copies of the archaeological survey, study or report are submitted to:

SCCIC Department of Anthropology
McCarthy Hall 477
CSU Fullerton
800 North State College Boulevard
Fullerton, CA 92834

MM-CUL3: Prior to the issuance of any building permit, the applicant shall submit a letter to the case file indicating what, if any, archaeological reports have been submitted, or a statement indicating that no material was discovered. A covenant and agreement binding the applicant to this condition shall be recorded prior to issuance of a grading permit.

MM-CUL 4: If any paleontological materials are encountered during the course of project development, all further development activities shall halt and:

- The services of a paleontologist shall then be secured by contacting the Center for Public Paleontology - USC, UCLA, California State University Los Angeles, California State University Long Beach, or the Los Angeles County Natural History Museum - who shall assess the discovered material(s) and prepare a survey, study or report evaluating the impact.
- The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.

- The applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study or report.
- Project development activities may resume once copies of the paleontological survey, study or report are submitted to the Los Angeles County Natural History Museum.

MM-CUL 5: Prior to the issuance of any building permit, the applicant shall submit a letter to the case file indicating what, if any, paleontological reports have been submitted, or a statement indicating that no material was discovered. A covenant and agreement binding the applicant to this condition shall be recorded prior to issuance of a grading permit.

MM-CUL 6: In the event that human remains are discovered during excavation activities, the following procedure shall be observed:

- Stop immediately and contact the County Coroner:
  1104 N. Mission Road
  Los Angeles, CA 90033
  323-343-0512 (8 a.m. to 5 p.m. Monday through Friday) or
  323-343-0714 (After Hours, Saturday, Sunday, and Holidays)
- The coroner has two working days to examine human remains after being notified by the responsible person. If the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission.
- The Native American Heritage Commission will immediately notify the person it believes to be the most likely descendent of the deceased Native American.
- The most likely descendent has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- If the descendent does not make recommendations within 48 hours the owner shall reinter the remains in an area of the property secure from further disturbance, or;
- If the owner does not accept the descendant’s recommendations, the owner or the descendent may request mediation by the Native American Heritage Commission.
- *Discuss and confer* means the meaningful and timely discussion careful consideration of the views of each party.

SIGNIFICANCE AFTER MITIGATION

Impacts are anticipated to be less than significant with incorporation of mitigation measures included above.

3.5 GEOLOGY, SOILS AND HYDROLOGY (INCLUDING STORM WATER DRAINAGE)

This section describes the existing geology and soils conditions on the Project Site, identifies potential environmental impacts that could occur, and recommends mitigation measures as appropriate to reduce or avoid any impacts. The information and analysis in this section is based on the following reports contained in the appendices to this RDEIR:

- Final Geologic and Soils Engineering Report, Response to City of Los Angeles Correction Letter, Proposed Parking Structure and Pedestrian Bridge, Byer Geotechnical, Inc., May 18, 2015 (**Appendix E.1**)
- Third-Party Geologic and Soils Engineering Review, Grover-Hollingsworth and Associates, October 23, 2015 (**Appendix E.1a**)
- City of Los Angeles, Department of Building and Safety, Geology and Soils Report Approval Letter, July 21, 2015 (**Appendix E.1b**)
- Hydrology Study, KPFF, ~~August 12, 2013~~ April 10, 2015 (**Appendix E.2**)
- City of Los Angeles Low Impact Development Plan (which includes measures to comply with Standard Urban Storm Water Mitigation Plan -- SUSMP), KPFF Consulting Engineers, April 10, 2015, ~~August 12, 2013~~ **(Appendix E.3**).

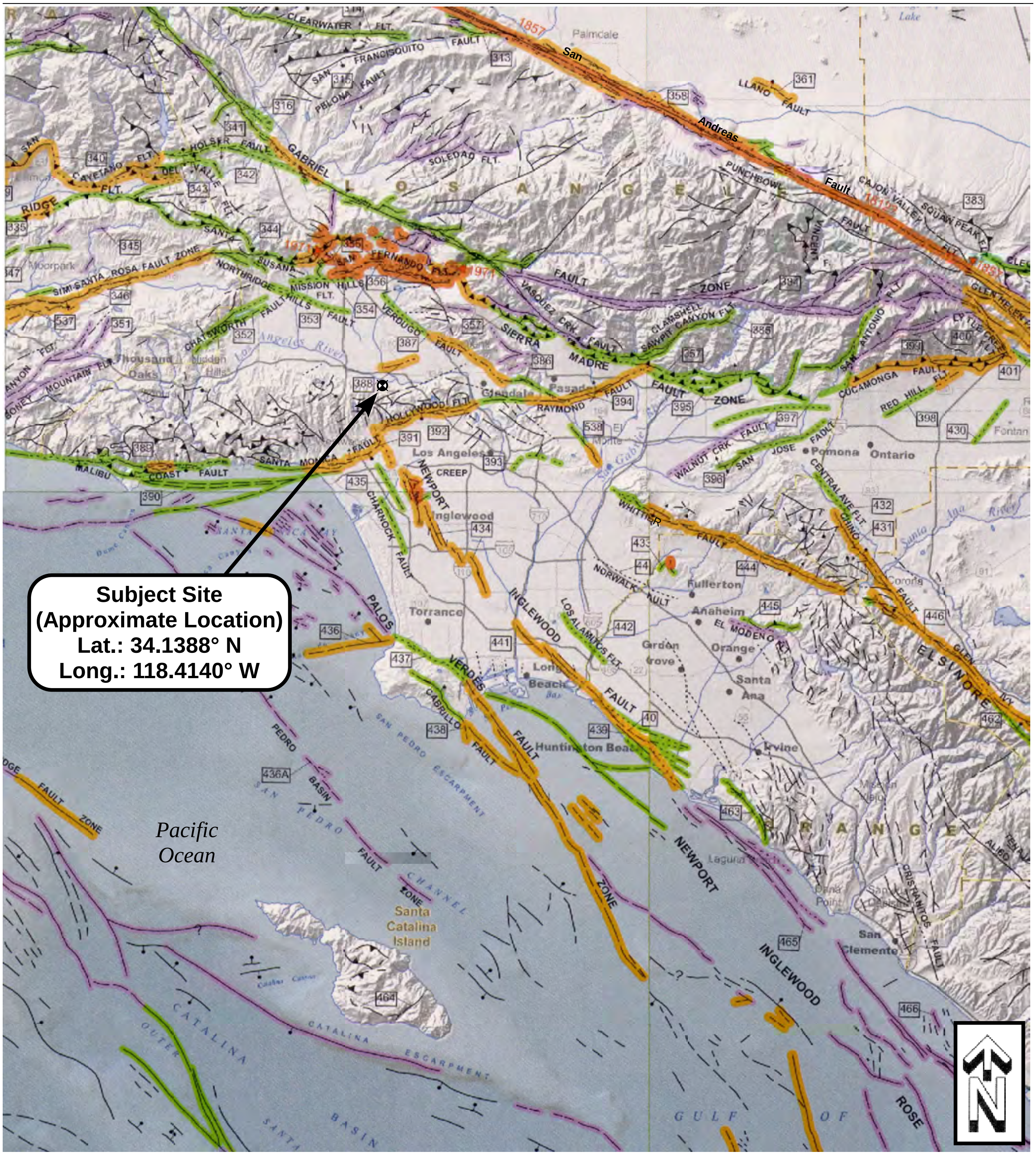
EXISTING CONDITIONS

Regional Setting

The ~~proposed~~ Project Site is located within a southern portion of the San Fernando Valley, which is an elongated valley, roughly 22 miles long in an east-west direction and generally approximately 9 miles wide in a north-south direction, although stretching to 12 miles wide at its widest point. Situated within the Transverse Ranges geomorphic province of California, the San Fernando Valley is bounded by the San Gabriel and Santa Susana Mountains to the north, the Santa Monica Mountains to the south, the Verdugo Mountains to the east, and the Simi Hills to the west. Geomorphic provinces are large natural regions, dominated by similar rocks or geologic structures.

The Transverse Ranges geomorphic province is composed of several mountain ranges oriented in an east-west direction and extending over 320 miles from the Mojave and Colorado Desert Provinces to Point Arguello at the Pacific Ocean. Included within the Transverse Ranges are portions of Riverside, San Bernardino, Los Angeles, and Ventura Counties. Acting as a northern boundary, the Transverse Ranges truncate the northwest trending structural grain of the Peninsular Ranges geomorphic province, which is composed of multiple mountain ranges and valleys extending southward 775 miles past the US-Mexican Border. The Peninsular Ranges geomorphic province is the largest province in North America.

Southern California is seismically active, being situated at the convergence of the North American and Pacific tectonic plates. A map showing major faults in the region is shown in **Figure 3.5-1**. Earthquakes along the San Andreas fault relieve convergent plate stress in the form of right lateral strike slip offsets. The Transverse Ranges work as a block causing the San Andreas fault to bend or kink, producing compressional stresses that are manifest as reverse, thrust, and right lateral faults. Faulting associated with the compressional forces creates earthquakes and is primarily responsible for the mountain building, basin development, and regional upwarping found in this area. As rocks are folded and faulted within the rising mountain ranges, landsliding and erosion transport sediment or alluvium into the San Fernando Valley, creating a deep sedimentary basin.



SOURCE: Byer Geotechnical, Inc., 2015; Fault Activity Map of California, California Geological Survey, 2010

Figure 3.5-1

Regional Fault Map

Mountain ranges surrounding the San Fernando Valley contain rocks varying in age from the Pre-Cambrian eon to the Tertiary period and younger sedimentary and volcanic rocks that range from Tertiary period to Quaternary period. As ages of the rocks vary greatly, so does the composition of the rocks surrounding the valley: from igneous and metamorphic crystalline complexes to marine and non-marine sediments.

Topography, Slopes and Major Drainage

The floor of the San Fernando Valley slopes gently to the east at about a one percent gradient. Elevations of the valley floor vary from 1,000 feet above mean sea level (AMSL) at the north and northwestern ends of the valley, to 500 feet AMSL at the Los Angeles River Narrows, the southeastern end of and point at which the Los Angeles River exits the valley. The Los Angeles River Narrows act as base level for the river and the valley.

Sediments from the bounding mountain ranges are carried into and across the San Fernando Valley through numerous seasonal streams flowing to the Los Angeles River, the master drainage for the valley, which flows west to east.

The average elevations of the mountains surrounding the San Fernando Valley range from 1,700 feet AMSL for the Santa Monica Mountains, 1,800 feet AMSL for the Simi Hills, to 2,000 feet AMSL for the Santa Susana Mountains. The highest point in the area is San Fernando Peak in the Santa Susana Mountains, having an elevation of 3,741 feet AMSL.

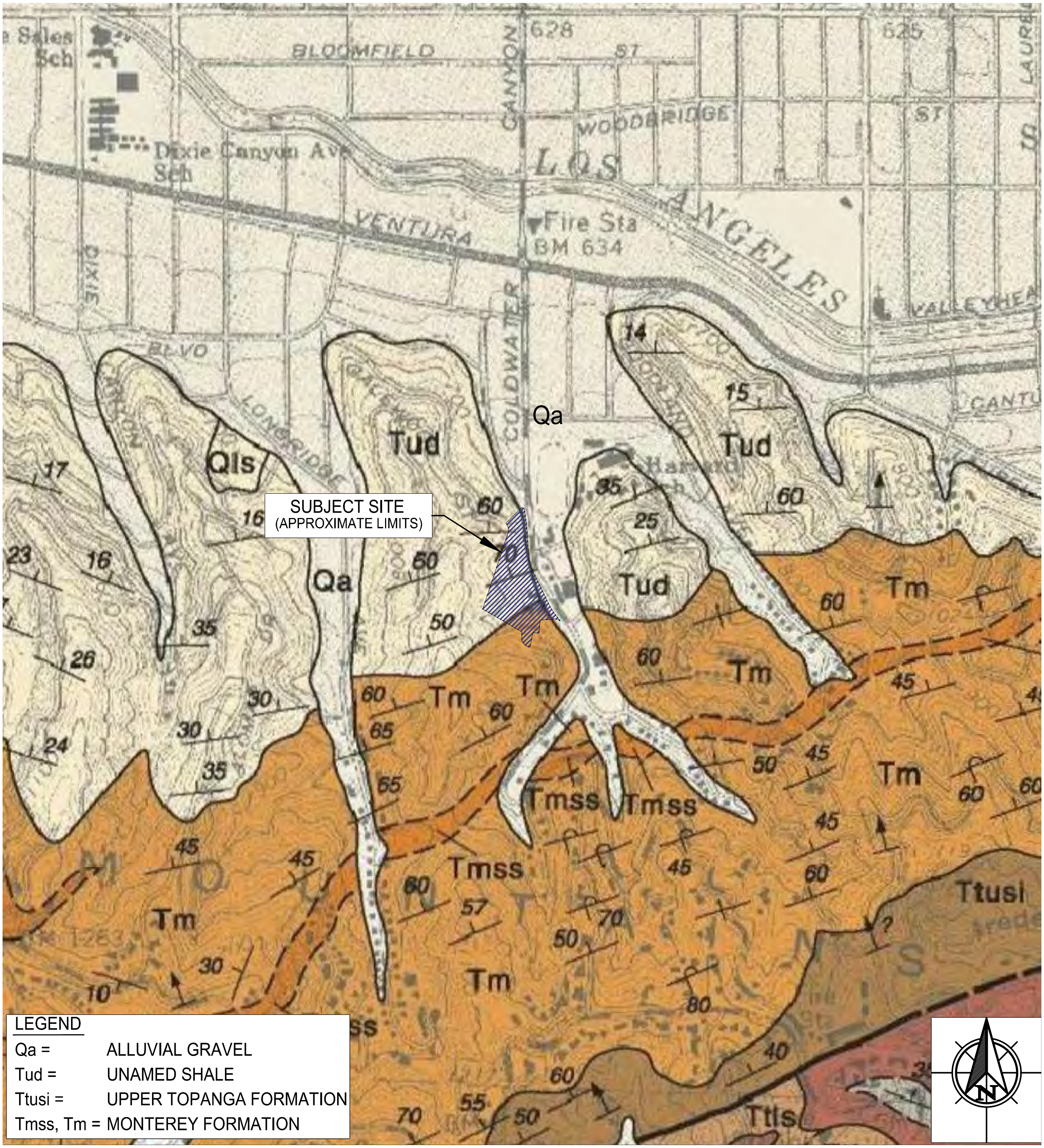
The Development Site is located within sloped lots extending upwards to the west from Coldwater Canyon Avenue. The lots contain graded building pads previously occupied by four ~~two~~ residences (two were removed following the 1994 Northridge earthquake and two were demolished in 2011), one vacant residence (owned by Harvard-Westlake School), a larger graded area, driveways, and vacant sloped land. A retaining wall with a height of up to approximately 8 feet runs along a portion of the driveway to the upper vacant building pad. The Development Site is heavily vegetated outside the graded lots with grasses, chaparral, and trees.

The Development Site is bounded on the west ~~north~~ by the undeveloped slopes of Coldwater Canyon Open Space, on the east by Coldwater Canyon Avenue, and on the south and north ~~west~~ by slopes with residences at the top.

The western ~~east facing natural~~ slope extends ~~ing~~ upward from Coldwater Canyon Avenue to ~~has~~ a height of greater than 200 feet. The southern ~~north facing natural~~ slope has a height of approximately 100 feet to the residence near the top. The northern slope reaches a height of approximately 150 feet. In general, the slopes have an inclination of steeper than 2:1 (horizontal:vertical). In between these slopes, there exist drainage valleys or fills within former drainage valleys. The topography at the Development Site is shown in **Figure 3.5-2**.

Local Geology and Soils

Holocene to Pleistocene alluvial and older elevated alluvial soils comprise the majority of geologic material exposed at the surface of the San Fernando Valley. Quaternary-age Saugus formation exposures are present northeast of the Proposed Project.



SOURCE: Byer Geotechnical, Inc., 2015; Dibblee, Geologic Map of Beverly Hills and Van Nuys, 1991

Figure 3.5-2

Regional Geologic Map

Field investigations undertaken on the Development Site in 1998, 2009, and 2014 ~~for the Project~~ (see **Appendix E.1**) indicate the Development Site includes undocumented fills underlain by natural soils and/or bedrock. Compacted fills up to 20 ~~of less than 5~~ feet were encountered in the borings~~ although deeper fills are anticipated at the site~~. The natural soils and alluvium encountered within the Development Site consist primarily of silty clay, sandy silt, silt, and clayey silt. These soils were encountered within the areas of the current or former drainage valleys. The thickness of native soils and alluvium extends to depths of up to 32 ~~23~~ feet below existing grade on the west side of Coldwater Canyon Avenue and up to 31 feet below existing grade on the east side of Coldwater Canyon Avenue. These materials range from dry to wet and generally exhibit low strength and high compressibility characteristics.

Upper Miocene age bedrock consisting of diatomaceous siltstone, shale, mudstone, and occasional siliceous shale and sandstone was encountered under the undocumented fill and natural soils extending to the depth of the borings. The diatomaceous siltstone and shale were encountered in the central and northern portions of the site, while the mudstone was encountered in the southern portion. These materials are very moist to wet~~. These materials~~ and generally exhibit moderate to high strength, with the diatomaceous material being somewhat stronger, and low to moderate compressibility characteristics. Initial testing of the siltstone suggested ~~indicated~~ that on-site materials might be ~~are~~ moderately to highly expansive (see **Appendix E.1**) as a result of high liquid and plastic limits. However, such results are a reflection of the diatomaceous content of the bedrock (which, owing to its biological composition, typically has high liquid and plastic limits). Expansion index tests were performed and support this conclusion.

Groundwater was not encountered on the west side of Coldwater Canyon Avenue during the six borings conducted in 1998 (to a maximum depth of 43 feet), ten borings conducted in 2009 (to a maximum depth of 71 feet), and eight borings conducted in 2014 (to a maximum depth of 76 feet). On the east side of Coldwater Canyon Avenue, groundwater was observed at a depth of 29 feet during a 2011 boring relating to the construction of the Harvard-Westlake School pool but not during the 2014 boring conducted in the area of the eastern bridge support (to a maximum depth of 41 feet).

Faulting and Seismicity

Southern California is a geologically complex and diverse area, dominated by the compressional forces created as the North American and Pacific tectonic plates slide past one another along a transform fault known as the San Andreas. Regional tectonic compressional forces shorten and thicken the earth's crust, creating and uplifting the local transverse mountain ranges, including the Santa Susana, Santa Monica, and San Gabriel. A variety of fractures within the crust are created to accommodate the compressional strain, allowing one rock mass to move relative to another rock mass; this is a fault.

Within Southern California, several fault types are expressed, including lateral or strike slip faults, vertical referred to as normal and reverse or thrust faults, and oblique faults accommodating both lateral and vertical offset. Earthquakes are the result of sudden movements along faults, generating ground motion (sometimes violent) as the accumulated stress within the rocks is released as waves of seismic energy.

The Project area is geologically complex with numerous slow moving faults such as the blind thrust responsible for the magnitude (Mw) 6.7 Northridge earthquake of 1994. Many faults shown on regional geologic maps within a 100-mile radius of the Project Site were recognized to be active (Holocene displacement) or potentially active (Quaternary displacement) by CGS and the USGS.

Figure 3.5-1 depicts the location of recognized faults within Los Angeles and San Fernando Valley areas. Known faults within the area, classified as either active or potentially active are listed in **Table 3.5-1**. The most significant fault in the proximity of the Development Site is the Hollywood Fault, which is located approximately 3.4 ~~1.2~~ miles south of the Development Site. However, unlike the southern boundary of the Santa Monica Mountains, the northern boundary is not separated from the valley alluvium by a fault.

In many cases, only portions of the known length of a fault are included within an Alquist Priolo earthquake fault zone. Inclusion within an earthquake fault zone occurs when, for example, the ground surface is ruptured by a fault, as exemplified by the San Fernando segment of the Sierra Madre fault zone during the 1971 San Fernando earthquake. Portions of earthquake fault zoned faults that have not experienced recent ground rupture or have not been investigated are not necessarily included within an earthquake fault zone. No earthquake fault zoned faults extend into or cross the Project area at this time.
Several faults are present in Southern California that have no surface expression. These faults are generally known as blind thrust faults. Both the Whittier Narrows earthquake (1987) and the Northridge earthquake (1994) occurred on blind thrust faults. Blind thrust faults are low angle reverse faults that do not extend to the surface; therefore, identifying their locations from surface mapping is difficult at best. Rather deep bore holes and seismic records provide details about the geometry of these faults. Blind thrust faults may produce ground shaking at the Development Site but there is no potential for surface rupture given the distance to the nearest known fault.

The Project Site is located in the Santa Monica Mountains on the west canyon wall of Coldwater Canyon, one of many north-flowing canyons that drain toward the San Fernando Valley. The area is within moderate to steep hillside terrain on the north flank of the east-west trending Santa Monica Mountains.

As shown in **Figure 3.5-2**, the Project Site and surrounding area are underlain by sedimentary bedrock of unnamed shale. The geologic structure of the area is relatively simple, with bedding striking nearly east-west and dipping steeply (60 to 70 degrees) to the north.

Bedrock underlying the Development Site is overlain by clayey, native residual soils and colluvium on the natural hillsides, and fine-grained alluvium, virtually indistinguishable from the colluvial soils, in the east flowing drainage in the southern portion of the site. The maximum thickness of alluvium observed was approximately 32 ~~23~~ feet in the middle of the site adjacent to Coldwater Canyon Avenue.

~~Fill deposits, placed during a previous grading operation of unknown purpose, are present within two east flowing drainages. The fill deposits are undocumented and have an estimated maximum thickness of approximately 20 feet.~~

Strong Ground Motion

Ground shaking intensity is influenced by several factors, including but not limited to the distance of the epicenter from the Project Site and depth at which the earthquake occurred, the magnitude of the earthquake, subsurface geologic structures, as well as surface topography, depth of groundwater, and strength of the earth materials underlying the Project Site.

TABLE 3.5-1: SIGNIFICANT FAULTS IN PROJECT AREA

Fault Name Relative Fault Geometry (ss) strike slip, (r) reverse, (n) normal, (rl) right lateral, (ll) left lateral, (o) oblique, (t) thrust	Fault Class	Fault Length (miles)	Dip angle, direction	Alquist Priolo Earthquake Fault Zoned
Chatsworth - r	B	12	N	NO
Northridge Hills3 - r	B	10	N	NO
Mission Hills - r	B	7	N	NO
Sierra Madre (Santa Susana) - r	B	35.4	45°, N	YES
Simi Santa Rosa - r	B	25	60°, N	YES
Northridge - r	B	19.3	42°, S	NO
Sierra Madre (San Fernando) - r	B	11.2	45°, N	YES
Verdugo - r	B	18	45°, NE	NO
Holser - r	B	12.4	65°, S	YES
Malibu Coast - ll,r,o	B	23	75°, N	YES
Oak Ridge (onshore) - r	B	30.5	65°, S	YES
San Gabriel - ss, rl	B	44.7	90°	YES
Santa Monica (Onshore) - ll,r,o	B	17.4	75°, N	NO
Hollywood - ll,r,o	B	10.56	70°, N	PARTIAL ~~NO~~
Anacapa- Dume - r,II,o	B	46.6	50°, N	NO
San Cayetano - r	B	26	60°,N	YES
Sierra Madre (Sierra Madre B) - r	B	35.4	45°, N	YES
Newport - Inglewood (Rose Canyon) - rl,ss	B	41	90°	YES
Upper Elysian Park - r	B	12.4	50°, NE	NO
Palos Verdes (Offshore) - rl,ss	B	59.6	90°	NO
Puente Hills Blind Thrust - r	B	27.3	25°, N	NO
Raymond - ll,r,o	B	14.3	75°, N	YES
Santa Ynes - east segment, II – ss	B	42.2	80°	YES
San Andreas (Mojave) - ss,rl	A	64	90°	YES
San Andreas (Cholame) - ss,rl	A	39	90°	YES
Elsinore (Whittier) - rl,r,o	A	23.6	75°, NE	YES

Source: Based on information in Canoga Transportation Corridor 2008 Final EIR – which used the following source documentation: Cao, T., Bryant, W.A., Rowshandel, B., Branum, D., and Willis, C.J., 2003, *Revised 2002 California Probabilistic Seismic Hazard Maps*, June 2003 www.data.scec.org, Baldwin, J. N., Kelson, I. K., Paleoseismic Investigation of the Northridge Hills fault, Northridge, CA, 1998

An earthquake's intensity is the effect the ground shaking has on the earth's surface. Several methods for rating earthquakes have been developed, but within the United States, the Modified Mercalli Intensity (MMI) is used. This system is not mathematically derived, but is simply based on observation of destruction, indexed to the roman numerals I through XII, with an "I" representing an event that was nearly unperceivable, to "XII," which represents near total destruction of all structures and the land surface is deformed.

Measurements of ground motion or magnitudes of the amount of energy released by an earthquake are quantified and recorded on various scales, the first of which was originally developed by Charles F. Richter in 1935. The scales are based on a logarithm of the amplitude of waves recorded by seismographs. Several scales have been developed, but most commonly used are the Richter magnitude or local magnitude (ML), the surface-wave magnitude (Ms), the body wave magnitude (Mb), and the moment magnitude (Mw). Currently, the moment magnitude is most commonly reported, as it is based on the concept of seismic moment and is the most accurate scale for large magnitude earthquakes.

Earthquake-induced ground motion intensity can be described using peak site accelerations, represented as a fraction of the acceleration of gravity (g). Peak bedrock accelerations for design level earthquakes on a nearby fault can be calculated using any of a number of different attenuation relationships.

Given the proximity of the ~~proposed~~ ~~Project~~ Development Site ~~area~~ with respect to the faults listed within **Table 3.5-1** and shown on **Figure 3.5-1**, in conjunction with known damage associated with both the 1971 San Fernando Earthquake (6.7 Mw), and the 1994 Northridge earthquake (6.7 Mw) intense ground shaking should be expected in the future. The strongest ground acceleration ever measured instrumentally within an urban area of North America (Southern California Earthquake Center [SCEC]) was measured during the Northridge earthquake to be 1.8g, recorded on Tarzan Hill.[1] The reason for this anomalously high result is not well known. Significant damage, as would be expected given the high acceleration, was not found to the nearby homes.

Liquefaction and Related Ground Failures

Liquefaction occurs when saturated, low relative density, low plastic materials are transformed from a solid to a near-liquid state. This phenomenon occurs when moderate to severe seismic ground shaking causes pore-water pressure to increase. Site susceptibility to liquefaction is a function of the depth, density, soil type, and water content of granular sediments, along with the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction. Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects.[2]

Groundwater was not encountered in exploratory borings to depths of 76 ~~71~~ feet below the existing ground surface on the west side of Coldwater Canyon Avenue. Perched groundwater may be encountered within excavations at the bottom of the drainage valleys. ~~A historical depth to groundwater has been determined for the site to be greater than 40 feet below existing grades~~ Groundwater was encountered in connection with excavation for the recently-constructed pool, at 29 feet below grade on the east side of Coldwater Canyon Avenue but was not detected in a 2014 boring in the area of the eastern bridge abutment to a maximum depth of 41 feet (see **Appendix E.1**). Seasonal fluctuations in groundwater levels occur due to variations in climate, irrigation, development, and other factors. Groundwater levels may also differ across the Project Site. The bedrock that underlies the east and west flanks of Coldwater Canyon is not a permeable bedrock formation. The Campus to the east is within Coldwater Canyon, which drains a large tributary area from Mulholland Drive north. Since the bedrock is relatively impermeable, water remains perched near bedrock on the east side of Coldwater Canyon Avenue. Therefore, the groundwater levels on the east and west sides of Coldwater Canyon Avenue differ. Groundwater in Coldwater Canyon flows north to the alluvium of the San Fernando Valley.

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1 Shakal, A., M. Huang, R. Darragh, T. Cao R. Sherburne, P. Malhotra, C. Cramer, R. Sydnor, V. Graizer, G. Maldonado, C. Peterspm, and J. Wampole, 1994, *CSMIP Strong Motion Records from the Northridge, California, Earthquake of 17 January 1994*, report OSMS 94-07, California Division of Mines and Geology, Sacramento, California.

2 Youd, T.L. and Perkins, D M., 1978, *Mapping Liquefaction-Induced Ground Failure Potential*, Proceedings of the American Society of Civil Engineers, Journal of the Geotechnical Engineering Division, v. 104, no. GT4, pp. 433-446.

Subsidence

Subsidence is a general term for the slow, long-term regional lowering of the ground surface with respect to sea level. It can be caused by natural forces such as the consolidation of recently deposited sediments or by man-induced changes such as the withdrawal of oil field fluids or the dewatering of an aquifer. Subsidence occurs as a gradual change over a considerable distance (miles) or, less commonly, it can occur in discrete zones. Significant subsidence ~~during a strong earthquake~~ is not expected to occur if appropriate earthwork is undertaken.

Expansive Soils

Expansive soils, also known as Shrink-Swell soils, are primarily clay-rich soils subject to changes in volume with changes in moisture content. The resultant shrinking and swelling of soils can influence all fixed structures, utilities and roadways. Included within the definition of expansive soils are certain bedrock formations with expansive rock strata and weathered horizons. ~~Based on soil~~ Descriptions noted in the boring logs reviewed point to the existence of moist soil content, confirmed via liquid and plastic limit tests.~~, there is the potential for presence of expansive soils within the near surface~~ Low results from expansion index testing, however, confirm that such observations simply reflect the diatomaceous content of the bedrock. Regardless, the Project will derive its support from piles founded directly into bedrock and thus remove any potential impact from expansive soils.

Seismically Induced Settlement

Strong groundshaking can cause the densification of soils, resulting in local or regional settlement of the ground surface. During strong groundshaking, soil grains may become more tightly packed due to the collapse of voids or pore spaces, resulting in a reduction in the thickness of the soil column. This type of ground failure typically occurs in loose granular, cohesionless soils, and can occur in either wet or dry conditions. Artificial fills may also experience seismically induced settlement. Seismic-induced settlement is not expected at the Development Site if the recommended earthwork is completed.

Slope Instability and Erosion

Landslide and mudflow are terms used to designate certain forms of natural or man-induced slope instability or movement. These processes can ~~that may~~ adversely influence life or property. Included are a number of different processes that range from very slow (a few inches in a hundred years) to extremely rapid (70 or more miles per hour). Included within the definition of this hazard are all gravity-induced downslope movements including the separate phenomena of rockfall, soil creep, soil failures, dry raveling, rotational and transitional slides, flows, slumps and complex combinations of the above phenomena. The hazard applies to both natural and constructed slopes. Contributing factors include rainfall ~~erosion~~, earthquake ground shaking, brush fires, and groundwater.

Erosion is the wearing away ~~or deposition~~ of the land surface by wind or water. Erosion occurs naturally from weather or runoff, but can be intensified by land clearing practices.

Hydrology

The drainage area ~~of~~ tributary to the ~~Project~~ Development Site is approximately 15.34 ~~3.6~~ acres (**Appendix E.2** ~~Preliminary~~ Hydrology ~~Report~~ Study). The area is sloping from southwest toward the northeast direction. The drainage area is composed of natural landscape, driveways, small building facilities and dirt. The existing run off is draining towards a northeast direction to Coldwater Canyon Avenue.

Flood Potential

The Project ~~area~~ Site is not located within a flood plain, flood hazard zone or regulatory floodway and therefore, impacts associated with the placement of housing within a 100-year flood hazard or the proposed Project's ability to impede or redirect flood flows would be less than significant.

The Project ~~area~~ Site is not located within an area subject to levee or dam failure and would not be subject to seiche, tsunami, or mudflow.

REGULATORY FRAMEWORK

Federal

Water Quality Act. The Water Quality Act of 1987 added Section 402(p) to the 1972 Federal Clean Water Act (CWA) (33 U.S.C § 1251-1387). This section requires the USEPA to establish regulations setting forth National Pollutant Discharge Elimination System (NPDES) requirements for storm water discharges in two phases. On November 16, 1990, Phase I storm water regulations were directed at municipal separate storm sewer systems (MS4s) serving a population of 100,000 or more, including construction activities. On December 8, 1999, Phase II storm water regulations were directed at storm water discharges not covered in Phase I, including small MS4s (municipal systems serving a population of less than 100,000), small construction projects (one to five acres), municipal facilities with delayed coverage under the Intermodal Surface Transportation Efficiency Act of 1991.

Federal Antidegredation Policy. The Federal Antidegradation Policy (40 Code of Federal Regulations 131.12) requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations ~~(CFR)~~, state anti-degradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

State

Alquist-Priolo Geologic Hazards Zone Act. The Alquist-Priolo Geologic Hazards Zone Act was passed in 1972 by the State legislature ~~of California~~ to mitigate the hazard of surface faulting to structures for human occupancy. The Alquist-Priolo Geologic Hazards Zone Act has been amended 10 times and was renamed the Alquist-Priolo Earthquake Fault Zoning Act on January 1, 1994. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of structures used for human occupancy on the surface trace of active faults as documented in Special Publication 42 by CGS. The Alquist-Priolo Earthquake Fault Zoning Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act of 1990. The Seismic Hazards Mapping Act of 1990 (Seismic Act) was enacted, in part, to address seismic hazards not included in the Alquist-Priolo Earthquake Fault Zoning Act, including strong ground shaking, landslides, and liquefaction. Under ~~this~~ the Seismic Act, the State Geologist is assigned the responsibility of identifying and mapping seismic hazards. California Geological Survey (CGS) Special Publication 117, adopted in 1997 by the State Mining and Geology Board, constitutes guidelines for evaluating seismic hazards other than surface faulting, and for recommending mitigation measures as required by Public Resources Code Section 2695 (a). In accordance with the mapping criteria, the CGS seismic hazard zone maps use a ground shaking event that corresponds to 10 percent probability of exceedance in 50 years.

California Building Code (CBC) [California Code of Regulations (CCR), Title 24]. The California Building Code (CBC) [California Code of Regulations (CCR), Title 24] is a compilation of building standards, including seismic safety standards for new buildings. CBC standards are based on building standards that have been adopted by State agencies without change from a national model code; building standards based on a national model code that have been changed to address particular California conditions; and building standards authorized by the California legislature but not covered by the national model code. Given the State's susceptibility to seismic events, the seismic standards within the CBC are among the strictest in the world. The CBC applies to all occupancies in California, except where stricter standards have been adopted by local agencies. The State has adopted the ~~2010~~ 2013 CBC, which became effective on ~~January~~ July 1, 2014 ~~2011~~. Specific CBC building and seismic safety regulations have been incorporated by reference in the LAMC ~~Los Angeles Municipal Code~~ with local amendments.

California Water Code (CWC). The State Water Resources Control Board has the overall responsibility to develop and implement state water quality control policy and is the EPA-designated agency for administering applicable Federal CWA programs, including adopting water quality standards for waters of the state. The California Water Code (CWC) establishes nine administrative areas in the State, which are administered by the Regional Water Quality Control Boards (RWQCB), which adopts Water Quality Control Plans for their respective regions. The Water Quality Control Plans designate beneficial uses for each receiving water body and establish water quality objectives to ensure reasonable protection of the beneficial uses. The primary method of plan implementation for point discharges is through the issuance of permits.

Porter-Cologne Water Quality Control Act (Porter Cologne Act). In 1969, the California Legislature enacted the Porter-Cologne Water Quality Control Act (Porter- Cologne Act) to preserve, enhance and restore the quality of the State's water resources. The Porter-Cologne Act established the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards RWQCBs as the principal state agencies with the responsibility for controlling water quality in California. Under the Porter-Cologne Act, water quality policy is established, water quality standards are enforced for both surface and ground water, and the discharges of pollutants from point and non-point sources are regulated. The Porter-Cologne Act authorizes the ~~State Control Board~~ SWRCB to establish water quality principles and guidelines for long range resource planning including ground water and surface water management programs and control and use of recycled water. Sections of the Porter-Cologne Act were used as a basis for the 1972 CWA and responsibility for implementing the Federal provisions was assumed by the State. The Porter-Cologne Act was amended by the State legislature in 2010 to add several modifications including a Watershed Improvement Act.

The Project ~~area~~ site is located in the Los Angeles Regional Water Quality Control Board (LARWQCB) Region 4.

General Construction Activity Storm Water Permit (92-08-DWQ). The General Construction Activity Storm Water Permit (92-08-DWQ) adopted September 8, 1992 covered construction activities disturbing 5 acres or more. On August 19, 1999 the SWRCB reissued the General Construction Storm Water Permit (99-08-DWQ) that decreased the covered project size from 5 to 1 acre. Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map(s) that shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the Project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Under Section 303(d) of the ~~1972~~ CWA, states are required to list impaired water-bodies and develop and implement Total Maximum Daily Loads (TMDLs) for these water-bodies. California listed the Los Angeles River Reach 6 (above Sepulveda Flood Control Basin and in the vicinity of the Project) as a water quality limited segment in 2006. Pollutants identified are 1,1-Dichloroethylene(1,1-DCE)/ Vinylidene chloride, Coliform Bacteria, Tetrachloroethylene/ PCE, and Trichloroethylene/TCE.

Water Quality Control Plan, Los Angeles Region: Basin Plan (1994). The Water Quality Control Plan, Los Angeles Region: Basin Plan (1994) prepared by the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB), designates beneficial uses for surface and ground waters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and describes implementation programs to protect all waters in the region.

The ~~RWQCB~~ LARWQCB on September 19, 2001, adopted amendments to the Basin Plan, to incorporate TMDLs for trash in the Los Angeles River (Resolution No. 01-013). On August 9, 2007, the LARWQCB adopted a new trash TMDL (Resolution No. 07-012). This amendment indicates that trash in the Los Angeles River is causing impairment of beneficial uses and storm water discharge is the major source of trash in the river. Compliance with the final waste load allocation may be achieved through a full capture system. A full capture system is any device or series of devices that traps all particles retained by a 5mm mesh screen and has a design treatment capacity of not less that the peak flow rate resulting from a 1-year, 1-hour storm. The numeric target of the TMDL is zero trash in the river, with a phased reduction for a period of 9 years.

The LARWQCB on June 2, 2005, adopted amendments to the Basin Plan, to incorporate TMDLs for metals in the Los Angeles River (Resolution No. R2005-006). On September 6, 2007, the LARWQCB, revised the metals TMDL (Resolution No. R2007-014). This amendment indicates that metals including copper, cadmium, lead, zinc, aluminum and selenium in the Los Angeles River are causing impairment of beneficial uses and during wet weather, most of the metals loadings are in the particulate form and are associated with wet-weather storm water flow. There are separate targets for dry-weather and wet weather.

The LARWQCB on July 10, 2003, adopted amendments to the Basin Plan, to incorporate TMDLs for nutrients in the Los Angeles River (Resolution No. R2003-009). On December 4, 2003, the LARWQCB, revised the nutrients TMDL (Resolution No. R2003-016). This amendment indicates that nitrogen compounds (ammonia, nitrate, and nitrite) in the Los Angeles River are causing impairment of beneficial uses. The principal source of nitrogen compounds are three water reclamation plants, however, urban runoff, storm water, groundwater discharge may also contribute nitrate loads.

The Basin Plan establishes the following water quality objectives for the reach of the Los Angeles Watershed in the Project area: Total dissolved solids – 950 mg/l; Chloride – 150mg/l; Nitrogen – 8 mg/l; Sulfate – 300 mg/l.

In the State of California, the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB) are responsible for implementing the NPDES permit program. The Clean Water Act requires storm water discharges to surface waters associated with construction activity, including demolition, clearing, grading, and excavation, and other land disturbance activities (except operations that result in disturbance of less than one acre of total land area and which are not part of a larger common plan of development or sale), to obtain coverage under a NPDES construction permit. The NPDES construction permit requires implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in storm water runoff. The NPDES construction permit also includes additional requirements necessary to implement applicable water quality standards.

Under Section 402(p) of the Clean Water Act,municipal NPDES permits shall prohibit the discharge of non-storm water except under certain conditions and require controls to reduce pollutants in discharges to the maximum extent practicable. Such controls include BMPs, as well as system, design, and engineering methods. A municipal NPDES permit was issued to the County ~~of Los Angeles~~ and 84 incorporated cities including the City ~~of Los Angeles~~, in December 2001.[3] The ~~Los Angeles~~ County Municipal NPDES Permit required implementation of the Storm Water Quality Management Program prepared as part of the NPDES approval process. The Storm Water Quality Management Program requires the County ~~of Los Angeles~~ and the 84 incorporated cities to:

- Implement a public information and participation program to conduct outreach on storm water pollution;
- Control discharges at commercial/industrial facilities through tracking, inspecting, and ensuring compliance at facilities that are critical sources of pollutants;
- Implement a development planning program for specified development projects;
- Implement a program to control construction runoff from construction activity at all construction sites within the relevant jurisdiction;
- Implement a public agency activities program to minimize storm water pollution impacts from public agency activities; and
- Implement a program to document, track, and report illicit connections and discharges to the storm drain system.

General Construction Activity Storm Water Permit (99-08-DWQ). The General Construction Activity Storm Water Permit (99-08-DWQ) requires (Section A.10 – SWPPP) permittees to implement post-construction storm water management requirements and comply with the numerical criteria for mitigating storm water runoff through infiltration, or detention and retention as adopted in Board Resolution R-00-02, Standard Urban Storm Water Mitigation Plan (SUSMP). Effective July 1, 2010, all dischargers are required to obtain coverage under Construction General Permit Order No. 09-09-DWQ.

[3] County of Los Angeles Municipal Permit (NPDES No. CAS004001, Order No 01-182).

Los Angeles Municipal Storm Water Permit (NPDES Permit No: CAS004001, December 13, 2001. The Los Angeles Municipal Storm Water Permit (NPDES Permit No: CAS004001, December 13, 2001; amended September 14, 2006 by Order R4-2006-0074, and August 9, 2007 by Order R4-2007-0042) requires new development and redevelopment projects to incorporate SUSMPs. Project categories for which SUSMPs are applicable include "Parking Lots" of 5,000 square feet or larger, or with 25 or more parking spaces. General requirements of the SUSMP include 1) post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate where the increased peak storm water discharge rate will result in increased potential for downstream erosion, 2) conserve natural areas, 3) minimize storm water pollutants of concern, 4) protect slopes and channels, 5) provide storm drain stenciling and signage, 6) properly design outdoor material storage areas, 7) properly design trash storage areas, 8) provide proof of ongoing BMP maintenance, 9) post-construction treatment control BMPs are required to incorporate, at a minimum, either a volumetric or flow based treatment control design standard or both, to mitigate (infiltrate, filter, or treat) storm water runoff.

City of Los Angeles

General Plan Safety Element. The City's General Plan Safety Element, which was adopted in 1996, addresses public safety risks due to natural disasters including seismic events and geologic conditions, as well as sets forth guidance for emergency response during such disasters. The Safety Element also provides maps of designated areas within the City that are considered susceptible to earthquake-induced hazards such as fault rupture and liquefaction.

Los Angeles Building Code. Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in Los Angeles Municipal Code (LAMC), Chapter IX, Article 1. Specifically, Section 91.7006.7 includes requirements regarding import and export of material; Section 91.7010 includes regulations pertaining to excavations; Section 91.7011 includes requirements for fill materials; Section 91.7013 includes regulations pertaining to erosion control and drainage devices; Section 91.7014 includes general construction requirements as well as requirements regarding flood and mudflow protection; and Section 91.7016 includes regulations for areas that are subject to slides and unstable soils. Additionally, the Los Angeles Building Code includes specific requirements addressing seismic design, grading, foundation design, geologic investigations and reports, soil and rock testing, and groundwater. The Los Angeles Building Code incorporates by reference the CBC, with City amendments for additional requirements. The City Department of Building and Safety is responsible for implementing the provisions of the Los Angeles Building Code.

Water Quality Compliance Master Plan for Urban Runoff. The City of Los Angeles is required by the RWQCB to address water quality impairments in water bodies in their jurisdiction, including the Los Angeles River and 303(d) listed tributaries. The RWQCB has adopted Total Maximum Daily Loads (TMDLs) for specific contaminants as well as a schedule for developing Implementation Plans to achieve target dry weather and wet weather load allocations.

On March 2, 2007, City Council Motion 07-0663 was introduced by the City of Los Angeles City Council to develop a water quality master plan with strategic directions for planning, budgeting and funding to reduce pollution from urban runoff in the City of Los Angeles. The Water Quality Compliance Master Plan for Urban Runoff was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with the stakeholders to address the requirements of this Council Motion. The primary goal of the Water Quality Compliance Master Plan for Urban Runoff is to help in meeting water quality regulations. Implementation of the Water Quality Compliance Master Plan for Urban Runoff over the next 20 to 30 years will result in cleaner neighborhoods, rivers, lakes and bays, augmented local water supply, reduced flood risk, more open space, and beaches that are safe for swimming. The Water Quality

Compliance Master Plan for Urban Runoff also supports the Mayor and Council's efforts to make Los Angeles the greenest major city in the nation.

The Water Quality Compliance Master Plan for Urban Runoff identifies and describes the various watersheds in the City, summarizes the water quality conditions of the City's waters, identifies known sources of pollutants, describes the governing regulations for water quality, describes the BMPs that are being implemented by the City, discusses existing TMDL Implementation Plans and Watershed Management Plans. Additionally, the Water Quality Compliance Master Plan for Urban Runoff provides an implementation strategy that includes the following three initiatives to achieve water quality goals:

- Water Quality Management Initiative, which describes how Water Quality Management Plans for each of the City's watersheds and TMDL-specific Implementation Plans will be developed to ensure compliance with water quality regulations.
- The Citywide Collaboration Initiative, which recognizes that urban runoff management and urban (re)development are closely linked, requiring collaborations of many City agencies. This initiative requires the development of City policies, guidelines, and ordinances for green and sustainable approaches for urban runoff management.
- The Outreach Initiative, which promotes public education and community engagement with a focus on preventing urban runoff pollution.

Development Best Management Practices Handbook, Part A Construction Activities, 3rd Edition. The City of Los Angeles Development Best Management Practices Handbook, Part A Construction Activities, 3rd Edition, adopted by the City of Los Angeles Department of Public Works in September 2004, and associated ordinances reinforce the policies of the Construction General Permit. The handbook and ordinances also have specific minimum BMP requirements for all construction activities and require dischargers whose construction projects disturb one acre or more of soil to prepare a SWPPP and file a NOI with the RWQCB. Requirements of the Los Angeles County Municipal NPDES permit are mirrored within the City of Los Angeles' Development Best Management Practices Handbook, Part B Planning Activities, 3rd Edition, adopted by the City of Los Angeles Department of Public Works in June 2004. The manual provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Storm Water Program. Compliance with the requirements of this manual is required by City of Los Angeles Ordinance No. 173,494. The requirement to incorporate storm water BMPs into the SUSMP is implemented through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plans, zoning ordinances, and other applicable local ordinances and codes, including storm water requirements. Plans and specifications are reviewed to ensure that the appropriate BMPs are incorporated to address storm water pollution prevention goals.

Los Angeles Municipal Code. Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in Los Angeles Municipal Code (LAMC), Chapter IX, Article 1. Specifically, Section 91.7013 includes regulations pertaining to erosion control and drainage devices and Section 91.7014 includes general construction requirements as well as requirements regarding flood and mudflow protection. Section 64.70 of the LAMC sets forth the City's Storm Water and Urban Runoff Pollution Control Ordinance. The ordinance prohibits the discharge of the following into any storm drain system:

- Any liquids, solids, or gases which by reason of their nature or quantity are flammable, reactive, explosive, corrosive, or radioactive, or by interaction with other materials could result in fire, explosion or injury.

- Any solid or viscous materials, including oil and grease, which could cause obstruction to the flow or operation of the storm drain system.
- Any pollutant that injures or constitutes a hazard to human, animal, plant, or fish life, or creates a public nuisance.
- Any noxious or malodorous liquid, gas, or solid in sufficient quantity, either singly or by interaction with other materials, which creates a public nuisance, hazard to life, or inhibits authorized entry of any person into the storm drain system.
- Any medical, infectious, toxic or hazardous material or waste.

Any proposed drainage improvements within the street right of way requires the approval of a B-permit (Section 62.105, LAMC). Under the B-permit process, storm drain installation plans are subject to review and approval by the City of Los Angeles Department of Public Works Bureau of Engineering.[4] Additionally, any connections to the City's storm drain system from a property line to a catch basin or a storm drainpipe requires a storm drain permit from the City of Los Angeles Department of Public Works, Bureau of Engineering.

Proposition O. On November 2, 2004, Los Angeles voters passed Proposition O with an overwhelming majority of 76 percent. The $500 million bond authorizes the City to fund projects that protect public health, capture storm water for reuse and meet the Federal Clean Water Act through removal and prevention of pollutants entering regional waterways. In addition to larger projects, Proposition O funds were used for the Catch Basin Screen Cover and Insert Project, which provided for the installation of catch basin inserts and screen covers throughout the City.

Low Impact Development (LID) Ordinance. On January 15, 2010, the City of Los Angeles approved the Low Impact Development (LID) Ordinance requiring a variety of BMPs to manage storm water and urban runoff and reduce runoff pollution. The LID Ordinance builds on the City's SUSMP process incorporating environmental practices including infiltration, capture and use and biofiltration.

THRESHOLDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines, as amended through January 1, 2010, provides criteria under which a project could have a significant impact. Specifically, ~~the Proposed Project~~ a project would have a significant geology and soils impact if it results in any of the following and cannot be adequately mitigated:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
   i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
   ii) Strong seismic ground shaking;
   iii) Seismic-related ground failure, including liquefaction; or
   iv) Landslides.

b) Result in substantial soil erosion or the loss of topsoil;

[4] Los Angeles County Department of Public Works, Bureau of Engineering, http://eng.lacity.org/index.cfm; accessed April 30, 2010.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property; or
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

The ~~City of Los Angeles~~ L.A. CEQA Thresholds Guide states that a project would normally have a significant geology and soils impact if the project would:

Geologic Hazard

- Cause or accelerate geologic hazards, which would result in substantial damage to structures or infrastructure, or expose people to substantial risk of injury.

Sedimentation and Erosion

- Constitute a geologic hazard to other properties by causing or accelerating instability from erosion; or
- Accelerate natural processes of wind and water erosion and sedimentation, resulting in sediment runoff or deposition that would not be contained or controlled on-site.

Landform Alteration

- One or more distinct and prominent geologic or topographic features would be destroyed, permanently covered, or materially and adversely modified as a result of a project. Such features may include, but are not limited to, hilltops, ridges, hillslopes, canyons, ravines, rock outcrops, water bodies, streambeds, and wetlands.

Hydrology and Water Quality

In accordance with Appendix G to the State CEQA Guidelines, ~~the~~ a project would have a significant impact on hydrology and water quality if it would result in any of the following and cannot be adequately mitigated:

- Violate any water quality standards or waste discharge requirements;

- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

- Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;

- Otherwise substantially degrade water quality;

- Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

- Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

- Inundation by seiche, tsunami, or mudflow.

- Cause flooding during the projected 50-year developed storm event which would have the potential to harm people or damage property or sensitive biological resources;

- Substantially reduce or increase the amount of surface water in a water body;

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow; or

- Result in discharges that would create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code ~~(CWC)~~ or that cause regulatory standards to be violated, as defined in the applicable NPDES storm water permit or Water Quality Control Plan for the receiving water body.[5]

The ~~City of Los Angeles~~ L.A. CEQA Thresholds Guide states that a project would normally have a significant hydrology or water quality impact if the project would:

- Cause flooding during the projected 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources;

- Substantially reduce or increase the amount of surface water in a water body;

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5 The ~~CWC~~ California Water Code provides the following definitions: "Pollution" means an alteration of the quality of the waters of the State to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. Pollution may include contamination. "Contamination" means an impairment of the quality of the waters of the State by waste to a degree that creates a hazard to the public health through poisoning or through the spread of diseases. Contamination includes any equivalent effect resulting from the disposal of waste whether or not waters of the State are affected. "Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during or as a result of the treatment or disposal of wastes.

- Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow.

- Result in discharges that create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable NPDES storm water permit or Water Quality Control Plan for the receiving water body.

- Change potable water levels sufficiently to:
  - - Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought;
  - Reduce yields of adjacent wells or well fields (public or private); or
  - Adversely change the rate or direction of flow of groundwater; or

- Result in demonstrable and sustained reduction of groundwater recharge capacity.

- Affect the rate or change the direction of movement of existing contaminants;

- Expand the area affected by contaminants;

- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or

- Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act.

The ~~*City of Los Angeles*~~ L.A. CEQA Thresholds identified above are used in the following analysis.

IMPACTS

Geologic Hazards

~~Undocumented f~~ Fills on the Development Site will be removed by the planned cuts for the Parking Structure, the recommended removal and recompaction activities for the debris basin, and the recommended compaction for the retaining wall backfill.

Available maps indicate that the Proposed Project is not located within an Alquist-Priolo Earthquake Fault Zone and therefore, the potential for fault rupture is considered negligible. Nonetheless, as is the case with much of Southern California, and as noted above, intense groundshaking is to be expected in the area as a result of proximity to known faults.

One geologic map of the area indicates that where the shale meets the siltstone in the vicinity of the Development Site there is potential for a fault. However, borings on the Development Site indicate no ~~shearing or other~~ evidence of any active faulting~~, and therefore in the opinion of the geologists who undertook the Geology Report~~ (**Appendix E.1**)~~ the shale/siltstone interface was caused by deposition of geologic materials over time rather than by faulting~~.

The on-site geologic investigations generally confirmed that bedding generally strik~~ing~~es nearly east-west and dip~~ping~~s steeply to the north, except in the extreme southerly portion of the Development Site, where bedding generally steepens, overturns, and dips to the south. ~~No evidence of faulting, such as shearing, was observed in the borings.~~ The geologic map by Dibblee (**Figure 3.5-2**) shows several areas of overturned bedding in areas to the immediate south and east of the site. The bedding reversal is most likely due to simple overturning of steeply dipping bedding.

In general, bedding is favorably oriented with respect to proposed cuts at the toes of the western and northern ~~east and south facing existing natural~~ slopes. Along a portion of the southern ~~north-facing~~ slope on the south side of the proposed Parking Structure, steeply dipping bedding will be day-lighted by the proposed cut for the Parking Structure wall. Evidence of bedrock shearing along the southern section of the Development Site was observed in boring GHB-3. The design of the retaining wall system incorporates this adverse condition.

The ~~Preliminary~~ Final Geologic and Soils Engineering ~~Geotechnical~~ Report (**Appendix E.1**) includes investigation of a questioned landslide encompassing the ridgeline on the southern portion of the property. The geologists undertook four borings to determine whether a landslide exists in that location. No evidence of landsliding was found.

During the life of the Project, the Project Site will likely be subject to strong ground motions due to earthquakes on nearby faults. Based on probabilistic and deterministic ground motion analysis (see **Appendix E.1**), the Project Site could be subjected to a peak ground acceleration (adjusted for site class effects) of 0.583g (defined as two thirds of the Peak Ground Acceleration) ~~0.40g (updated in a letter from GPI dated February 5, 2013 – see **Appendix E.1** -- from 0.56g)~~. This acceleration has a 10 percent chance of being exceeded in 50 years. Slope stability analyses and soil-nail wall design analyses were performed considering the ground motion discussed above and meet the City-required safety factors.

Southern California is a seismically active region capable of generating earthquakes (including groundshaking) of considerable magnitude. As noted in **Table 3.5-1**, there are active faults located within close proximity of the Project area. Movement along these faults could generate an earthquake capable of causing considerable damage to buildings and infrastructure on the Project Site; similar risks exist for adjacent areas. The California Building Code requires that structures built in the State be constructed to address the seismic nature of the region. As such, the Proposed Project would not expose people to unknown safety issues associated with seismicity (including groundshaking). Therefore, impacts to the Proposed Project from seismicity (including groundshaking) would be less than significant.

Geotechnical Design

The Final Geologic and Soils Engineering Report (May 18, 2015), approved by the City of Los Angeles is included in **Appendix E.1** (a peer review, concurring with the findings of the Final Geologic and Soils Engineering Report, is included in **Appendix E.1a** and the approval letter from the City of Los Angeles is included in **Appendix E.1b**). Byer Geotechnical, Inc. (Byer) prepared the Final Geologic and Soils Engineering Report (also referred to as the Byer Report below) that includes an analysis of the geotechnical conditions affecting the Project and includes recommendations for structural design to address site-specific conditions. (The Final Geologic and Soils Engineering Report addresses comments raised in the Los Angeles Department of Building and Safety Geology and Soils Report correction letter dated April 3, 2013.)

The Final Geologic and Soils Engineering Report represents a comprehensive examination of prior Development Site and area geologic studies, as well as the inclusion of new borings, pits, and laboratory tests that were specifically chosen for their applicability to the Development Site and design.

The Final Geologic and Soils Engineering Report concludes, on the basis of evidence and analysis that exceeds the level of detail typically required during an entitlement process, that the Project could be constructed and operated in a safe manner in accordance with the City's building code and standards.

Byer Geotechnical Inc. (Byer) prepared the Final Geologic and Soils Engineering Report in consultation with geotechnical engineers Grover-Hollingsworth and Associates, Inc. (Hollingsworth), civil engineers KPFF Consulting Engineers (KPFF) and soil nail engineers DRS Engineering, Inc. (DRS) to update the following:

1. Bedrock Strength
2. Soil Nail Retaining Wall Design
3. Hydrology and Drainage

Bedrock Strength

During late 2014, Byer and Hollingsworth excavated eight bucket-auger borings, to a maximum depth of 76 feet, and three test pits, to a maximum depth of 10.5 feet. Byer and Hollingsworth also conducted laboratory tests on soil and bedrock samples. The Byer Report's findings relating to bedrock strength are based on a far greater number of shear test results than were performed in the past or are normally performed for similar projects in the City, and Byer's onsite knowledge of and experience with the Modelo bedrock formation that underlies the Development Site. The selected shear strength parameters were shared with DRS so that the strength parameters and soil and bedrock conditions could be incorporated into the design and stability modeling of the soil nail and conventional retaining wall systems.

In addition, Byer evaluated the region's seismology, including existing fault maps, the California Geological Survey, and a US Geologic Survey of all earthquakes that occurred between April 1989 and April 2015 with a magnitude of 2.0 or greater and within a 32-kilometer radius of the Project Site. This timeframe includes the 1994 Northridge Earthquake and the 2014 M4 earthquakes under the Sepulveda Pass. Byer's analysis concluded that the Project will be subject to ground shaking during an earthquake, as are all structures located in the San Fernando Valley. The Byer Report contains recommendations to resist the ground shaking, including the use of pile foundations that are anchored at least 8 feet into bedrock. The Project includes drilled piles throughout the majority of the parking structure itself as well as the pedestrian bridge landing on the east side of Coldwater Canyon. Additionally, the Project's structural engineer, John A. Martin & Associates, reviewed this seismic information and incorporated compensating elements into the Project design, such as moment frames, and, at Harvard-Westlake School's request, used seismic loads 50 percent in excess of those required by the City's Building Code.

Surface rupture is not considered a Project risk given the lack of any proximate, active fault. Liquefaction is also not considered to be a risk as groundwater has not been detected to the west of Coldwater Canyon Avenue, groundwater was not detected to the east of Coldwater Canyon Avenue at the bridge support location during the 2014 borings, and bedrock is shallower than the previously detected groundwater found at a depth of 29 feet east of Coldwater Canyon during 2011 borings. Regardless, the use of pile foundations extending into bedrock for the pedestrian bridge landing and the Parking Structure eliminate the need to consider the possible effects of potential groundwater.

Soil conditions and tests indicate that the hillsides surrounding the Project Site to the south, west, and northwest are grossly and seismically stable at levels in excess of City requirements. The hillsides would not be compromised or otherwise destabilized by the Project. Byer's and Hollingsworth's tests identified an area along the southern section of the Project with potentially adverse bedrock shear and joint planes, as well as a higher clay content in the bedrock than the rest of the Development Site. The test soil strength parameters reflect these conditions and the soil nail design and safety calculations factor in these geological conditions.

Soil Nail Design

Using the conservative soil and bedrock properties and shear strengths, a comprehensive design for conventional and soil nail retaining walls was created. The construction-level information in the Final Geologic and Soils Engineering Report includes specifications for the soil nails, degree of nail inclination below horizontal, nail spacing, nail length, attachment points and hardware, temporary and permanent wall facing, proof nails, and a permanent monitoring regimen following construction. At the request of Harvard-Westlake School, the soil nails are to be installed with redundant corrosion protection – a provision that exceeds City requirements for soil nail walls and is a conservative engineering element.

Detailed calculations, using methods and standards prescribed by both the City and the Federal Highway Administration, show that the soil nail and conventional retaining walls will be gross and seismically stable.

Surficial Stability

Natural slopes on and near the Project Site were evaluated for surficial stability. Southern and western slopes were determined to be surficially stable, indicating very limited potential for debris flow or landslides. To the northwest, a small offsite area with slopes in excess of 28 degrees has the potential for surficial instability. Accordingly, KPFF has designed a system of deflection walls and a swale along that section of retaining wall to redirect, slow, and drain any such debris. The capacity of the swale exceeds the City's Building Code requirements for potential debris, as well as the potential flow of water resulting from 50, 25, 10, and 2-year storms, per the County Hydrology Manual, factoring in the infeasibility of infiltration due to the City's Hillside Grading Ordinance.

While there is limited potential for debris flow, given the area's surficial stability as previously discussed, a significant rain event could produce water runoff. Accordingly, the Project design includes an earthen debris basin. The debris basin is located to the southwest of the Parking Structure, and would collect such water and direct it to flow-through planters where it would be treated and slowed before being discharged. The area tributary to the proposed debris basin is 7.38-acres. The debris basin can accommodate potential runoff from 8 acres, exceeding the actual tributary area in accordance with the City's Building Code and the County's Hydrology Manual.

Overall, according to the Final Geologic and Soils Engineering Report and associated hydrological modeling, the Project retaining walls, drainage swale, and debris basin may even reduce the possibility of landslides or volume of surficial runoff onto Coldwater Canyon Avenue.

Liquefaction

The majority of the Development Site is not located within an area identified by the State as having a potential for soil liquefaction. Within this area, soil liquefaction is not likely to occur because the majority of the soils encountered are sedimentary bedrock and groundwater is deep.

A small portion of the Parking Structure is located within an area mapped by the State of California as having a potential for soil liquefaction ~~(see **Appendix E.1**)~~. Groundwater was not encountered to the depth of the bedrock within this liquefaction zone. Although Zimas indicates that landslides and liquefaction are potential issues to be addressed at the Development Site, the Project specific ~~Preliminary Geotechnical~~ Final Geologic and Soils Engineering Report (**Appendix E.1**) indicates that there are no landslides and that, as noted above, the proposed pile foundation, anchored at least 8 feet into bedrock, would address site soil and geological conditions to ensure a high level of safety. ~~the small area of liquefiable soils would be removed as part of the Project~~.

~~In addition, it is anticipated that most potentially liquefiable soils within the alluvium and colluvium under the foundations of Parking Structure will be removed during remedial grading.~~

~~Subsidence~~ Foundation Settlement

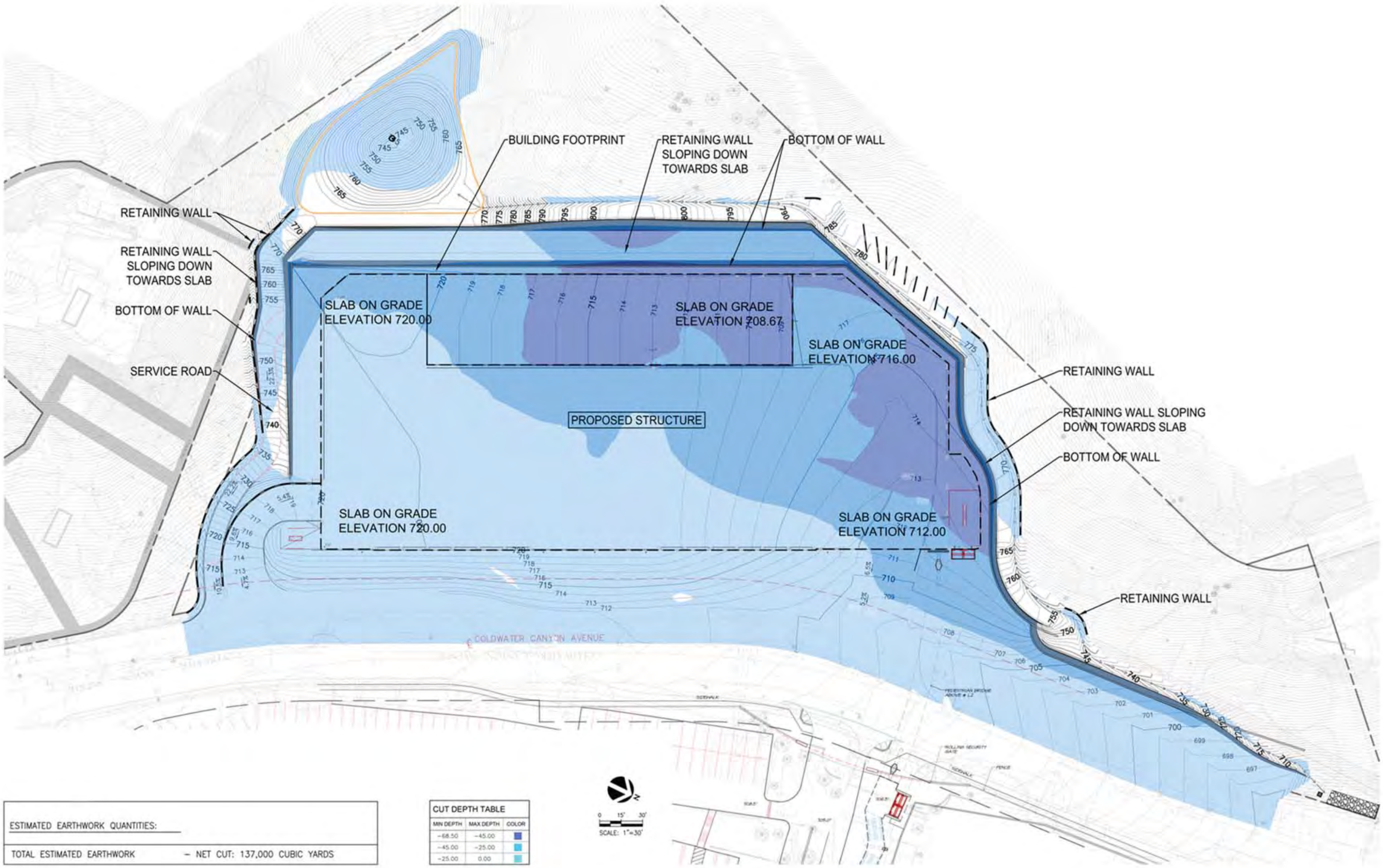
Settlement of the foundation system is expected to occur on completion of the Parking Structure. A settlement of one-half to one inch could occur. Differential settlement should not exceed one-half inch (**Appendix E.1**). ~~Loss of soil volume caused by compaction of fills to a higher density than before grading could occur. Subsidence is the settlement of in-place subgrade soils caused by loads generated by large earthmoving equipment. For earthwork volume estimating purposes, an average shrinkage value of 10 to 15 percent may be assumed for the surficial soils (upper 5 feet) and alluvium/colluvium soils within the drainage valleys. Subsidence is expected to be less than 0.1 feet. (These values are estimates only and exclude losses due to removal of vegetation or debris. Actual shrinkage and subsidence will depend on the types of earthmoving equipment used and would be determined during grading.) For the Parking Structure, total static settlement of the column footings is expected to be less than 1.5 inches provided the footings are supported on competent bedrock or properly compacted fills (**Appendix E.1**).~~

~~Expansive Soils~~

~~The siltstone within the footprint of the proposed structure has moderate to high expansivity, therefore, the upper 2 feet of the subgrade soils consisting of siltstone should be removed and as necessary replaced with imported, non-expansive sandy soils.~~

Slope Stability

As noted previously, after investigation, no landslides have been identified on the Development Site. The Project includes substantial cuts in to site soils (see **Figure 3.5-3**). Four soil nail retaining walls are proposed on the Development Site in order to protect the adjacent hillsides and to construct the Parking Structure. The first soil nail retaining wall is located along the rear (west side) of the Parking Structure and is the lower portion of a stepped wall design along that section. It varies in height from 28 feet to 30 feet (south to north). The second soil nail retaining wall is the upper portion of the stepped retaining wall along the west side of the Parking Structure and also extends around the north and south sides of the Parking Structure. The south face of the second soil nail retaining wall would vary in height from 18 feet to 58 feet (from east to west), and at its eastern endpoint is directly abutted by a conventional retaining wall that gradually transitions to grade along the proposed southern access road. The west face of the second soil nail retaining wall varies from 52 feet to 90 feet in height (including the height of the first soil nail retaining wall), and the north face from 46 feet to 62 feet (from east to west). The third soil nail retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon



SOURCE: KPFF Consulting Engineers, 2012

Harvard-Westlake Parking Structure ■

Figure 3.5-3

Depth of Excavation

Avenue. This soil nail retaining wall would vary in height from 17 to 44 feet (from north to south). The northern end of the third soil nail retaining wall terminates at an energy dissipation structure that, along with flow-through planters, treats and controls the flow of storm water so that it can be safely discharged onto Coldwater Canyon Avenue. The fourth soil nail retaining wall would be on the south end behind the south side of the second soil nail retaining wall and would vary in height from 4 feet to 23 feet (from east to west). All retaining wall height measurements include a 3-foot high protective fence. The relocation of the southern retaining walls (the south face of the second retaining wall and the fourth retaining wall) and the soil nail design resulted in the addition of parcels, owned by Harvard-Westlake, to the Development Site. ~~Two retaining walls are proposed on the Development Site to secure the hillside to the west. The primary retaining wall would be located on three sides (north, west and south) of the Parking Structure. Along the rear (west side) of the Parking Structure, the retaining wall would step back from east to west at the third level of the Parking Structure and would vary in height from 50 feet to 87 feet. The south face of the retaining wall would vary in height from 20 feet to 60 feet (from east to west), and the north face of the wall would vary in height from 30 feet to 70 feet (from east to west). The second retaining wall would be located on the north end of the Development Site, parallel to Coldwater Canyon Avenue. This retaining wall would vary in height from 4 feet to 28 feet (from north to south).~~

~~Due to the topography of the Development Site, the retaining walls are necessary to protect the adjacent hillsides and to construct the Parking Structure.~~ As discussed above, the retaining walls would be anchored with soil nails. Soil nail walls consist of steel bar encased in grout constructed from the top down in increments and completed with a wire mesh and shotcrete surface.

With ~~proper~~ the proposed design of the soil nail walls, impacts associated with slope stability on the ~~Proposed~~ ~~Project~~ Development Site are anticipated to be less than significant.

~~Natural slopes of varying heights exist above the proposed Parking Structure and the proposed retaining wall system. The slopes to the south of the Development Site extend to heights on the order of approximately 100 feet. The slopes to the west and north side of the site extend to heights on the order of 200 feet. The natural slopes above the proposed retaining wall system, have inclinations, in general, of approximately 1.6:1 or flatter. Existing slopes with favorable bedrock bedding inclined at 1.5:1 were determined to exhibit the minimum generally accepted factors of safety for stability (see **Appendix E.1**).~~

~~Existing slopes consisting of colluvium and alluvium at the surface do not have the generally accepted factors of safety for surficial stability thus "creep" of the colluvium on the natural soils has been observed.~~

~~The existing slopes will be modified as part of the construction of the retaining walls with soil nails. Details regarding the length of the soil nails will be completed by the wall designer. In addition to internal stability, the wall designer will evaluate the global stability of the slopes as the length of the nails determines the stability of the slopes. Fill slopes may be constructed at inclinations of 2:1 (horizontal:vertical) or flatter.~~

Erosion and Sedimentation

During construction, the potential for erosion and sedimentation during the rainy season exists. The Project would be required to implement Best Management Practices (BMPs) to reduce erosion and sedimentation impacts to an acceptable level.

Implementation of the Proposed Project would increase the area of impermeable surfaces in the drainage tributaries from 5-10 percent at present to a post-construction 14 percent, thereby increasing the potential runoff from the Development Site during storms. The Project would include ~~a bio-swale~~ flow-through planters that would be designed to increase storm water infiltration. The surface runoff from the Development Site would be collected at multiple points through catch basins with flow guard filter insert and discharged to the ~~bio-swale~~ flow-through planters. ~~The is designed to treat storm water for the first 0.75 inches of rainfall. The storm water passes through a grass mix with plant sustaining soil at the top and granular soil at the bottom layer. A 4" perforated pipe would run at the bottom to collect the infiltrated water. The sides and bottom of the grassy swale would be protected with impermeable membrane to avoid any infiltration to the ground.~~

Structural BMPs for the Project have been designed to treat storm water runoff from the greater of the first 0.75 inches of rainfall and the 85th percentile rainfall both multiplied by a factor of 1.5 ~~all storms up to and including the 85th percentile 24-hour storm event~~ (the factor of 1.5 is a result of the infeasibility of infiltration due to the Hillside Grading Ordinance). The peak mitigated discharge value (QPM) has been calculated to be ~~0.59~~ 1.48 cubic feet per second (cfs) or an equivalent volume of ~~8,115~~ 10,296 cubic feet. Thus, the calculated minimum size of the flow-through planters, using the City Department of Public Works Best Management Practices Handbook, 4th edition, is 7,676 square feet. The Project's flow-through planters have been designed for a capacity of 9,000 square feet. ~~(This value was determined using the Los Angeles County Department of Public Works method for calculating standard urban storm water mitigation plan flow rates and volumes based on 0.75-inches of rainfall.)~~

Water not de~~re~~tained on-site would be conveyed to existing storm water conveyance facilities, thereby reducing the potential for erosion occurring on-site. As such, implementation of the Proposed Project would result in less than significant impacts related to soil erosion and sedimentation.

Landform Alteration

The Project includes excavation and export of approximately ~~135,000~~ 137,000 cubic yards (140,000 cubic yards has been used conservatively) of soil to allow construction of the Parking Structure partially within the hillside (see **Figure 3.5-3**). Review and approval of a haul route will be required to be obtained from the City ~~of Los Angeles~~ Board of Building and Safety Commissioners. Compliance with conditions and mitigation measures imposed through the haul route permit process will ensure that impacts resulting from the export of earth materials will be less than significant (see Section 3.8 Transportation, Circulation and Parking for a discussion of construction traffic impacts including the haul route).

Water Quality Impacts During Construction

Construction activities would entail the use of machinery and materials handling and storage (e.g., gravel, asphalt) during all phases of the Proposed Project. These activities would entail the use of graders and other earthmoving equipment during initial preparation of each construction site. The use of this machinery and other vehicles would generate dust and would require the use of water trucks to meet South Coast Air Quality Management District (SCAQMD) fugitive dust requirements (see Section 3.2 Air Quality for a discussion of regulatory and mitigation requirements). Increased erosion and siltation could occur as a result of construction activities and the modification of existing drainage patterns. The use of water trucks to reduce dust could increase the potential for urban pollutants and silt to enter the Los Angeles River.

Accidental on-site spills of hazardous materials (e.g., fuels, solvents, paint) could also enter ground and/or surface waters, if not properly contained.

The Project would be subject to a General Construction Activity Permit because it would disturb more than one acre of soil and as such, the applicant is required to prepare and implement ~~a Stormwater Pollution and Prevention Plan (~~SWPPP~~)~~ to meet the requirements of the General Permit.

All construction activities would be required to implement storm water prevention measures identified in the SWPPP during all phases of construction. Adherence to the SWPPP and the implementation of standard ~~best management practices (~~BMPs~~)~~ during construction would reduce the potential for increased siltation, erosion and hazardous materials spills. Therefore, construction impacts associated with water quality would be less than significant.

Hydrology and Water Quality Impacts During Operation

The Proposed Project would increase the amount of impervious area on the Development Site. However, hydrological modeling indicates that surface runoff is not anticipated to substantially increase compared to existing conditions primarily because of the change in slopes (see **Appendix E.2**). The Proposed Project would not affect the runoff rates before and after the construction for 50 and 25-year storm events. For smaller storm frequency of 10 and 2 year, the Project would result in a slight increase in runoff due to the increase in impervious surfaces. However, the peak mitigated runoff and volume from the proposed development areas would be captured and treated by appropriate BMPs before discharging into the road (see below).

It is anticipated that the new Parking Structure would not only help secure the previously exposed soil and natural landscaped areas from potential mudslides, but could also help slow high storm water runoff flows from the adjacent hillside to Coldwater Canyon Avenue, especially during large storm events such as the Los Angeles County Capitol Flood 50-year storm. The new Parking Structure and supporting storm water management system infrastructure provide additional flood control and mudslide protection to Coldwater Canyon Avenue. Part of the mudslide infrastructure is a debris basin that is proposed to collect and provide temporary storage for 400 cubic yards per acre of mud/debris to meet Los Angeles Public - Building Code 2002-064. As noted above, the debris basin would provide temporary storage for close to 8 acres. The area tributary to the basin is 7.38 acres. At the north end of the Development Site, a swale to carry 10 cubic feet per second per acre would be provided to address the supplementary required debris flow of 42.5 cubic feet per second. The swale to convey the supplementary debris flow has a capacity of 51.53 cubic feet per second at the flattest section with a slope of 4 percent (**Appendix E.2**)

The surface runoff would be collected at multiple points through catch basins with filter inserts and ~~discharged in a bio-swale~~ directed in to flow-through planters. The ~~bio-swale is~~ flow-through planters are designed to treat first flush volume of storm water, which is the greater of the first 0.75 inches of rainfall or the 85th percentile rainfall, both multiplied by a factor of 1.5. The factor of 1.5 is a result of the infeasibility of infiltration due to the hillside grading ordinance. Flow-through planters are designed to treat and detain runoff without allowing seepage into the underlying soil. Pollutants are removed as the runoff passes through the soil layer and is collected in an underlying layer of gravel or drain rock. ~~The storm water passes through the grass mix at the top with plant sustaining soil at the top and granular soil at the bottom layer.~~ A ~~4"~~ perforated pipe would run at the bottom to collect the treated runoff. ~~The sides and bottom of the grassy swale would be protected with impermeable membrane to avoid any infiltration to the ground water.~~ The treated storm water would be day lighted to the street through a 4" curb drain. ~~If the first flush volume were more than the Bio-swale capacity, a hydrodynamic separator or storm filter system would be added to the system.~~

Increased development, increased density, increased human activity including vehicular activity result in increased pollutants that could enter surface and groundwater, potentially resulting in a significant impact to water quality. Pollutants of concern include trash and dried leaves, twigs from the trees and shrubs, silt, pesticides and fertilizers in the planter areas.

The Proposed Project would provide runoff and water quality treatments. Such treatments would include the reduction of storm water runoff entering the storm drainage system and on-site treatment and infiltration of storm water (see Regulatory Compliance Measures and Project Design features identified below). ~~The Proposed Project would meet Design Guidelines recommending treating 100 percent of the 85th percentile of storm water and would providing detention capacity to retain a rainfall intensity of 0.5 inches per hour.~~ Therefore, the Project would result in less than significant impacts associated with water quality impacts during operation of the Project.

The Project has prepared a plan to address the City of Los Angeles Low Impact Development (LID) Ordinance (which includes requirements to for a Standard Urban Stormwater Mitigation Plan -- SUSMP), see **Appendix E.3,** to identify and mitigate anticipated flows to the existing on- and off-site storm drain facilities and to ensure that these flows could be accommodated by existing facilities. The peak mitigated discharge value (QPM) has been calculated to be 1.48 ~~0.59~~ cfs or an equivalent volume of 10,296 ~~8115~~ cf. The SUSMP identifies appropriate treatments/BMPs to ensure that impacts would be less than significant.

~~The surface runoff from the site will be collected at multiple points through catch basins with flow guard filter insert and discharged to the bio-swale. A bio-swale will be designed to treat storm water for the first 0.75 inches of rainfall. The storm water passes through the grass mix at the top with plant sustaining soil at the top and granular soil at the bottom layer. 4” perforated pipe runs at the bottom to collect the infiltrated water. The sides and bottom of the grassy swale is protected with impermeable membrane to avoid any infiltration to the ground water. The treated storm water will be day lighted to the street through a 4” curb drain.~~

CUMULATIVE IMPACTS

Impacts associated with geology and soils are typically confined to a project site or within a very localized area and do not affect off-site areas. Cumulative development in the area could increase the overall potential for exposure to seismic hazards by potentially increasing the number of people exposed to seismic hazards. Cumulative development would be subject to established guidelines and regulations pertaining to building design and seismic safety, including those set forth in the CBC and the LAMC. As such, adherence to applicable building regulations and standard engineering practices would ensure that cumulative impacts would be less than significant.

The Project could increase the volume of storm water runoff and contribute to pollutant loading in storm water runoff, resulting in cumulative impacts to hydrology and surface water quality. However, all cumulative development would also be subject to State NPDES as well as local requirements including the LID Ordinance within the City of Los Angeles, regarding storm water quality for both construction and operation. Each project would be evaluated individually to determine appropriate BMPs and treatment measures to avoid impacts to water quality. In addition, the City of Los Angeles Department of Public Works reviews all construction projects on a case-by-case basis to ensure that sufficient local and regional drainage capacity is available. Thus, cumulative impacts to surface water hydrology and surface water quality would be less than significant.

REGULATORY COMPLIANCE MEASURES

The areas of geology, seismicity, hydrology and drainage are well-regulated. Compliance with regulatory requirements would ensure that impacts would be less than significant.

RC-GEO-1: The applicant ~~shall~~ has prepared a detailed Final Geologic and Soils Engineering ~~Geotechnical~~ Report to address site-specific geologic constraints of the site including soil conditions (including expansive soils) and stability. The Final Geologic and Soils ~~Geotechnical~~ Report ~~shall~~ ~~incorporates~~ includes ~~recommendations~~ ~~from the Preliminary Geotechnical Report~~ ~~including~~ recommendations related to erosion control, soil nail wall design, shoring and other site-specific conditions including seismicity, bedrock material, corrosivity and compressibility of soils, undocumented fill, etc. for design and construction of the Parking Structure. The applicant/contractor shall comply with all recommendations of the Final ~~Geotechnical/~~ Geologic and Soils Engineering Report and the associated approval letter from the ~~Los Angeles~~ City Department of Building and Safety. A registered geologist shall monitor that recommendations of the Final Geologic and Soils Engineering ~~Geotechnical~~ Report are implemented as appropriate.

RC-GEO-2: The Project shall be constructed in compliance with the LAMC and California Building Code and all other applicable regulations.

RC-GEO-3: The Project shall comply with the following City Department of Building and Safety requirements, prior to issuance of a grading permit for the Project:

- Prior to the issuance of a grading permit by the City Department of Building and Safety, the consulting geologist and soils engineer shall review and approve Project grading plans. This approval shall be conferred by signature on the plans which clearly indicate the geologist and/or soils engineer have reviewed the plans prepared by the design engineer and that the plans include the recommendations contained in the report.

- Prior to the commencement of grading activities, a qualified geotechnical engineer and engineering geologist shall be employed for the purpose of observing earthwork procedures and testing fills for conformance to the recommendations of the City Engineer, approved grading plans, applicable grading codes, and the geotechnical report approved to the satisfaction of the City Department of Building and Safety.

- During construction, all grading shall be carefully observed, mapped and tested (as appropriate) by the Project engineer. All grading shall be performed under the supervision of a licensed engineering geologist and/or soils engineer in accordance with applicable provisions of the LAMC and California Building Code and to the satisfaction of the City Engineer and the Superintendent of Building and Safety.

- Any recommendations prepared by the consulting geologist and/or soils engineer for correction of geologic hazards, if any, encountered during grading shall be submitted to the City Department of Building and Safety for approval prior to issuance of a Certificate of Occupancy for the Project.

- Grading and excavation activities shall be undertaken in compliance with all relevant requirements of the California Division of Industrial safety, the Occupational Safety and Health Act of 1970 and the Construction Safety Act.

RC-GEO-4: The Project shall conform to applicable criteria set forth in the Recommended Lateral Force Requirements and Commentary by the Structural Engineers Association of California.

RC-GEO-5: The Project shall comply with the parameters outlined in the most recent California Building Code as designated for site-specific soil conditions.

RC-GEO-6: The Project shall be designed to conform to the City of Los Angeles Seismic Safety Plan and additional seismic safety requirements not encompassed by compliance with the LAMC and California Building Code as may be identified by the City Department of Building and Safety prior to Plan Check approval on each building.

RC-GEO-7: During the rainy season (between October 1 and April 15 per the Los Angeles Building Code, Sec. 91.7007.1), an erosion control plan that identifies Best Management Practices (BMPs) shall be implemented to the satisfaction of the City of Los Angeles Department of Building and Safety to minimize potential erosion during construction. The erosion control plan shall be a condition to issuance of any grading permit.

RC-GEO-8: Appropriate erosion control and drainage devices shall be incorporated to the satisfaction of the City Department of Building and Safety. Such measures include interceptor terraces, berms, vee-channels, and inlet and outlet structures,

RC-GEO-9: If temporary excavation slopes are to be maintained during the rainy season, all drainage shall be directed away from the top of the slope. No water shall be allowed to flow uncontrolled over the face of any temporary or permanent slope.

RC-GEO-10: Provisions shall be made for adequate surface drainage away from areas of excavation as well as protection of excavated areas from flooding. The grading contractor shall control surface water and the transportation of silt and sediment.

RC-GEO-11: The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by grading and hauling, and at all times shall provide reasonable control of dust caused by wind, at the sole discretion of the grading inspector.

RC-GEO-12: Hauling and grading equipment shall be kept in good operating condition and muffled as required by law.

RC-GEO-13: The Traffic Coordinating Section of the Los Angeles Police Department shall be notified at least 24 hours prior to the start of hauling.

RC-GEO-14: Loads shall be secured by trimming or watering or may be covered to prevent the spilling or blowing of the earth material. If the load, where it contacts the sides, front, and back of the truck cargo container area, remains six inches from the upper edge of the container area, and if the load does not extend, at its peak, above any part of the upper edge of the cargo container area, the load is not required to be covered, pursuant to California Vehicle Code Section 23114 (e) (4).

RC-GEO-15: Trucks are to be watered at the export site to prevent blowing dirt and are to be cleaned of loose earth at the export site to prevent spilling.

RC-GEO-16: Streets shall be cleaned of spilled materials at the termination of each workday.

RC-GEO-17: The applicant shall be in conformance with the State of California, Department of Transportation policy regarding movements of reducible loads.

RC-GEO-18: The applicant shall comply with all regulations set forth by the State of California Department of Motor Vehicles pertaining to the hauling of earth.

RC-GEO-19: A copy of the approval letter from the City, the approved haul route and the approved grading plans shall be available on the job site at all times.

RC-GEO-20: The applicant shall notify the Street Services Investigation & Enforcement Division at least 72 hours prior to the beginning of hauling operations and shall also notify the Division immediately upon completion of hauling operations.

RC-GEO-21: No person shall perform any grading within areas designated "hillside" unless a copy of the permit is in the possession of a responsible person and available at the site for display upon request.

RC-GEO-22: A log noting the dates of hauling and the number of trips (i.e. trucks) per day shall be available on the job site at all times.

RC-GEO-23: "Truck Crossing" warning signs shall be placed 300 feet in advance of the exit in each direction.

RC-GEO-24: Flag persons shall be required at the job site to assist the trucks in and out of the Project area. Flag persons and warning signs shall be in compliance with Part II of the latest Edition of "Work Area Traffic Control Handbook." The pedestrians shall be allowed to clear first prior to permitting the trucks to ingress or egress.

RC-HYDRO-1: The Project shall comply with the Low Impact Development (LID) Ordinance. Construction contractors of individual projects shall be required to control erosion and runoff as necessary through the use of site appropriate grading practices. Specifically, the construction contractor shall plan for and implement Best Management Practice (BMP) during construction to the satisfaction of the City Department of Public Works, Bureau of Engineering, Stormwater Management Division City of Los Angeles, and/or other designated responsible agencies/departments.

RC-HYDRO-2: Sufficient area shall be available so that runoff can be collected in flow-through planters ~~bio swales~~ as appropriate and directed to existing curb and gutter or storm drains. ~~Swale~~ Flow-through planter design shall be coordinated with on-site hazardous materials issues as necessary.

RC-HYDRO-3: The Project shall comply with applicable NPDES permit requirements, including preparation and implementation of a Stormwater Pollution Prevention Plan and Standard Urban Stormwater Mitigation Plan (SUSMP) in accordance with the Los Angeles Municipal Strom Water permit. The SUSMP shall identify post development peak runoff, conserve natural areas, minimize storm water pollutants, protect slopes and channels, and post construction Best Management Practices (BMPs) and other items as required by the permit.

RC-HYDRO-4: Runoff shall be treated, as required by SUSMP regulations, prior to discharging into existing storm drain systems.

RC-HYDRO-5: All wastes from construction shall be disposed of properly. Appropriately labeled recycling bins shall be used to recycle construction materials including: solvents, water-based paints, vehicle fluids, broken asphalt and concrete; wood, and vegetation. Non-recyclable materials/wastes shall be taken to an appropriate landfill. Toxic wastes shall be discarded at a licensed regulated disposal site.

RC-HYDRO-6: Leaks, drips, and spills shall be cleaned up immediately to prevent contaminated soil on paved surfaces that can be washed away into the storm drains.

RC-HYDRO-7: Material spills shall not be hosed down at the pavement if alternative clean-up methods are available, such as dry cleanup methods.

RC-HYDRO-8: Dumpsters shall be covered and maintained. Uncovered dumpsters shall be required to be placed under a roof or covered with tarps or plastic sheeting.

RC-HYDRO-9: Gravel approaches and dirt-tracking devices shall be used to reduce soil compaction and limit the tracking of sediment into streets.

RC-HYDRO-10: All vehicle/equipment maintenance, repair, and washing shall be conducted away from storm drains. All major repairs shall be required to be conducted at an appropriate location. Drip pans or drop cloths shall be required to catch drips and spills.

RC-HYDRO-11: Project construction shall comply with the General Construction Activity Stormwater Permit (General Permit) and the City's Development Construction Program pursuant to the NPDES Permit (Permit No. CA00401).

RC-HYDRO-12: Article 4.4 of Chapter IV of the LAMC specifies Stormwater and Urban Runoff Pollution Control requirements, including the application of Best Management Practices (BMPs). Chapter IX, Division 70 of the LAMC addresses grading, excavations, and fills. Applicants must meet the requirements of the Standard Urban Stormwater Mitigation Plan (SUSMP) approved by the Los Angeles Regional Water Quality Control Board, including the following, where applicable:

- The Project applicant shall implement storm water BMPs to treat and infiltrate the runoff from a storm event producing 3/4 inch of rainfall in a 24-hour period. The design of structural BMPs shall be in accordance with the Development Best Management Practices Handbook Part B Planning Activities. A signed certificate from a California licensed civil engineer or licensed architect that the proposed BMPs meet this numerical threshold standard is required.

- Post development peak storm water runoff discharge rates shall not exceed the estimated predevelopment rate for developments where the increase peak storm water discharge rate will result in increased potential for downstream erosion.

- Clearing and grading of native vegetation at the Project Site shall be limited to the minimum needed to construct the Project, allow access, and provide fire protection.

- Trees and other vegetation shall be maximized by planting additional vegetation, clustering tree areas, and promoting the use of native and/or drought tolerant plants.

- Natural vegetation shall be promoted in landscaped areas.

- Any identified riparian areas shall be preserved.

- Appropriate erosion control and drainage devices, such as interceptor terraces, berms, vee-channels, and inlet and outlet structures, as specified by Section 91.7013 of the Building Code will be incorporated.

- Outlets of culverts, conduits or channels from erosion by discharge velocities shall be protected by installing a rock outlet protection. Rock outlet protection is physical devise composed of rock, grouted riprap, or concrete rubble placed at the outlet of a pipe. Sediment traps shall be installed below the pipe-outlet. Inspect, repair, and maintain the outlet protection after each significant rain.

- Any connection to the sanitary sewer will have authorization from the Bureau of Sanitation.

- Impervious surface area will be reduced by using permeable pavement materials where appropriate. These include pervious concrete/asphalt; unit pavers, i.e. turf block; and granular materials, i.e. crushed aggregates, cobbles.

- Roof runoff systems will be installed where site is suitable for installation.

- Messages that prohibit the dumping of improper materials into the storm drain system adjacent to storm drain inlets shall be painted.

- All storm drain inlets and catch basins within the Project area shall be stenciled with prohibitive language (such as NO DUMPING - DRAINS TO OCEAN) and/or graphical icons to discourage illegal dumping.

- Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the Project area.

- Legibility of stencils and signs must be maintained.

- Materials with the potential to contaminate storm water must be: (1) placed in an enclosure such as, but not limited to, a cabinet, shed, or similar storm water conveyance system; or (2) protected by secondary containment structures such as berms, dikes, or curbs.

- The storage area will be paved and sufficiently impervious to contain leaks and spills.

- The storage area shall have a roof or awning to minimize collection of storm water within the secondary containment area.

- An efficient irrigation system shall be designed to minimize runoff including: drip irrigation for shrubs to limit excessive spray; shutoff devices to prevent irrigation after significant precipitation; and flow reducers.

- Cleaning of oily vents and equipment will be performed within designated covered area, sloped for wash water collection, and with a pretreatment facility for wash water before discharging to properly connected sanitary sewer with a CPI type oil/water separator. The separator unit must be: designed to handle the quantity of flows; removed for cleaning on a regular basis to remove any solids; and the oil absorbent pads must be replaced regularly according to manufacturer's specifications.

- Trash dumpsters will be stored both under cover and with drains routed to the sanitary sewer or use non-leaking and water tight dumpsters with lids. Containers will be washed in an area with properly connected sanitary sewer.

- Wastes, including paper, glass, aluminum, oil and grease will be reduced and recycled.

- Liquid storage tanks (drums and dumpsters) will be stored in designated paved areas with impervious surfaces in order to contain leaks and spills. A secondary containment system such as berms, curbs, or dikes shall be installed. Drip pans or absorbent materials whenever grease containers are emptied will be used.

- The owner(s) of the property will prepare and execute a covenant and agreement (Planning Department General form CP-6770) satisfactory to the Planning Department binding the owners to post construction maintenance on the structural BMPs in accordance with the Standard Urban Storm water Mitigation Plan and or per manufacturer's instructions.

The Draft SUSMP prepared for the Project includes the following project-specific BMPs:

A. Structural BMPs

1. Kristar FloGard Plus Catch Basin Filter Inserts. Kristar Catch Basin Filter Inserts, LA City research reference RR#5591 and LA City approval reference RR#5584, by KriStar Enterprises, Inc., which will be installed in ~~both~~ catch basins~~, are being proposed~~ as structural BMPs for the removal of silt and debris in storm water runoff. The filter inserts have been selected to accommodate, up to and including, the 85th percentile storm event multiplied by a factor of 1.5. ~~See appendix "A" for calculations. See Appendix "B" for additional information including details and flow capacities.~~

2. Flow-through Planter Box. In addition to the catch basin filter insert, a flow-through planter box is ~~being~~ proposed as a structural BMP~~s~~ for the removal of silt and debris in storm water runoff. The ~~bio-swale~~ flow-through planter box has been designed to accommodate, up to and including, the 85th percentile storm event multiplied by a factor of 1.5. See Exhibit 1 of **Appendix E.2**. for details.

3. *Permeable Pavement.* Pervious concrete pavement along with permeable brick pavers will be considered in the final design to assist with decreasing the post-construction impervious areas. It is important to note that these pavement sections will require a geotextile liner along with an under-drain system to mitigate large storm events.

~~Exhibits 1 and 2 in **Appendix E.2** show the proposed Grading and Drainage Plan and the SUSMP Exhibit respectively.~~

B. Non-structural BMPs

1. Open Paved Areas and Planter Areas.

a. Regular sweeping of all open and planter areas, at a minimum, on a weekly basis in order to prevent dispersal of pollutants that may collect on those surfaces.

b. Regular pruning of the trees and shrubs in the planter areas to avoid formation of dried leaves and twigs, which are normally blown by the wind during windy days. These dried leaves are likely to clog the surface inlets of the drainage system when rain comes, which would result to flooding of the surrounding area due to reduced flow capacities of the inlets.

c. Trash and recycling containers shall be used such that, if they are to be located outside or apart from the principal structure, they are fully enclosed and watertight in order to prevent contact of storm water with waste matter, which can be a potential source of bacteria and other pollutants in runoff. These containers shall be emptied and the wastes disposed of properly on a regular basis.

2. Education and Training. The Harvard-Westlake School Facilities Department shall be aware of the structural BMPs installed in the Project. Information materials, such as brochures, shall be available in the Facilities Department offices for their complete information. The Harvard-Westlake School Facilities Department staff shall also be briefed about chemical management and proper methods of handling and disposal of wastes and should understand the on-site BMPs and their maintenance requirements.

3. Landscaping. Minimize the use of pesticides and fertilizers to the maximum extent practical.

4. Monitoring and Maintenance

a. All BMPs shall be operated, monitored, and maintained for the life of the Project and at a minimum, all structural BMPs shall be inspected, cleaned-out, and where necessary, repaired, at the following minimum frequencies: 1) prior to October 15th each year; 2) during each month between October 15th and April 15th of each year and, 3) at least twice during the dry season (between April 16 and October 14 of every year).

b. Maintenance procedures and recommendations outlined by KriStar Enterprises, Inc. shall be followed by the owner to ensure proper performance of the filter insert.

c. Debris and other water pollutants removed from structural BMPs during cleanout shall be contained and disposed of in a proper manner.

d. The drainage system and the associated structures and BMPs shall be maintained according to manufacturer's specification to ensure maximum pollutant removal efficiencies.

SIGNIFICANCE AFTER MITIGATION

With implementation of the Regulatory Compliance Measures identified above, the potential for the Proposed Project to result in impacts related to geology, soils and hydrology would be similar to other projects in Southern California and considered less than significant.

3.6 LAND USE

This section addresses the impacts of the Proposed Project on existing and planned land uses in the Project vicinity. The following analysis considers the Project's compatibility with applicable regional and City of Los Angeles plans, policies, and regulations.

EXISTING CONDITIONS

Development Site and Surrounding Land Uses

The Proposed Project Site is located in the southern portion of the San Fernando Valley on the northern edge of the Santa Monica Mountain range that bisects the City of Los Angeles. The Harvard-Westlake Campus is located on land that mostly slopes gently to the east. The Development Site includes an area of flat/gently sloping land and then slopes steeply to the west.

The Harvard-Westlake Campus and Development Site are surrounded by single-family homes and designated open space (Coldwater Canyon Open Space, owned by the Mountains Recreation and Conservation Authority) located on the southwestern border of the Development Site. St. Michael and All Angels Episcopal Church (including Sunnyside Preschool) is located immediately south of the Harvard-Westlake Campus.

Residential uses immediately north of the ~~school~~ Harvard-Westlake Campus are located on relatively flat land, but the homes surrounding the Development Site (north, northwest and south) and the homes to the east of the ~~school~~ Harvard-Westlake Campus and south of the ~~church~~ St. Michael and All Angels Episcopal Church are located on steep hillsides that face the canyon floor (Coldwater Canyon Avenue). Homes to the east of the ~~school~~ Harvard-Westlake Campus (several of them owned by the Harvard-Westlake School) overlook the Harvard-Westlake Campus and Development Site.

The Development Site is immediately west of the Harvard-Westlake Campus across Coldwater Canyon Avenue. The Development Site includes a steeply sloping hillside that slopes away from Coldwater Canyon Avenue. The east-facing slope, a portion of which is within the Development Site, extends up from Coldwater Canyon with up to approximately 300 feet of elevation gain from Coldwater Canyon Avenue to the ridgeline above to the southwest. Approximately 100 vertical feet of elevation gain occurs on the Development Site. The smaller north facing slope, most of it within the Development Site, gains about 100 feet in elevation. These slopes topographically separate the eastern (flatter) area of the site, which comprises over half the Development Site, from adjacent uses (homes to the north, west and south and open space to the west and southwest).

The eastern/central portion of the Development Site adjacent to Coldwater Canyon Avenue was previously occupied by ~~two~~ four single-family homes; two were destroyed after the 1994 Northridge Earthquake and two ~~that~~ were demolished in 2011. One vacant single-family house, owned by Harvard-Westlake School, remains on the southern end of the Development Site, south of the paper street Hacienda Drive, which has access from Potosi Avenue. The relatively flat area where the homes were located as well as other graded areas of the Development Site occupy over half the Development Site. Portions of the graded area are being used for temporary storage of construction equipment and supplies.

REGULATORY FRAMEWORK

SCAG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and Regional Comprehensive Plan (RCP)

The Southern California Association of Governments (SCAG) is the Federally-designated metropolitan planning organization for six southern California counties, including the County~~ of Los Angeles~~. As such, SCAG is mandated to create regional plans that address transportation, growth management, hazardous waste management, and air quality.

Regional Transportation Plan. SCAG's 2012 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), adopted in April 2012, presents a long-term transportation vision through the year 2035 for the six county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. The 2012 RTP/SCS was produced through a balanced approach that considered system preservation, system operation and management, improved coordination between land-use decisions and transportation investments, and strategic expansion. The 2012 RTP/SCS presents an investment framework for addressing the region's transportation and related challenges. Specific issues addressed within the 2008 RTP include mobility challenges, air quality challenges, climate change, energy, transportation finance challenges, security and safety, environmental justice and mitigation, revenues and expenditures, transportation conformity, implementation and monitoring, corridor preservation, and future connections and growth. The RTP/SCS provides a basic policy and program framework for long-term investment in the regional transportation system in a coordinated, cooperative and continuous manner. Transportation investments in the SCAG region that receive State or federal transportation funds must be consistent with the RTP/SCS and must be included in the Regional Transportation Improvement Program ("RTIP") when ready for funding.

Regional Comprehensive Plan. SCAG has also prepared the 2008 Regional Comprehensive Plan (RCP) in response to SCAG's Regional Council directive in the 2002 Strategic Plan to define solutions to interrelated housing, traffic, water, air quality, and other regional challenges.[1] The 2008 RCP is an advisory document that describes future conditions if current trends continue, defines a vision for a healthier region, and recommends an Action Plan with a target year of 2035. The RCP may be voluntarily used by local jurisdictions in developing local plans and addressing local issues of regional significance. The plan includes nine chapters addressing land use and housing, transportation, air quality, energy, open space, water, solid waste, economy, and security and emergency preparedness. In general the RCP seeks to encourage a compact development pattern to reduce vehicle trips and vehicle trip length.

South Coast Air Quality Management District Air Quality Management Plan

The Project area is located within the jurisdiction of the South Coast Air Quality Management District ~~(~~SCAQMD~~)~~. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, which includes all of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The Project area is located in the South Coast Air Basin, a subregion of the SCAQMD. The SCAQMD Air Quality Management Plan (AQMP) sets forth an attainment program based on projected population growth and air quality management and control measures. The SCAQMD is responsible for compliance with federal and state Air Quality Plans in the ~~Los Angeles~~ County area. In conjunction with SCAG, the

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1 SCAG, 2008 Regional Comprehensive Plan, http://www.scag.ca.gov/rcp/pdf/finalrcp/f2008RCP_ExecSum.pdf, accessed August 15, 2012.

SCAQMD is responsible for establishing a comprehensive program to achieve federal and state air quality standards. The AQMP is incorporated into the State Implementation Program (SIP), which constitutes all AQMPs prepared by all air quality management districts in the state. The SIP is the State's plan for compliance with state and federal air quality standards. See Section 3.2 Air Quality for a more discussion of the AQMP.

Metro Congestion Management Program

The Los Angeles County Metropolitan Transportation Authority (Metro) administers the Congestion Management Program (CMP), a State-mandated program designed to provide comprehensive long-range traffic planning on a regional basis. The 2010 CMP (adopted in October 2010), includes a hierarchy of highways and roadways with minimum level of service standards, transit standards, a trip reduction and travel demand management element, a program to analyze the impacts of local land use decisions on the regional transportation system, a seven-year capital improvement program, and a county-wide computer model used to evaluate traffic congestion and recommend relief strategies and actions. CMP guidelines specify that those designated roadway intersections, to which a project could add 50 or more trips during either A.M. or P.M. peak hour, be evaluated. The guidelines also require evaluation of freeway segments to which a project could add 150 or more trips in each direction during peak hours. See Section 3.7 Transportation, Circulation and Parking for a discussion of how the Project addresses the 2010 CMP.

City of Los Angeles General Plan Framework Element

The City of Los Angeles General Plan Framework (Framework) (adopted in December 11, 1996; re-adopted August 8, 2001) is a special purpose element of the General Plan that establishes the vision for the future of the City by establishing development policy at a citywide level and within a citywide context. The Framework provides a generalized representation of the City's long-range land use, defines citywide policies related to growth and sets forth an estimate of population and employment growth to the year 2010 that can be used to guide the planning of infrastructure and public services. The Framework determines the most effective distribution of growth in relation to environmental and economic goals and serves as the subregional input to SCAG documents. The Framework provides a context for cooperative planning between the City of Los Angeles, adjacent cities and the County of Los Angeles and, along with the Air Quality and Transportation Elements, ensures conformity between the City's General Plan, SCAG documents and the Air Quality Management Plan (AQMP).

Mobility Plan 2035

The City Council approved the MP 2035 on August 11, 2015. MP 2035 provides the policy foundation for achieving a transportation system that balances the needs of all road users. As an update to the City's General Plan Transportation Element (last adopted in 1999), MP 2035 incorporates "complete streets" principles and lays the policy foundation for how future generations of Angelenos interact with their streets. It addresses the Complete Street Act (AB 1358, amending Sections 65040.2 and 65302 of the Government Code) requirements to provide a balanced multi-modal network.

Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan

The City of Los Angeles General Plan includes 35 community plans in place of a Land Use Element. The community plans are oriented toward specific geographic areas of the City and define locally the General Plan's citywide policies and programs. The Project area is located within the boundaries of the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan. Project consistency with goals and objectives of the community plan is addressed in the impact analysis.

The Project Site is located within three separate General Plan Land Use Designations (see **Figure 3.6-1**):

– The northern ~~1/3~~ ¼ of the ~~Project~~ Development Site is designated Very Low Residential
– The southern/central ~~2/3~~ 1/2 ~~portion~~ of the ~~Project~~ Development Site is designated Minimum Residential
– The southern ¼ of the Development Site is designated Low Residential.

The Very Low Residential designation of the northern ~~1/3~~ ¼ portion of the Project Site corresponds to the RE20, RA, RE15, and RE11 Zones, according to the Land Use Map. The RE40 Zoning of the upper ~~1/3~~ 75 percent ~~portion~~ of the ~~Project~~ Development Site ~~(see discussion below)~~ is not listed as a corresponding zone with the Very Low Residential land use category; however, the RE40 Zone is more restrictive than the RE20 and RE15 Zones, and therefore the RE40 Zone would be permitted in this land use category.

The southern/central 1/2 ~~2/3 portion~~ of the ~~Project~~ Development Site, is designated for Minimum Residential land uses by the Land Use Map, with OS, A1, A2, R1-1 and RE40 as the corresponding zones. The Low Residential designation of the southern ¼ of the Development Site corresponds to the R1-1 zoning. ~~While there is consistency between the portions of the Project Site zoned RE40 and designated for Minimum Residential land use, the RE15 Zone (as it applies to a portion of Lot 1111) is not listed as a Zone that corresponds to the Minimum Residential land use category. The Minimum Residential designation is the most restrictive residential land use category that would not permit a less restrictive zone (such as RE15.) However, this inconsistency does not affect the Project since, regardless,~~ The Project requires a Conditional Use Permit to allow school uses in the RE Zone.

The ~~Development~~ Project Site is located in the Studio City sub-area of the planning area, which is generally characterized with a collection of production and post-production businesses and, is generally bounded by Lankershim on the east and Fulton on the west. CBS Studio Center is a major employer in the area, and is the tenant of the largest industrial site. Properties located along Ventura Boulevard are developed with a mix of pedestrian oriented storefronts and office structures. Laurel Canyon Boulevard serves as the focal point of Studio City with its intense commercial development at the respective four corners. Uses in the vicinity of the Harvard-Westlake Campus and Development Site are mostly single-family residential, with a church located immediately south of the Harvard-Westlake Campus.

Desirable Open Space Special Boundary

No footnotes are imposed on the Project Site under the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan and the corresponding General Plan Land Use Map (updated March 4, 2008.) However, the southern ~~2/3 portion~~ 75 percent of the Development Site, which is designated for Minimum and Low Residential land use, is also located within the Desirable Open Space Special Boundary. Footnote 7 to the General Plan Land Use Map, defines Desirable Open Space as follows:

> "Desirable Open Space is land which possess open space characteristics which should be protected and where additional development controls such as proposed in this Plan and Open Space Plan are needed to conserve such characteristics. These lands may be either publicly or privately owned. Conservation of such characteristics is needed to ensure the usefulness, safety and desirability of adjacent lands and to maintain the overall health, safety, welfare and attractiveness of the community."

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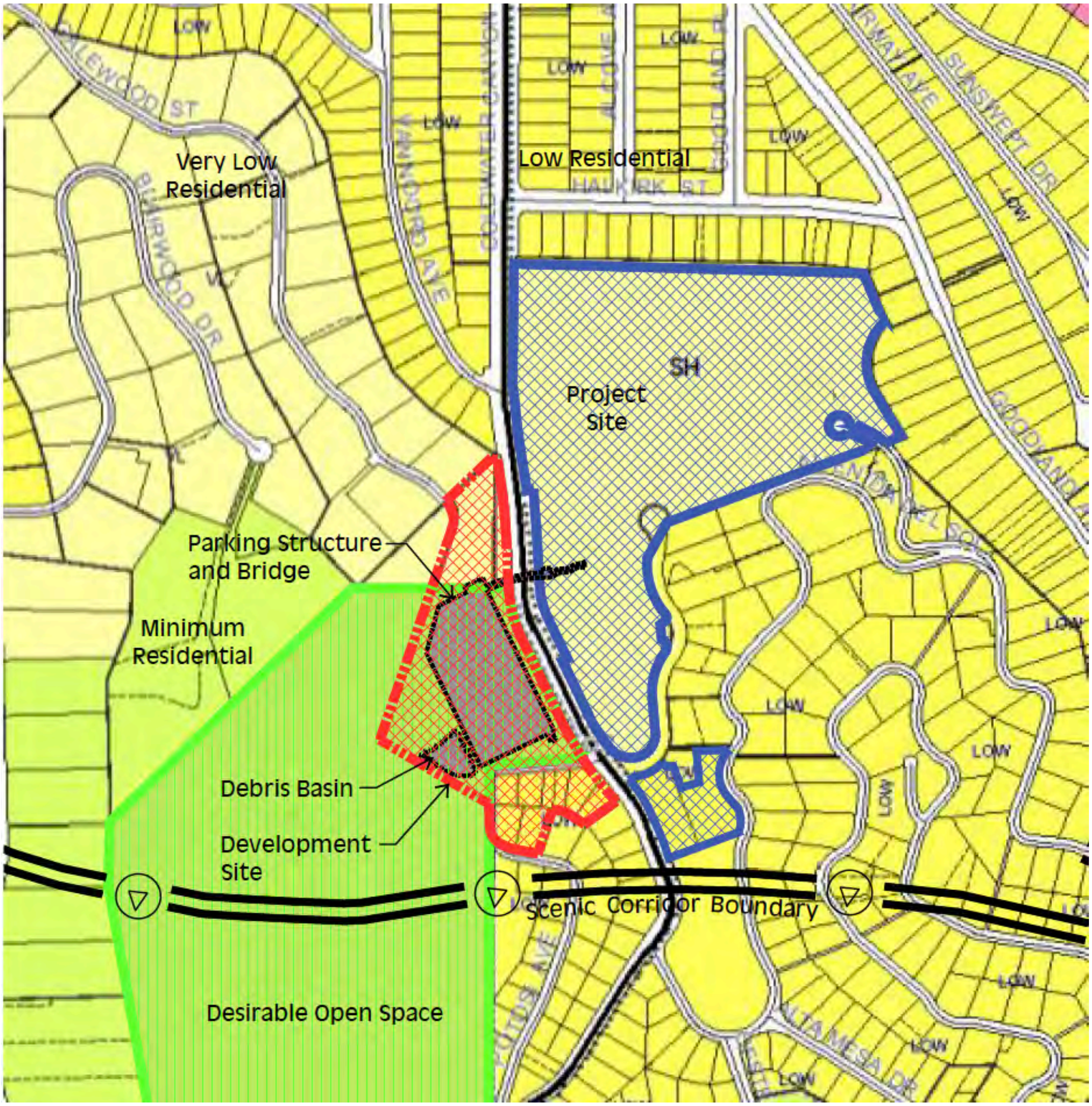


Figure 3.6-1 : Land Use Designations on the Development Site and in the Vicinity
Source: http://planning.lacity.org/complan/valley/PDF/shrplanmap.pdf

Zoning

The City ~~of Los Angeles~~ Planning and Zoning Code (LAMC Chapter I, ~~Los Angeles Municipal Code~~) identifies specific uses allowed in the various designated zones and includes detailed standards such as height limits, setbacks, parking standards, etc., as appropriate for each zone. The ~~Project~~ Development Site is located within two separate Zones (see **Figure 3.6-2**). The majority of the ~~Project~~ Development Site is zoned RE40-1-H. ~~while the southeastern/ most lot of the Project Site (a portion of Lot 1111) is zoned RE15-1-H~~. The southern 25 percent of the Development Site is zoned R1-1.

~~A Zone Change Ordinance (Ordinance No. 158,726, effective March 29, 1984) and associated Map indicates that the majority of the Development Site, as well as other properties generally located west of Coldwater Canyon Avenue and north of Mulholland Drive, were changed from the RE15-1-H Zone to the RE40-1-H Zone. However, a boundary line drawn on the Zone Change Map separates Lot 1111 from the rest of the Development Site, indicating that this portion of Lot 1111 was not included in the Zone Change to the RE40-1-H and thus remains zoned RE15-1-H.~~

Section 12.21-C.8 of the ~~Los Angeles Municipal Code~~ LAMC addresses, "Retaining Walls in Hillside Areas. (Added by Ord. No. 176,445, Eff. 3/9/05.) This subdivision applies to retaining walls that meet all of the following criteria: located in the A or R Zones (including the RA Zone), located on land designated as a Hillside Area on the Bureau of Engineering Basic Grid Map No. A-13372, *and located on a lot developed or to be developed with dwelling units*. For purposes of this subdivision, a "retaining wall" shall be defined as a freestanding continuous structure, as viewed from the top, intended to support earth, which is not attached to a building…." (Emphasis added.)

Section 12.21-C.10 of the LAMC addresses "Maximum Residential Floor Area" (added by Ord. No. 181,624, effective 5/9/11). This subdivision applies to all properties zoned R1, RS, RE (9, 11, 15, 20, and 40), and RA and designated as Hillside Area on the Department of City Planning Hillside Area Map. Residential Floor Area (RFA) is the area in square feet confined within the exterior walls of a building. Basements, covered breezeways and 200 square feet per required covered parking area are exempt from the calculation of RFA. RFA is determined through the preparation of a Slope Analysis Map prepared by a registered civil engineer.

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a Project would have a significant land use impact if it:

- Physically divides an established community;
- Conflicts with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflicts with any applicable habitat conservation plan or natural community conservation plan.

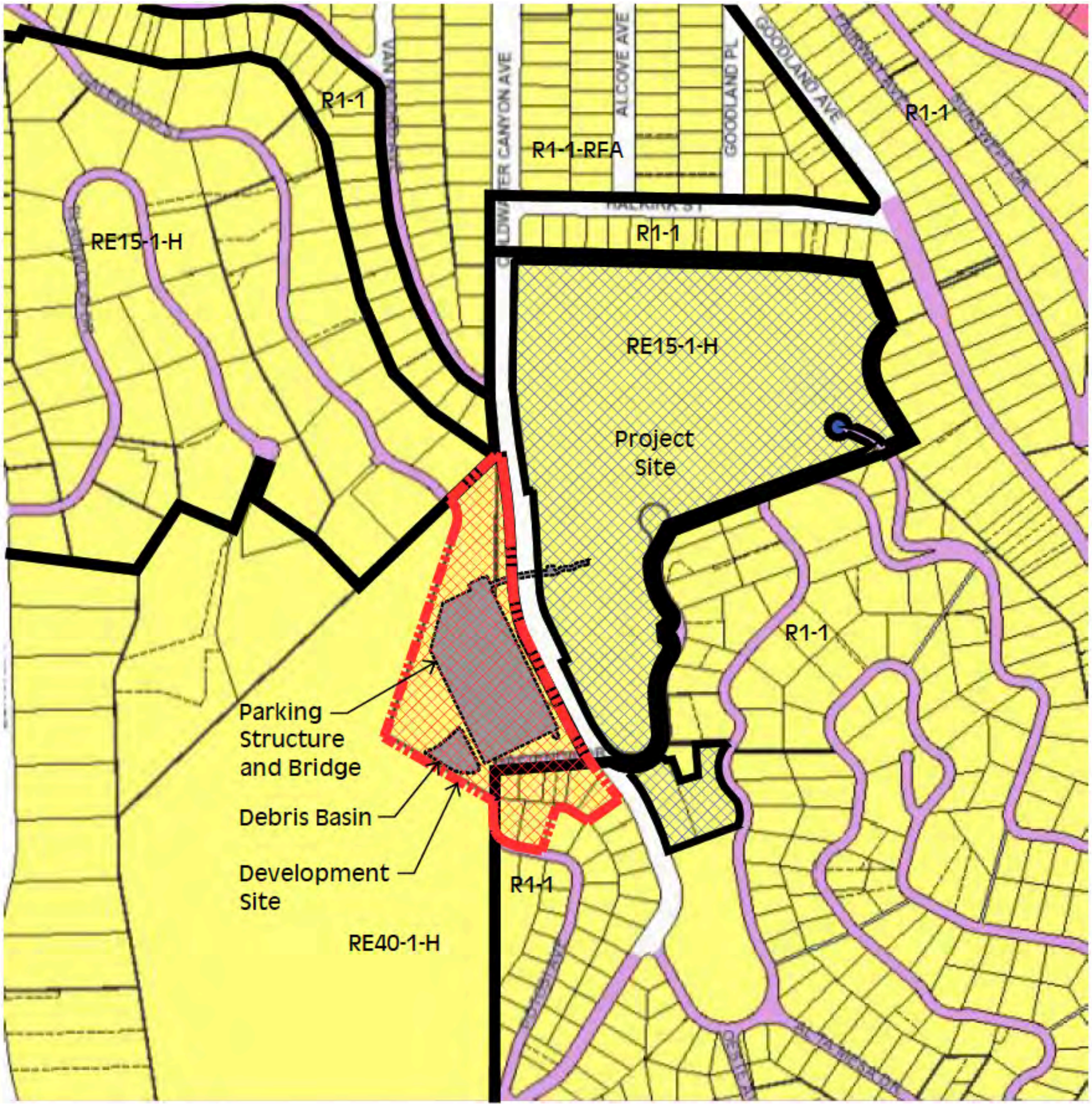


Figure 3.6-2: Zoning on the Development Site and in the Vicinity

SOURCE: http://zimas.lacity.org and City of Los Angeles, 2015

The ~~*City of Los Angeles*~~ L.A. CEQA Thresholds Guide states that the determination of significance shall be made on a case-by-case basis, considering the following factors:

- Whether the proposal is consistent with the adopted land use/density designation in the Community Plan, redevelopment plan (or specific plan for the site); and

- Whether the proposal is inconsistent with the General Plan or adopted environmental goals or policies contained in other applicable plans.

Based on the factors presented above, ~~the~~ a project would be considered to have a significant land use consistency impact if it was found to be in substantial conflict with either the adopted Community Plan, or with the whole of relevant environmental policies in other applicable plans.

With regard to impacts associated with land use compatibility, the ~~*City of Los Angeles*~~ L.A. CEQA Thresholds Guide states that the determination of significance shall be made on a case-by-case basis, considering the following factors:

- The extent of the area that would be impacted, the nature and degree of impacts, and the type of land uses within that area;

- The extent to which existing neighborhoods, communities, or land uses would be disrupted, divided or isolated, and the duration of the disruptions; and

- The number, degree, and type of secondary impacts to surrounding land uses that could result from implementation of the Proposed Project.

IMPACTS

Proposed Land Uses

The Project proposes a Parking Structure with rooftop ~~athletic~~ practice field (with lights) as an ancillary use to the adjacent (separated by Coldwater Canyon Avenue) Harvard-Westlake Campus and a pedestrian bridge to connect the Development Site to the Campus. The ~~site~~ Development Site is presently ~~vacant (two single-family homes were demolished in 2011)~~ occupied by one vacant single-family house on the southern end of the Development Site, south of the paper street Hacienda Drive, which has access from Potosi Avenue. The graded area of the ~~site~~ Development Site has been (but is not currently) ~~is currently~~ used for storing construction materials and supplies. The Project would assist in relieving parking impacts on adjacent neighborhoods, improve traffic flow along Coldwater Canyon Avenue, and provide much-needed practice facilities ~~for student ball games~~ (primarily soccer and football). Not only would the Parking Structure relieve Coldwater Canyon Avenue and the adjacent neighborhood of most of the student parking that currently occurs on public streets, but it would also improve traffic flow along the Project's frontage on Coldwater Canyon Avenue ~~from the school to Ventura Boulevard~~. It would also improve student and driver safety by providing a logical, efficient traffic flow for student pick-up and drop-off as well as through a grade-separated pedestrian bridge that would eliminate pedestrian/vehicle conflicts for users of the Parking Structure and remove buses from Coldwater Canyon Boulevard by reconfiguring the vehicular circulation and surface parking lots on the Harvard-Westlake Campus to accommodate off-street bus pick-up, drop-off and parking.

Division, Disruption or Isolation of an Existing Community or Neighborhood.

The Harvard-Westlake Campus and Development Site are currently mostly surrounded by single-family residential uses – except for the St. Michael and All Angels Church located immediately south of the campus, and the Coldwater Canyon Open Space located to the west and southwest of the Development Site. The Development Site is immediately adjacent to the Harvard-Westlake Campus, separated by Coldwater Canyon Avenue. Residential and open space uses that border the Development Site are substantially separated from the Development Site by topography. The north and east-facing slopes that occupy ~~more than~~ approximately a third of the Development Site are heavily vegetated and provide a substantial buffer from adjacent uses. Therefore, the Project would not divide, disrupt or isolate an existing community.

Consistency with Surrounding Land Uses

On completion of the Project, the ~~Proposed~~ Parking Structure would be compatible with other educational uses already located within the vicinity. However, temporary construction activities could adversely impact school activities especially during grading operations (see Section ~~3.2 Air Quality and~~ 3.7 Noise). To the south of the Harvard-Westlake Campus, on the east side of Coldwater Canyon Avenue, is Saint Michael and All Angels Episcopal Church located at 3646 Coldwater Canyon in the R1 Zone. Saint Michael's leases school space to the Sunnyside Preschool, which has received Conditional Use approval for its use and operation (under city Planning Department Case ZA-2008-4053-CU). Saint Michael's also offers a Sunday school. In addition, a site owned by TreePeople ~~site~~ is located further to the southwest at 12601 Mulholland Drive. The TreePeople site, which is zoned OS-1XL with a General Plan Land Use designation of Open Space, includes a recreation/education center with related facilities operating under a Conditional Use Permit.

~~The Project would~~ By allowing the existing Harvard-Westlake Campus to use land across Coldwater Canyon Avenue ~~from~~ on the Development Site to provide student parking, ~~and~~ the Project would disincentivize cars parking on Coldwater Canyon Avenue and in the residential neighborhood to the north.

The Project would feature in views from private homes and gardens and the adjacent open space use (see Section 3.1 Aesthetics). Proposed roadway improvements that would occur in conjunction with the Project would improve traffic flow in the vicinity of the Harvard-Westlake Campus ~~(as far as Ventura Boulevard)~~, thus improving access for people using this corridor as part of their commute. Therefore, the Project would not interfere substantially with existing uses.

Consistency With Applicable Land Use Plans

General Plan Framework

The General Plan Framework (Framework) contains goals, objectives and policies for the provision, management, and conservation of the City's open space resources. The Framework notes that "open space" is defined at a broader level than the traditional zones that have been used by the City. As such, open space encompasses both "publicly- and privately-owned properties that are unimproved and used for the preservation of natural resources, managed production of resources, outdoor recreation, and protection of life and property due to natural hazards." ~~[The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 2001, Chapter 6, Open Space and Conservation, Introduction.]~~ (The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 2001, Chapter 6, Open Space and Conservation, Introduction.)

The Framework recognizes that the "difficulty in acquiring large, contiguous tracts of land reduces the likelihood of creating new regional parks the size of Griffith Park or smaller community and neighborhood parks." ~~[The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 2001, Chapter 6, Open Space and Conservation, Summary of Open Space Characteristics and Condition, Paragraph 4, Issue No. 2]~~ (The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 2001, Chapter 6, Open Space and Conservation, Summary of Open Space Characteristics and Condition, Paragraph 4, Issue No. 2) The Framework recognizes that discrepancies in the amount of open space that "exists among communities results in the more densely populated areas having insufficient open space to meet the needs of their population." ~~[The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 2001, Chapter 6, Open Space and Conservation, Summary of Open Space Characteristics and Condition, Para. 4, Issue No. 4.]~~ (The Citywide General Plan Framework, An Element of the City of Los Angeles General Plan, 2001, Chapter 6, Open Space and Conservation, Summary of Open Space Characteristics and Condition, Para. 4, Issue No. 4.)

A significant portion of the Development Site is not undisturbed open space land, as it was previously disturbed in connection with the ~~two~~ four single-family homes that formerly occupied the central/eastern portion of the Development Site and a vacant single-family house currently located at the southern end of the Development Site as well as used for construction, staging including storage of construction equipment and materials. The Parking Structure's location on the Development Site, ~~—~~ immediately adjacent to Coldwater Canyon Avenue, would maximize the amount of open space that would remain on the ~~site~~ Development Site (~~about~~ approximately ~~60%~~ 33.55~~%~~ percent of the ~~site~~ Development Site would remain native vegetation undisturbed other than for replanting of trees and an additional 30.43 percent would include new landscaping and permeable area), and the land that remains open space would be within and would adjoin land identified as being within the Desirable Open Space Special Boundary. The open space that remains on the Development Site, as well as the much larger area of Desirable Open Space to the south and west, is unlikely to be incorporated as a regional or even community park because of lack of access and topographic constraints; however, this privately-owned land is also unlikely to be developed, thereby maintaining significant amounts of open space throughout the mountainous areas near Mulholland Drive. The Project's consistency with the Framework Element of the General Plan is assessed in **Table 3.6-1**.

TABLE 3.6-1: RELEVANT GOALS, OBJECTIVES AND POLICIES OF THE GENERAL PLAN FRAMEWORK ELEMENT

Goals, Objectives, Policies	Project Consistency
GOAL 6A: An integrated citywide/regional public and private open space system that serves and is accessible by the City's population and is unthreatened by encroachment from other land uses. • Objective 6.1: Protect the City's natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City's natural resources to contribute to the sustainability of the region. • Policy 6.1.6: Consider preservation of private land open space to the maximum extent feasible. In areas where open space values determine the character of the community, development should	**Partially Consistent.** The Community Plan identifies ~~a portion~~ 75% of the Development Site as within the Desirable Open Space Special Boundary as indicated on the Land Use Map (updated March 2008) see Figure 3.6-1. Land within this boundary is indicated as having "*open space characteristics which should be protected.*" ~~Over~~ Approximately half the Development Site has been previously developed and disturbed by structures, paved driveways and dirt roads, and therefore a significant portion of the Development Site may not be considered "open space … which should be protected" because it consists of graded/disturbed land including a network of paved driveways which are generally not considered to be characteristics of open space that should be protected. The Project would include new landscaping and permeable area, or be undisturbed site except for planting new native vegetation/mitigation trees on approximately 63.98 % of the Development Site. The Project would also include a debris basin that would have an earthen base and be surrounded by the planting of new native vegetation, which would be drought tolerant. ~~native vegetation and landscaping on approximately 60% of the 238,740-square foot Development~~

TABLE 3.6-1: RELEVANT GOALS, OBJECTIVES AND POLICIES OF THE GENERAL PLAN FRAMEWORK ELEMENT	
Goals, Objectives, Policies	**Project Consistency**
occur with special consideration of these characteristics.	~~Site; 39.9% (on the west side of the site) would remain undisturbed (other than replanting trees); approximately 20.5% of the area of the Development Site would be landscaped, to aid in shielding the Parking Structure from public view.~~ Most of the western and southern portions of the Development Site ~~to~~ would remain as at present -- in native vegetation (augmented with mitigation trees) and developed with a single-family house. The southern ~~¾~~ 75% of the Development Site is within and adjoining land within the Desirable Open Space Special Boundary. ~~it would remain undeveloped in its current state with natural vegetation and an abundance of trees.~~ The design of the Parking Structure takes into consideration the open space characteristics of the adjoining property to the west (by locating the structure as far east on the Development Site as possible and by providing ample landscaping), owned by the Mountains Recreation and Conservancy Authority, and therefore the Project would be consistent with the goals and objectives of the General Plan Framework. The Project would minimize its footprint by constructing the majority of the Parking Structure away from the hillside to the west. Approximately 32.81 ~~40~~ %~~percent~~ of the Development Site would be building area and hardscape. The Project is partially consistent with the General Plan Framework's objective of protecting the natural settings from the encroachment of urban development, as the structure is to be mostly built on the previously disturbed portion of the Development Site closest to Coldwater Canyon Avenue. The Project preserves the Development Site's (private land) open space to the maximum extent feasible.
Source: Sirius Environmental, ~~2012~~ 2015.	

Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan

The Project is substantially consistent with the purpose, intent and provisions of the General Plan and the Sherman Oaks-Studio City-Toluca Lake-Cahuenga Pass Community Plan. Harvard-Westlake has been operating the ~~campus~~ school for over 75 years, and is recognized as a Private Senior High School on the Community Plan's General Plan Land Use Map.

The Community Plan contains a number of goals and objectives that could be considered applicable to the Proposed Project. **Table 3.6-2** assesses the extent to which the Proposed Project supports these goals and objectives of the Community Plan.

TABLE 3.6-2: RELEVANT GOALS, OBJECTIVES AND POLICIES OF THE SHERMAN OAKS-STUDIO CITY-TOLUCA LAKE-CAHUENGA PASS COMMUNITY PLAN	
Goals, Objectives, Policies	**Project Consistency**
GOAL 5: A community with sufficient open space in balance with development to serve the recreational, environmental and health needs of the community and to protect environmental resources. • Objective 5-1: To preserve existing open space resources and where possible develop new open space. • Policy 5-1.1: Encourage the	**Consistent.** Approximately ~~two thirds~~ 75% of the Development Site is designated on the Community Plan's Land Use Map as being within the northern tip of the Desirable Open Space Special Boundary area. Footnote No. 7 on the Plan Map identifies Desirable Open Space as: "land which possess open space characteristics which should be protected and where additional development controls such as proposed in this Plan and Open Space Plan are needed to conserve such characteristics. These lands may be either publicly or privately owned. Conservation of such characteristics is needed to ensure the usefulness, safety and desirability of adjacent lands and

TABLE 3.6-2: RELEVANT GOALS, OBJECTIVES AND POLICIES OF THE SHERMAN OAKS-STUDIO CITY-TOLUCA LAKE-CAHUENGA PASS COMMUNITY PLAN

Goals, Objectives, Policies	Project Consistency
retention of passive and visual open space which provides a balance to the urban development of the Plan Area. • Program: The Plan Map designates areas for open space, thus protecting them from encroachment of more intense uses. • Policy 5-1.2: Accommodate active parklands, and other open space uses.	to maintain the overall health, safety, welfare and attractiveness of the community." ~~Over~~ <u>Approximately</u> half the Development Site has been previously developed and disturbed by structures, paved driveways and dirt roads, and therefore a significant portion of the Development Site may not be considered "land which possess open space characteristics which should be protected" because it consists of graded/disturbed land including a network of paved driveways which are generally not considered to be characteristics of open space that should be protected. Partially consistent with this footnote, the Project balances the proposed development with approximately ~~39.1~~ <u>63.98</u> percent of the Development Site area to <u>be new landscaping and permeable area, or be undisturbed site except for planting new native vegetation/mitigation trees</u>. ~~remain undeveloped in its current state with natural vegetation and abundant trees with an additional 20.5% of the site to be landscaped.~~ The Parking Structure would be oriented towards Coldwater Canyon and away from the hillside areas to the west and north. Thus, the Project would minimize its footprint by constructing the majority of its structure within an area unsuitable for the preservation of open space characteristics because the land is already graded/disturbed.
GOAL 6: Appropriate locations and adequate facilities for schools to serve the need of existing and future population. • Objective 6-1: To site schools in locations complementary to existing land uses, recreational opportunities and community character. • Policy 6-1.1: Encourage compatibility in school locations, site layout and architectural design with adjacent land uses and community character and as appropriate use schools to create a logical transition and buffer between different e.g., multiple-family residential vs. single-family residential. • Policy 6-1.3: Site schools in a manner which complements the existing single family and multiple family residential neighborhoods. • Policy 6-1.4: Proximity to noise sources should be avoided whenever possible. • Policy 6-1.5: Expansion of existing schools should be preferred over acquisition of new sites.	**Consistent.** Harvard-Westlake is an independent, co-educational college preparatory day school that operates two campuses in the Los Angeles area. The Harvard-Westlake Campus, located across from the Development Site on the east side of Coldwater Canyon Avenue, serves grades 10 through 12. The Harvard-Westlake Campus has been operating at this location since 1937, under a deemed-to-be-approved Conditional Use. For approximately 75 years, Harvard-Westlake's use of the main campus has been complementary to the existing land uses. Policy 6-1.5 seeks to encourage the expansion of existing schools as preferred over the acquisition of new sites. The Project would occupy land adjacent to the Harvard-Westlake Campus which is already owned by Harvard-Westlake, thereby fulfilling the Community Plan's goal of developing adequate facilities to serve the needs of the school by expanding at its currently adjoining location rather than acquiring a new site that likely would not be located in proximity to the Harvard-Westlake Campus. The Project would be consistent with Policies 6-1.1 and 6-1.3 as it would continue the operation of an existing school use identified on the Community Plan Land Use Map that has been located at the site for more than 75 years, with the new construction focused on the easternmost portion of the Development Site <u>substantially</u> within a previously developed area that is furthest from adjacent residences and land designated as within the Desirable Open Space Special Boundary in the Community Plan; the southern ~~two thirds~~ <u>75%</u> of the Development Site is ~~also~~ within the Desirable Open Space Special Boundary. The Project would not change or interfere with the surrounding residential community, thus the existing land use relationships in the area as well as the overall character of the neighborhood would be preserved. The Project's design and landscaping introduced on-site would enhance the Development Site's visual character and would be aesthetically compatible with the existing setting. Policy 6-1.4 seeks to avoid proximity of schools to noise sources. The Project would make operations of the school more efficient. It would not place a noise source closer to the school. The topography of the Development Site provides a natural buffer around three sides of the Parking Structure. The steep slope of the hills to the north, west and south will buffer noises and visual impacts generated from the automobiles within the Parking Structure, while the east side of the structure would face Coldwater Canyon <u>Avenue</u> and the Harvard-Westlake Campus (and single-family neighborhood beyond). The roof of the structure would be occupied by ~~an~~ ~~athletic~~ <u>practice</u> field that

TABLE 3.6-2: RELEVANT GOALS, OBJECTIVES AND POLICIES OF THE SHERMAN OAKS-STUDIO CITY-TOLUCA LAKE-CAHUENGA PASS COMMUNITY PLAN

Goals, Objectives, Policies	Project Consistency
	would not (once construction is complete) result in significant noise, aesthetic, light or glare impacts (see Sections 3.1 Aesthetics and 3.7 Noise). In addition, the Project would be compatible with other educational uses already located within the immediate vicinity. To the south of the existing Harvard-Westlake Campus, on the east side of Coldwater Canyon Avenue, is the Saint Michael and All Angels Episcopal Church located at 3646 Coldwater Canyon in the R1 Zone. Saint Michael's currently leases its school space to the Sunnyside Preschool, which City Planning Department has received Conditional Use approval for its use and operation (under Case ZA-2008-4053-CU.) Saint Michael's also offers a Sunday School. In addition, the TreePeople site is located further to the southwest at 12601 Mulholland Drive (where it meets Coldwater Canyon.) The TreePeople site, which is zoned OS-1XL with a General Plan Land Use designation of Open Space, includes a recreation/education center with related facilities operating under a Conditional Use Permit.
GOAL 13: A system of highways, freeways and streets that provides a circulation system which supports existing approved and planned land uses while maintaining a desired level of service at all intersections. • Policy 13-1.4: New development projects should be designed to minimize disturbance to existing flow with proper ingress and egress to parking. • Policy 13-2.1: No increase in density and intensity shall be effectuated by zone change, variance, conditional use, parcel map, or subdivision unless it is determined that the transportation system can accommodate the increased traffic generated by the project.	**Consistent.** The proposed development of the Parking Structure as an accessory use to the existing school fulfills the Community Plan's goal of a circulation system that supports the existing land uses. The intent of the Proposed Project is to accommodate the parking needs of the student population by achieving two important Project objectives: 1. Providing a safer and more secure parking location for cars that currently have to park off-campus along Coldwater Canyon Avenue and in the neighborhood to the north of the school. 2. Improving the vehicular and pedestrian circulation system on and off campus to better accommodate drop-off and pick up and vehicle flow on Coldwater Canyon Avenue. The Parking Structure will be designed with the proper ingress and egress for vehicles so that the traffic flow on Coldwater Canyon Avenue is not disturbed. In fact, the Proposed Project will improve the flow of traffic on Coldwater Canyon Avenue by constructing several public improvements at no cost to the City or to the community, including an additional southbound through lane and an improvement at the intersection of Coldwater Canyon Avenue and the Development Site's northerly driveway, opposite the relocated ~~Main~~ main ~~Entrance~~ entrance driveway of the ~~Upper School~~ Campus, by providing new traffic signal equipment. The new traffic signal equipment will include left-turn phasing for northbound and southbound Coldwater Canyon Avenue traffic. The Project would also provide a pedestrian bridge so that students, faculty, staff and visitors may safely cross Coldwater Canyon Avenue, thereby not delaying vehicles traveling on Coldwater Canyon Avenue. The Parking Structure will also reduce the amount of traffic that flows in and out of the Harvard-Westlake Campus, further minimizing disturbance to the existing flow of traffic. The Parking Structure is designed to accommodate the existing student population as well as the faculty, staff and visitors. The Parking Structure is designed to support the existing conditions of Harvard-Westlake's operation. The development of the Parking Structure would not result in an increase of the intensity of the use of the Harvard-Westlake Campus as the student enrollment and the number of faculty and staff would not be increased as a result of the Project which would accommodate the existing parking and practice fields needs of the Harvard-Westlake School. Additionally, the number of events held on Campus would not increase following construction of the Project.
GOAL 15: A sufficient system of well-designed and convenient on-street parking and off-street parking facilities	Consistent. The Community Plan chapter on Urban Design, Chapter V, establishes design policies to be observed in multiple residential and commercial projects within the entire Plan Area; there are no design policies that are

TABLE 3.6-2: RELEVANT GOALS, OBJECTIVES AND POLICIES OF THE SHERMAN OAKS-STUDIO CITY-TOLUCA LAKE-CAHUENGA PASS COMMUNITY PLAN	
Goals, Objectives, Policies	**Project Consistency**
throughout the plan area. • Objective 15-1: To provide parking in appropriate locations in accord with Citywide standards and community needs. • Policy 15-1.3: New parking lots and new parking garages shall be developed in accordance with design standards. • Program: The Plan contains an Urban Design Chapter, which outlines guidelines for parking facilities.	specifically applicable to institutional uses such as schools, however. In addition, the chapter also promotes architectural design standards that are equally instructive for the Development Site. Although there are no design policies that are directly applicable, the Project is consistent with many of the indicated policies. The Parking Structure would be oriented toward Coldwater Canyon Avenue and would avoid pedestrian/vehicular conflicts through the use of the pedestrian bridge. The design of the Parking Structure incorporates the use of articulations, recesses, surface perforations and changes in building materials to break up long, flat building facades. The Proposed Project would provide setbacks and landscaping and would shield lighting provided on-site so that it is directed away from adjacent residential uses. The Project would utilize decorative walls and landscaping to buffer residential uses from the Parking Structure.
Source: Sirius Environmental, ~~2012~~ 2015.	

Consistent with the intent of the Desirable Open Space Special Boundary, the Project proposes to maintain a balance between the proposed development on the ~~Project~~ Development Site (west of Coldwater Canyon Avenue) and open space areas.

While the Project includes a number of retaining walls, the Project use is not residential and, therefore, the retaining wall ordinance is not applicable.

The Department of City Planning verified the Slope Analysis Map and Residential Floor Area (RFA) for the Project.[2] The City-receiver plans provide for the following RFA: 1) 18,788.15 square feet (R1-1 zone); and 2) 60,472.96 square feet (RE40-1-21 zone) for a total RFA of 79,261.11 square feet. The Department of City Planning also verified that the Slope Analysis Map has been prepared by a registered civil engineer and the RFA calculated in accordance with applicable requirements.

Mobility Plan 2035

Table 3.6-3 assesses how the Project would address the recently-approved (August 2015) Mobility Plan 2035.

TABLE 3.6-3: RELEVANT GOALS, OBJECTIVES AND POLICIES OF MOBILITY PLAN 2035	
Goal/Policy/Objective	**Project Consistency**
1. Scenic Highways … criteria to be considered (3) Visual impact of scenic features or area. (4) Type/angle/duration of view + location of viewer. (5) Vegetation (type/extent), and/or (6) Scenic characteristics. **Inventory of Designated Scenic Highways**	**Consistent.** The Project is located along a designated Scenic Highway. The Project would replace a substantially degraded area with a well-landscaped parking structure. The Development Site, currently disturbed or developed as to over half of the acreage, would be improved to 63.98% of lush, native, drought-tolerant landscaping. The Project would also block views of native vegetation on adjacent hillsides along a short portion of the lower reaches of Coldwater Canyon just as the road starts to ascend into the mountains. Viewers would be confined to drivers along the short stretch of Coldwater Canyon as

[2] Pursuant to LAMC Section 12.21 C.10.(b)(1), the Department of City Planning reviewed and stamped a Slope Analysis Map on November 4, 2015 to determine the residential floor area. The Slope Analysis Map was reviewed and stamped by Ralph Avila at the City Planning Department Metro Development Services Center counter at 201 N. Figueroa Street, 4th Floor, Los Angeles, CA 90012. The Slope Analysis Map is on file and available for review at City Hall, Room 750, Major Projects.

TABLE 3.6-3: RELEVANT GOALS, OBJECTIVES AND POLICIES OF MOBILITY PLAN 2035	
Goal/Policy/Objective	**Project Consistency**
Coldwater Canyon Drive, Ventura Boulevard to City boundary with Beverly Hills. Winding cross mountain road providing access to the Mulholland Scenic Parkway.	well as homes on the east side of the canyon immediately opposite the Project Site. The Project would have high design values, would be heavily landscaped with drought tolerant native vegetation and would add drought tolerant native vegetation to areas surrounding the Parking Structure. The Project is in the lowland portion of Coldwater Canyon across from the Harvard-Westlake Campus. The Project would be compatible with the existing school development and would be somewhat separated from adjacent single-family development by topography.
Scenic Highway Guidelines 5. Utilities a. To the maximum extent feasible, all new or relocated electric, communication, and other public utility distribution facilities within five hundred feet of the center line of a Scenic Highway shall be placed underground.	**Consistent.** The Project would result in power lines adjacent to the Development Site being placed under ground.
Source: Sirius Environmental, 2015.	

CUMULATIVE IMPACTS

Incremental loss of land within the Desirable Open Space Boundary would be a cumulative impact. The Proposed Project would impact a total of 4.43 acres, of which 2.86 acres are already disturbed (see Figure 3.3-2 in the Biological Resources Section). The majority of the disturbed area that would be impacted (2.65 acres of the 2.86 acres) is within the Desirable Open Space Boundary (of the 1.43 acres of impacted oak-walnut woodland, 1.06 is within desirable open space boundary and of the 0.14 acres of impacted ruderal area, all of it would be within desirable open space boundary). ~~However,~~ Because most of the existing land that would be impacted has already been graded/disturbed, the Project impact would not rise to a cumulatively considerable contribution to a cumulative impact.

MITIGATION MEASURES

No mitigation measures are required.

SIGNIFICANCE AFTER MITIGATION

Impacts are considered less than significant and no mitigation is necessary.

3.7 NOISE

This section provides an overview of noise and vibration levels and evaluates the construction and operational impacts associated with the Proposed Project. Topics addressed include short-term construction and long-term operational noise and groundborne vibration. This section was prepared by Terry A. Hayes Associates Inc. Noise modeling results (updated in 2015) are included in **Appendix F.1 Noise Modeling**. In addition the following technical study is summarized in the analysis:

- Harvard-Westlake Upper School Parking Improvement Plan, Sound Propagation Analysis, Arup, August 20, 2013 (**Appendix F.2**).

The following background information provides noise and vibration characteristics and effects.

EXISTING CONDITIONS

Noise Characteristics and Effects

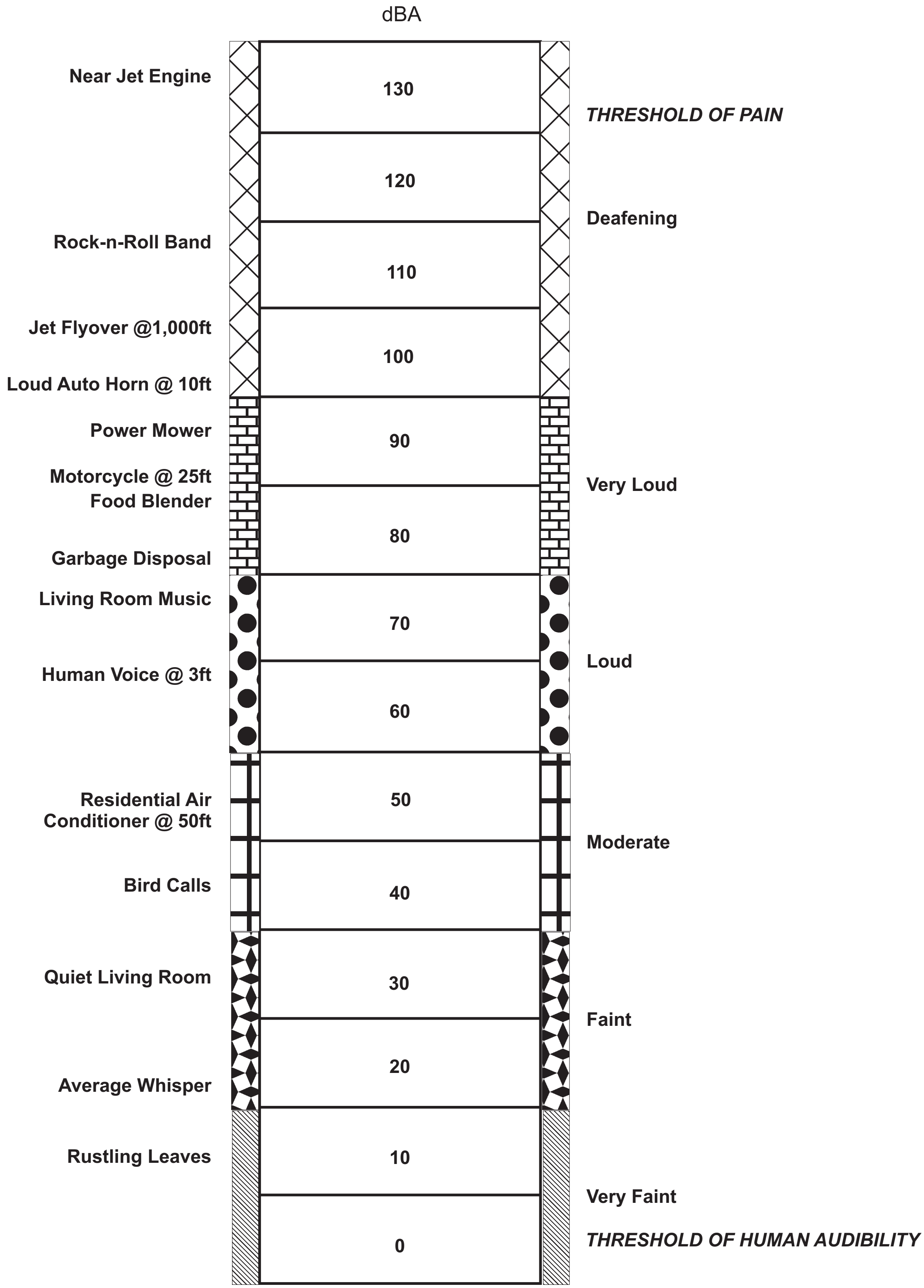
Characteristics of Sound. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement for sound is the decibel (dB). The human ear is not equally sensitive to sound at all frequencies. The "A-weighted scale," abbreviated dBA, reflects the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. **Figure 3.7-1** provides examples of A-weighted noise levels from common sounds.

Noise Definitions. This noise analysis discusses sound levels in terms of Community Noise Equivalent Level (CNEL) and Equivalent Noise Level (L_{eq}).

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

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

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



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

Figure 3.7-1

A-Weighted Decibel Scale

Audible Noise Changes. Studies have shown that the smallest perceptible change in sound level for a person with normal hearing sensitivity is approximately 3 dBA. A change of at least 5 dBA would be noticeable and would likely evoke a community reaction. A 10-dBA increase is subjectively heard as a doubling in loudness and would cause a community response.

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

Generally, noise is most audible when traveling by direct line-of-sight. Line-of-sight is an unobstructed visual path between the noise source and the noise receptor. Barriers, such as walls, berms, or buildings that break the line-of-sight between the source and the receiver greatly reduce noise levels from the source since sound can only reach the receiver by bending over the top of the barrier. Sound barriers can reduce sound levels by up to 20 dBA. However, if a barrier is not high or long enough to break the line-of-sight from the source to the receiver, its effectiveness is greatly reduced.

Vibration Characteristics and Effects

Characteristics of Vibration. Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment.

Vibration Definitions. There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings and is usually measured in inches per second. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (Vdb) is commonly used to measure RMS. The decibel notation acts to compress the range of numbers required to describe vibration.

Effects of Vibration. High levels of vibration may cause physical personal injury or damage to buildings. However, groundborne vibration levels rarely affect human health. Instead, most people consider groundborne vibration to be an annoyance that can affect concentration or disturb sleep. In addition, high levels of groundborne vibration can damage fragile buildings or interfere with equipment that is highly sensitive to groundborne vibration (e.g., electron microscopes). To counter the effects of groundborne vibration, the Federal Transit Administration (FTA) has published guidance relative to vibration impacts.

Perceptible Vibration Changes. In contrast to noise, groundborne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually 50 RMS or lower, well below the threshold of perception for humans, which is around 65 RMS. Most perceptible indoor vibration is caused by sources within buildings, such as operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If the roadway is smooth, the vibration from traffic is rarely perceptible.

Noise

The existing noise environment near the Development Site is characterized by vehicular traffic, activity associated with the Harvard-Westlake ~~School~~ Campus, St. Michael's ~~and All Angeles~~ Church, ~~and~~ Sunnyside Preschool, and residential uses in the vicinity. Sound measurements were taken at a representative sample of residential land uses using a SoundPro DL Sound Level Meter on October 16, 2012 to determine existing noise levels in the Project vicinity. According to the updated Supplemental Traffic Analysis (see **Appendix G.2**), existing (2015) peak hour traffic counts have declined incrementally at all five study intersections, including the Coldwater Canyon Avenue/Ventura Boulevard intersection, in comparing the 2011 to 2015 traffic count data. This decrease in traffic (of approximately 8% to 15%) would have a negligible effect on noise since, according to the California Department of Transportation Technical Noise Supplement, a doubling or halving of traffic is typically required to generate a 3 dBA (or audible) change in noise levels. Therefore, the 2012 noise measurements remain appropriate, and conservative, for this analysis. ~~Daytime measurements were used to establish existing ambient noise conditions and to provide a baseline for evaluating construction impacts and after school measurements were used to assess operational impacts.~~

Noise monitoring locations are shown in **Figure 3.7-2**. As shown in **Table 3.7-1**, daytime existing ambient sound levels ranged between 50.2 and 69.0 dBA L_{eq} and after school sound levels ranged between 44.9 and 68.2 dBA L_{eq}. In addition, noise levels were monitored during ~~existing playfield~~ Ted Slavin Field activity to identify the noise levels at the proposed ~~athletic~~ practice field. This is an overly conservative monitoring comparison because unlike Ted Slavin Field, the practice field will have no bleachers, no public address system and will not be used for games. ~~Activity~~ Activities at Ted Slavin Field included football, cross-country, and soccer and the noise level was 52.7 dBA L_{eq} at 288 feet, which was the distance from the center of ~~the existing field~~ Ted Slavin Field to the noise monitor. Based on distance attenuation, this was converted into a reference noise level of 70.6 dBA at 50 feet.

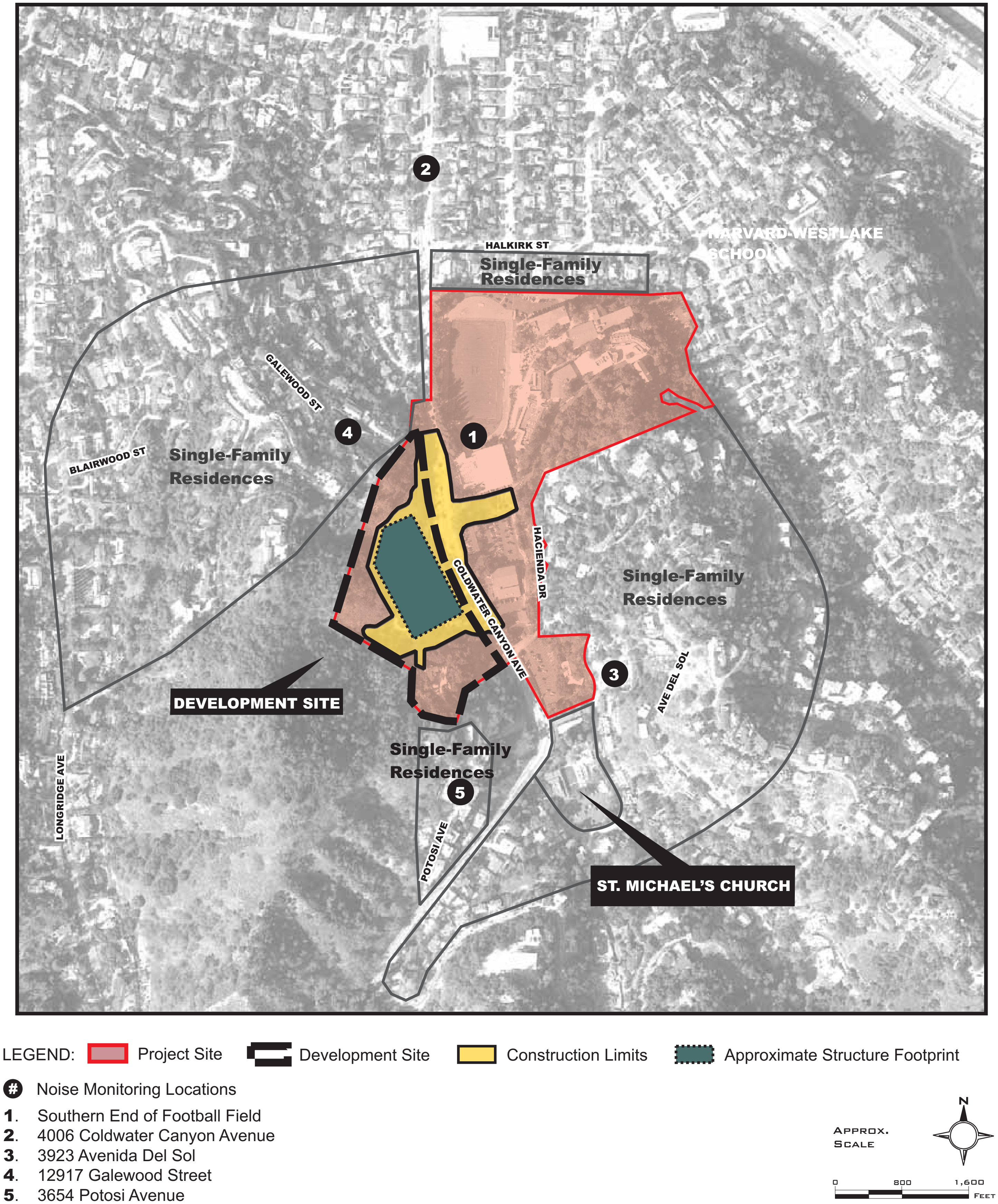
TABLE 3.7-1: EXISTING NOISE LEVELS

Key to Figure 3.7-2	Noise Monitoring Location	Daytime Sound Levels (dBA, L_{eq})	After School Sound Levels (dBA, L_{eq})
1	Southern End of ~~Football~~ Ted Slavin Field	50.7	55.4
2	4006 Coldwater Canyon Avenue	69.0	68.2
3	3923 Avenue Del Sol	55.4	58.6
4	12917 Galewood Street	47.5	44.9
5	3654 Potosi Avenue ~~Drive~~	50.2	50.7

SOURCE: TAHA, 2012.

Vibration

There are no stationary sources of vibration located near the Development Site. Heavy-duty trucks can generate groundborne vibrations that vary depending on vehicle type and weight, and pavement conditions. Vibration from adjacent roadways are not typically perceptible at the Development Site.



SOURCE: TAHA and Google Earth, 2015.

Harvard-Westlake School Parking Structure

Figure 3.7-2

Noise Monitoring and Sensitive Receptor Locations

Sensitive Receptors

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. As shown in **Figure 3.7-2**, sensitive receptors near the Development Site include residences~~,~~ and ~~Sunnyside Preschool. At the same address as the Sunnyside Preschool is~~ St. Michael's Church (which includes the Sunnyside Preschool). ~~The analysis in this report focuses on the impact of the Project on the Preschool rather than the church because church activities are mainly on weekday evenings and Sunday and would therefore not be impacted by construction. (There would be no construction on weekends and only limited athletic activity occurs on Sundays).~~ These sensitive receptors represent the nearest sensitive receptors with the potential to be significantly impacted by the Proposed Project. Additional sensitive receptors are located in the surrounding community within one-quarter mile of the Development Site and may be impacted by the Proposed Project but to a lesser extent.

REGULATORY FRAMEWORK

Noise

Noise Element of the General Plan. The City has developed a Noise Element of the General Plan to guide in the development of noise regulations.[1] It addresses noise mitigation regulations, strategies and programs and delineates Federal, State and City jurisdiction relative to rail, automotive, aircraft and nuisance noise. Programs included in the Noise Element that are relevant to the Proposed Project include:

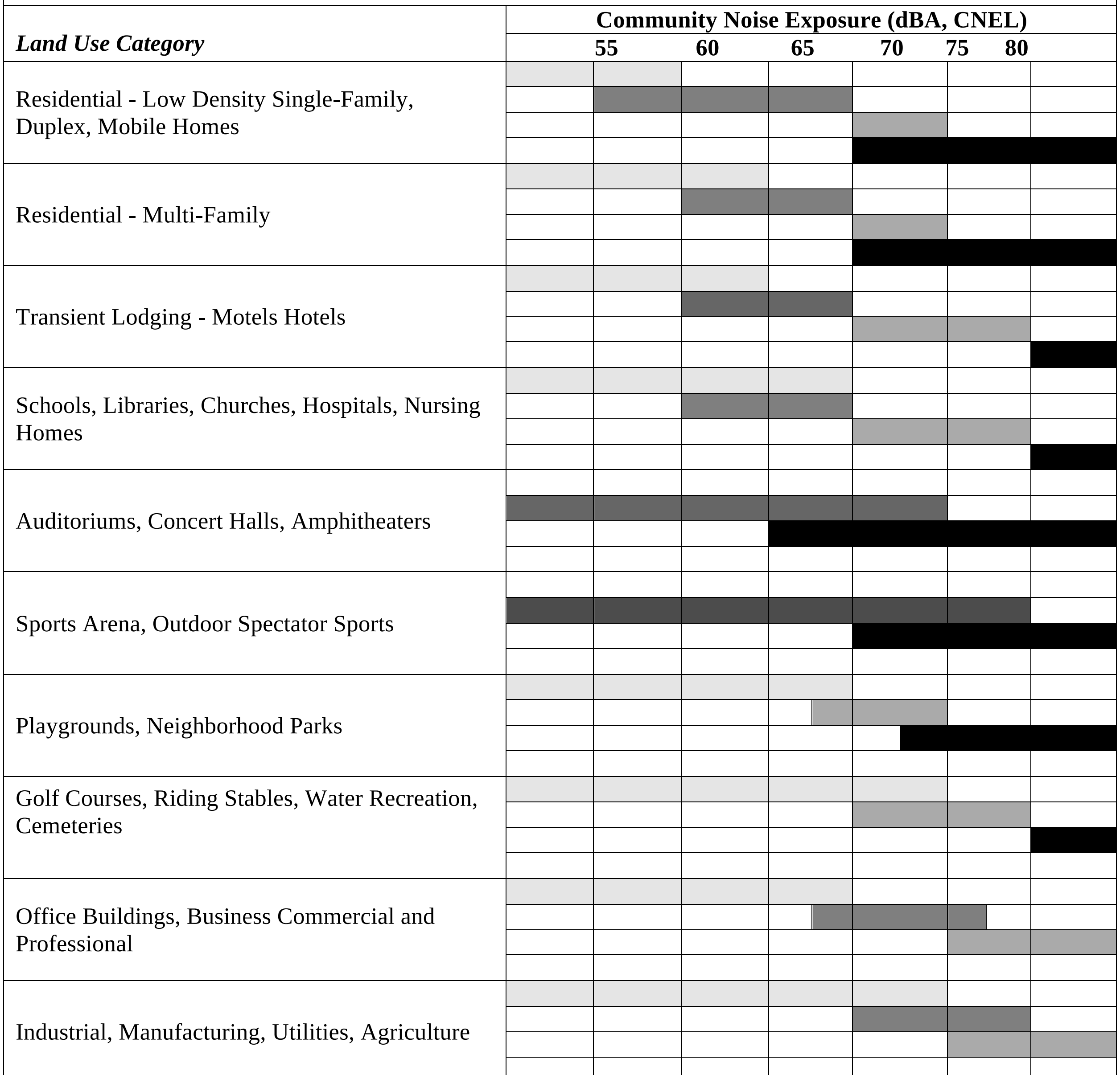
- For a proposed development project that is deemed to have a potentially significant noise impact on noise sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act and City procedures.

- Use, as appropriate, the "Guidelines for Noise Compatible Land Use" (**Table 3.7-2**), or other measures that are acceptable to the City, to guide land use and zoning reclassification, subdivision, conditional use and use variance determinations and environmental assessment considerations, especially relative to sensitive uses, as defined by this chapter, within a CNEL of 65 dB airport noise exposure areas and within a line of sight of freeways, major highways, railroads or truck haul routes. (It is estimated that the existing CNEL, which is a 24-hour average, in the project area is approximately 48.3 dBA).

City of Los Angeles Municipal Code – Noise Regulations. The City of Los Angeles has established policies and regulations concerning the generation and control of noise that could adversely affect its citizens and noise sensitive land uses. Los Angeles Municipal Code (LAMC) Section 41.40 (Noise Due to Construction, Excavation Work – When Prohibited) indicates that no construction or repair work shall be performed between the hours of 9:00 p.m. and 7:00 a.m., since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling, hotel, apartment or other place of residence. No person, other than an individual home owner engaged in the repair or construction of his/her single-family dwelling, shall perform any construction or repair work of any kind or perform such work within 500 feet of land so occupied before 8:00 a.m. or after 6:00 p.m. on any Saturday or on a federal holiday, nor at any time on any Sunday. Under certain conditions, the City may grant a waiver to allow limited construction activities to occur outside of the limits described above.

[1] City of Los Angeles, *Noise Element of the Los Angeles City General Plan*, February 3, 1999.

TABLE 3.7-2: GUIDELINES FOR NOISE COMPATIBLE LAND USE



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

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

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

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

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

LAMC Section 112.05 (Maximum Noise Level of Powered Equipment or Powered Hand Tools) also specifies the maximum noise level of powered equipment or powered hand tools. Any powered equipment or hand tool that produces a maximum noise level exceeding 75 dBA at a distance of 50 feet is prohibited. However, this noise limitation does not apply where compliance is technically infeasible. Technically infeasible means the above noise limitation cannot be met despite the use of mufflers, shields, sound barriers and/or any other noise reduction device or techniques during the operation of equipment.

City of Los Angeles Municipal Code – Zoning Regulations. The City's planning and zoning code (LAMC Section 11 *et seq*.) contains a variety of provisions that directly or indirectly mitigate noise impacts on or impacts that are associated with, different types of land uses. Permit processing is guided by the General Plan, especially the community plans which together are the City's Land Use Element. The plans designate appropriate land use (zoning) classifications. The noise ordinance guides land use considerations by setting maximum ambient noise levels for specific zones.

Conditional use permits (LAMC Section 12.24) allow the City to assess potential use impacts and impose conditions to mitigate noise impacts. Conditional use permits are required in certain zones for various land uses including, but not limited to, schools, churches, alcohol sales, parks, mixed-use development, and automobile repair facilities. In most cases the uses are allowed-by-right in less restrictive zones. Some are prohibited entirely in residential zones. The permitting procedures include site investigations, notice to neighbors and hearings to assist decision makers in determining if the use should be permitted and, if permitted, allow the imposition of appropriate conditions of approval. Typical conditions include specific site design, setbacks, use limitations on all or parts of the site, walls and hours of operation so as to minimize noise and other impacts.

The authority to revoke, discontinue a use or to impose nuisance abatement conditions on established uses has become a major tool for reducing nuisance noise. Use permits may be revoked by the City for nuisance (including disturbance of the peace) or noncompliance with conditions of a conditional use permit. In addition, the City may impose operational conditions on existing commercial or industrial uses that are deemed a nuisance, including for excessive noise or disturbance of the peace (LAMC Section 12.21-A.15). These two procedures have been increasingly utilized in recent years to encourage owners to operate activities on their properties in a manner that is compatible with adjacent uses, particularly residential uses.

Vibration

There are no adopted City or State standards for vibration. **Table 3.7-3** shows Federal guidelines for vibration damage criteria. These criteria are based on the type of building construction. Single–family residential buildings typically are non-engineered timber and masonry buildings and can be exposed to 0.2 inches per second PPV without experiencing damage. Vibration is a localized impact within a few feet of construction activity. Neither the St. Michael's Church nor the Sunnyside Preschool are sufficiently close to the construction activity to experience any vibrations from the Project.

TABLE 3.7-3: VIBRATION DAMAGE CRITERIA	
Building Category	**PPV (Inches Per Second)**
I. Reinforced-concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.	

THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the State CEQA Guidelines, ~~the~~ a proposed project would have a significant impact related to noise if it would:

- Expose persons or generate noise in levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Expose people to or generate excessive groundborne vibration or groundborne noise levels;
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project; and/or
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

The City of Los Angeles has established significance thresholds in its L.A. CEQA Thresholds Guide. The following specific significance thresholds are relevant to the Proposed Project:

Construction Noise. A significant impact related to construction activity would occur if:

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

Operational Noise. A significant impact related to operational activity would occur if:

- Ambient noise level measured at the property line of the affected uses increase by 3 decibels CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise increase, (see **Table 3.7-2**).

Vibration. There are no adopted State or City of Los Angeles vibration standards. Based on Federal guidelines, a significant impact related to operational activity of the Project would occur if:

- Construction-related vibration levels would ~~The Project would generate vibration than~~ exceed 0.2 inches per second PPV at residential land uses.

IMPACTS

Construction

Noise

Equipment Noise. Construction of the Proposed Project would result in temporary increases in ambient noise levels in the Project area on an intermittent basis. The increase in noise would occur during the approximate ~~25~~ 30-month construction schedule. Noise levels would fluctuate depending on the construction phase, equipment type and duration of use, distance between the noise source and receptor, and presence or absence of noise attenuation barriers. Construction activities typically require the use of numerous pieces of noise-generating equipment. Typical noise levels from various types of equipment that may be used during construction are listed in **Table 3.7-4**. The table shows noise levels at distances of 50 and 100 feet from the construction noise source. The Proposed Project would include soil nailing to ~~stabilize the slope~~ construct the retaining walls at the Development Site. The soil nailing technique involves the insertion of relatively slender reinforcing elements into the slope and it generates a noise level similar to an auger drill.

TABLE 3.7-4: MAXIMUM NOISE LEVELS OF COMMON CONSTRUCTION EQUIPMENT		
	Noise Level (dBA)	
Noise Source	**50 Feet**	**100 Feet**
Front Loader	80	74
Trucks	89	83
Cranes (derrick)	88	82
Back Hoe	84	78
Tractor	88	82
Scraper/Grader	87	81
Paver	87	81
Auger Drilling	77	71
Air Compressor	80	74
Excavator	85	79
Dozer	85	79
Concrete Pump	82	76
Compactor	80	74
Roller	85	79
SOURCE: City of Los Angeles, L. A. *CEQA Thresholds Guide*, 2006 and Table 9.9, Chapter 12 of the FTA Transit Noise and Vibration Guidance Handbook, May 2006.		

The noise levels shown in **Table 3.7-5** take into account the likelihood that more than one piece of construction equipment would be in operation at the same time and lists the typical overall noise levels that would be expected for each phase of construction. ~~The highest noise levels are expected to occur during the grading/excavation and finishing phases of construction.~~ A typical piece of noisy equipment is assumed to be active for 40 percent of the eight-hour workday~~,~~ In the absence of a specific construction plan, this assumption is consistent with the USEPA studies of typical construction operations and associated construction noise~~, generating a noise level of 89 dBA L_{eq} at a reference distance of 50 feet~~.

The phases of construction include grading (234 days), soil nailing (234 days), shotcrete (234 days), foundation/structure (338 days), tower/ramp construction (130 days), sitework (156 days), streetwork (26 days), and bridge construction (104 days). During construction of the Project, different activities (phases) would overlap. The highest noise levels are expected to occur during overlap of grading, soil nailing, and shotcrete activities generating a noise of 95.8 dBA at 50 feet as a result of overlapping activities.

Grading would extend for about 9 months, and for the first 2 months of construction would be the primary activity. Soil nailing and shotcrete activities (associated with construction of retaining walls) would begin in the 3rd and 4th months, respectively, and each would continue for a duration of approximately 9 months overlapping for 6 to 7 months with grading activities. Following site grading, soil nails and shotcrete, there would be approximately 13 months of foundations and structure work (that would occur within the Parking Structure footprint only) that would overlap with first about 5 months of work on the tower/ramp and then by about 4 months of work on the bridge. Site work and street work would not overlap with other activities.

TABLE 3.7-5: OUTDOOR CONSTRUCTION NOISE LEVELS	
Construction Phase	**Noise Level at 50 Feet (dBA)**
~~Ground Clearing~~	~~84~~
~~Grading/Excavation~~	~~89~~
~~Foundations~~	~~78~~
~~Structural~~	~~85~~
~~Finishing~~	~~89~~
Site Preparation	86
Grading and Retaining Walls	94
Soil Nailing	88
Shotcrete	87
Foundation/Structure and Tower/Ramp	92
Street Work	83
Bridge	88
Site Work	92
SOURCE: City of Los Angeles, L.A. *CEQA Thresholds Guide*, 2006 and Table 9.9, Chapter 12 of the FTA Transit Noise and Vibration Guidance Handbook, May 2006.	

The noise level during the construction period at each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level. These calculations and the estimated noise levels are presented in **Appendix F.1**. **Table 3.7-6** identifies the location (by street) and number of significantly impacted sensitive receptors during the most impactful phase of construction (grading overlapping with soil nailing and shotcrete). **Figure 3.7-3** shows the location of these significantly impacted receptors. (Not included in this analysis or in **Table 3.7-6** or **Figure 3.7-3** are residences owned by the Harvard-Westlake School and the Harvard-Westlake School itself.) **Figure 3.7-4** shows distance contours from the construction limit lines. Houses closest to the construction would experience the highest increase in noise levels. It is difficult to accurately predict the noise levels at each residence due to the complex terrain associated with the Santa Monica Mountains as well as intervening structures (trees and plant materials have limited effects on noise). It was generally assumed that terrain features that block the line-of-sight from the receptor to the construction area would decrease noise levels by 10 to 15 dBA.

A sound transmission analysis (see **Appendix F.2**) was conducted to study potential echoing affects associated with topography in the area of the Development Site. Eight loudspeakers in a hemispherical configuration (the test noise source) were connected to an electronic noise generator capable of producing a maximum 104-dBA sound level, 10 feet from the face of the loudspeakers. The loudspeakers were set up in a hemispherical arrangement to characterize potential reflections from topography and structures. The hemispherical configuration of the sound source provided sound transmission in all directions that would allow reflected sound waves, if present, to be detected at the receiver locations.

TABLE 3.7-6: UNMITIGATED CONSTRUCTION NOISE – SIGNIFICANTLY IMPACTED RESIDENCES~~,~~ ST. MICHAEL'S CHURCH AND SUNNYSIDE PRESCHOOL

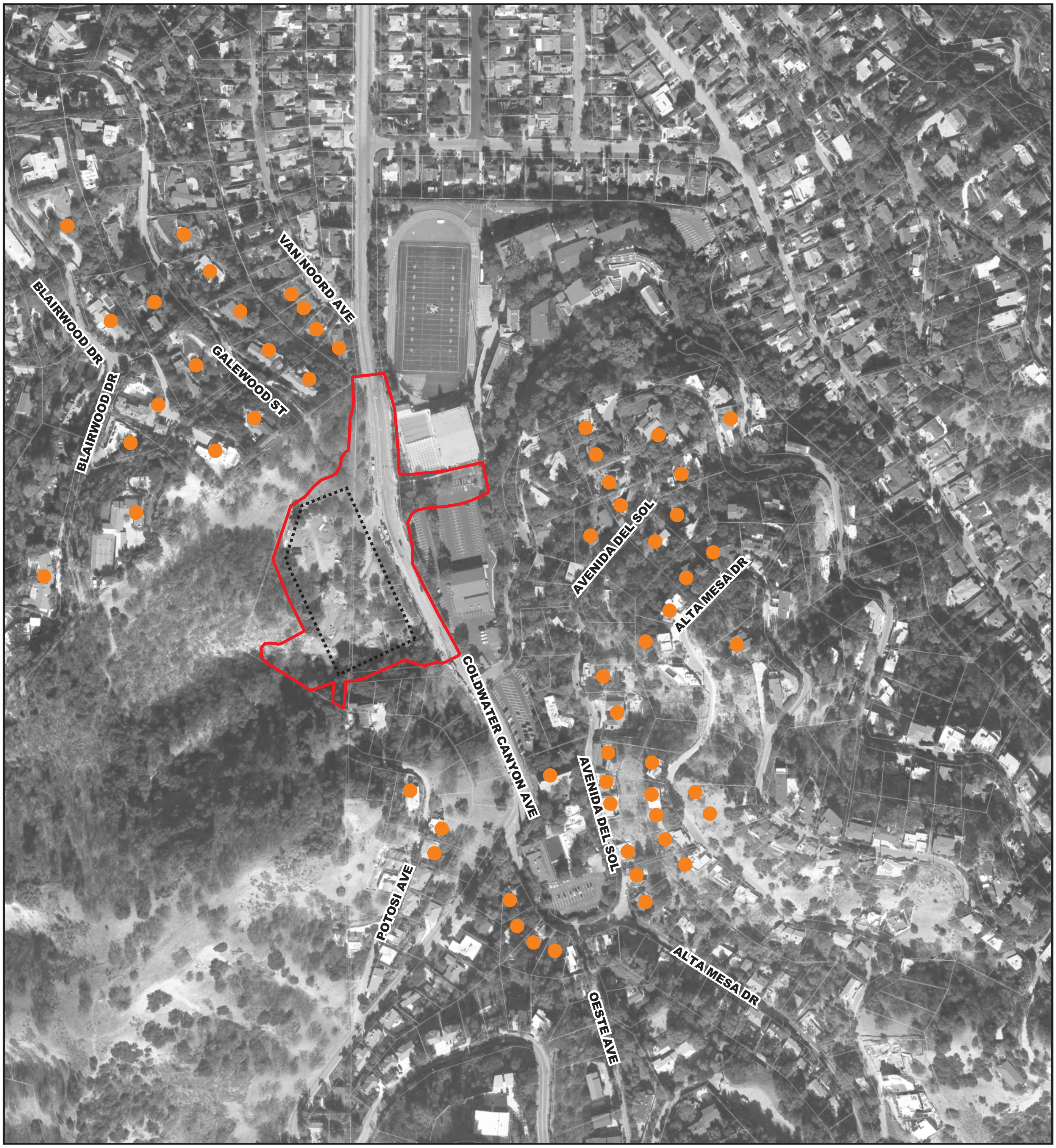
Street/ Receptor	Number of Significantly Impacted Receptors	Distance from Construction Limit Line to Property Line (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Existing Ambient (dBA L_{eq}) /c/	Temporary New Ambient (dBA L_{eq}) /d/	Range of Noise Increases
Galewood Street	~~6~~ 8	~~43 – 354~~ 92-952	~~54.7 - 84.6~~ 49.0-83.2	44.9 – 60.7	~~55.2 - 84.7~~ 50.4-83.2	~~10.3 - 28.3~~ 5.5-31.8
Van Noord Avenue	~~2~~ 4	~~54 – 125~~ 77-290	~~76.1 - 88.2~~ 67.7-91.1	60.7 - 68.2	~~76.7 – 88.2~~ 68.5-91.1	~~8.5 – 20~~ 7.8-22.9
Blairwood Drive	~~4~~ 7	~~163 – 531~~ 197-840	~~53.3 - 66.2~~ 48.4-70.9	44.9	~~53.9 - 66.2~~ 50.0-70.9	~~9.0 – 21.3~~ 5.1-26.0
Potosi Avenue ~~Drive~~	~~2~~ 3	~~189 – 320~~ 279-448	~~54.8 - 74.6~~ 55.0-77.1	50.2	~~56.1 - 74.6~~ 56.2-77.1	~~5.9 - 24.4~~ 6.0-26.9
Avenida Del Sol	~~22~~ 21	~~251 – 810~~ 319-858	~~58.8 - 71.5~~ 64.9-75.5	55.4	~~60.4 - 71.6~~ 65.4-75.7	~~5.0 – 16.2~~ 10.0-20.3
Alta Mesa Drive	~~12~~ 13	~~484 – 760~~ 532-865	~~59.1 – 64.4~~ 64.9-70.1	55.4	~~60.6 - 64.9~~ 65.3-70.3	~~5.2 – 9.5~~ 9.9-14.9
St. Michael 's Church and Sunnyside Preschool	1	~~329~~ 432	~~68.5~~ 72.4	55.4	~~68.7~~ 72.5	~~13.3~~ 17.1

/a/ Distance of noise source from receptor. The distance is from the construction limit line to the property line.
/b/ Construction noise source's sound level at receptor location with distance and building adjustment as applicable.
/c/ Pre-construction activity ambient sound level at receptor locations.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: TAHA, ~~2013~~ 2015; see **Appendix F.1** a) Construction Noise Level Calculations

The study included 14 receiver locations around the Development Site, at representative locations east and west of Coldwater Canyon Avenue. The sound transmission tests and analysis show there are no significant sound reflections (defined as being within 10 dB of the direct sound), from local topography or neighboring buildings at the surrounding receptor locations.

Construction noise levels would exceed the 5-dBA incremental increase significance threshold at approximately ~~48~~ 56 residences, including along Avenida del Sol, Alta Mesa Boulevard, at the ends of Van Noord Avenue, Blairwood Drive, Potosi ~~Drive~~ Avenue, and Galewood Street nearest to the Development Site. There would also be a significant increase in noise during construction at St. Michael's Church and Sunnyside Preschool. Therefore, without mitigation, the Proposed Project would result in a significant impact related to construction noise.

The analysis presented above identifies maximum noise levels associated with all construction activity including all activities at the construction limits (such as within the ~~school~~ Harvard-Westlake Campus driveway, debris basin, retaining walls, and construction of the north retaining wall north along Coldwater Canyon Avenue). Construction activity within the Harvard-Westlake Campus main entrance driveway would impact residences along Avenida del Sol and Alta Mesa Drive ~~Boulevard~~.



LEGEND:
Construction Limits
Parking Structure and Retaining Wall Footprint
Construction Impact Measured from the Construction Limits

Approx.
Scale
0 200 400 Feet

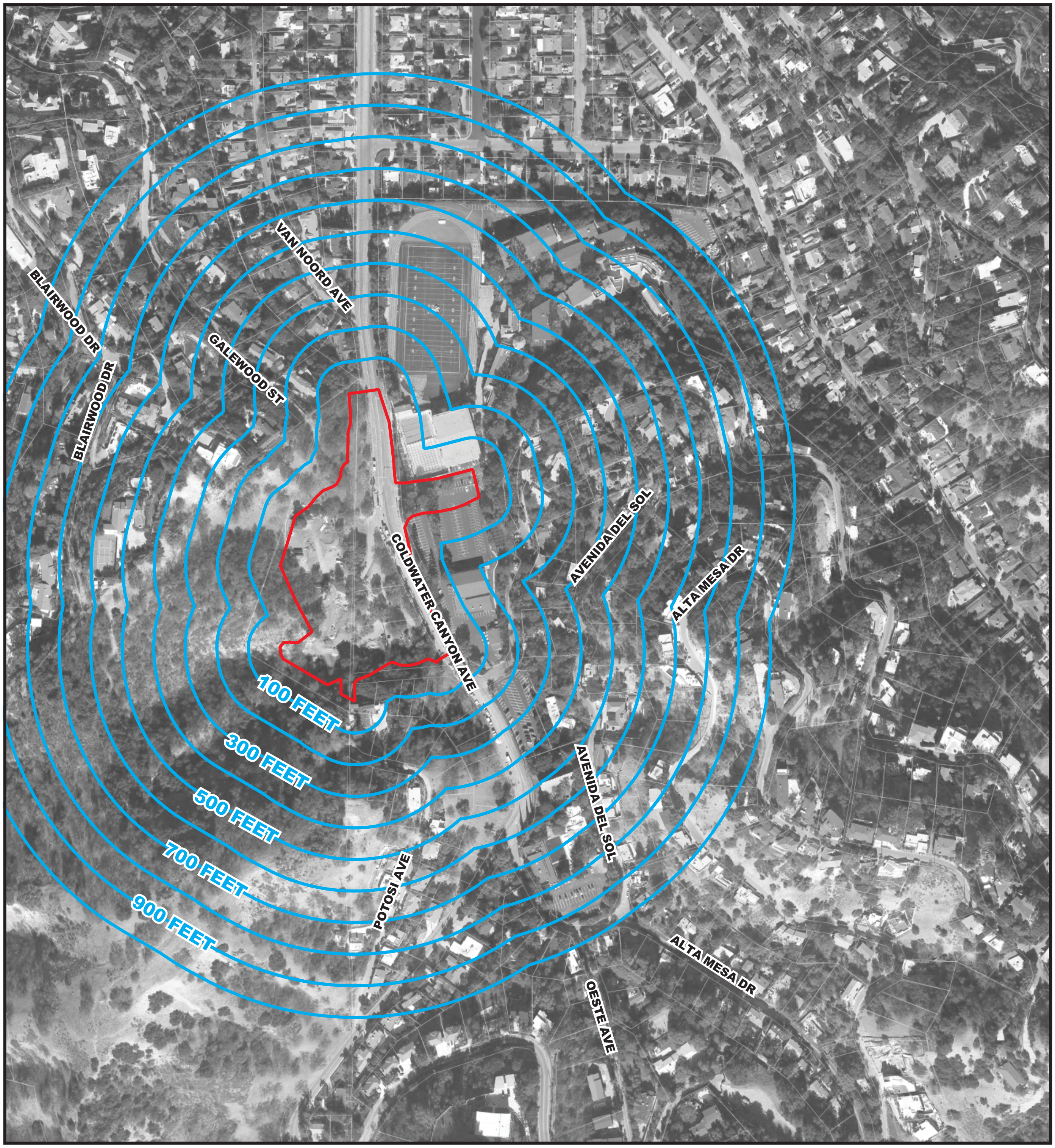
N

Harvard-Westlake School Parking Structure

SOURCE: Google Earth and TAHA, 2015.

Figure 3.7-3

Unmitigated Construction Noise Impacts

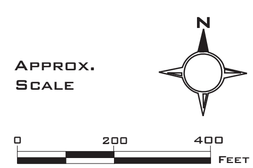


Note: These contours strictly represent distances from the construction limit. The impact distances vary depending on existing ambient noise levels and topographical features.

LEGEND:

Construction Limits

100-foot Intervals from Construction Boundary



SOURCE: Google Earth and TAHA, 2015.

Harvard-Westlake School Parking Structure

Figure 3.7-4

Construction Distance Contours

Construction of the retaining wall at the northern tip of the Development Site would impact residences at the eastern end of Van Noord Avenue where it intersects Coldwater Canyon Avenue. Construction of the Parking Structure would include grading and building activities ~~for a much longer duration~~ (~~24~~ 30 months) and would significantly impact residences on Potosi ~~Drive~~ Avenue, Blairwood Avenue, and Galewood Avenue and St. Michael's Church/Sunnyside Preschool. ~~Impacted Residences, and the Sunnyside Preschool,~~ Sensitive receptors that would be significantly impacted by construction activities are shown in **Figure 3.7-3**. While noise levels would not exceed thresholds at other locations, some receptors (people in nearby homes in addition to those identified as significantly impacted) would be able to hear construction noise and may be impacted to a less than significant level.

Assuming wood frame construction, in general, it is anticipated that interior speech would not be interfered with at adjacent residences; however construction activity could disrupt daytime sleepers. This potential disruption would be short-term and intermittent and could likely be avoided in some rooms of the house away from the ~~construction site~~ Development Site if rooms are sufficiently far away and/or insulated.

Truck Noise. During peak construction activity, it is anticipated that ~~ten~~ haul ~~truck trips per hour (i.e., five inbound trips and five outbound trips)~~ trucks would travel Coldwater Canyon Avenue between the Development Site and the Ventura Freeway. Harvard-Westlake School would limit hauling to incidental deliveries during the 8:00 a.m. to 9:00 a.m. hour, 12 truck trips (6 inbound trips and 6 outbound trips) during the 9:00 a.m. - 10:00 a.m. hour and the 3:00 p.m. to 4:00 p.m. hour, 28 truck trips (14 inbound trips and 14 outbound trips) during 10:00 a.m. and 2:00 p.m., and 24 truck trips (12 inbound trips and 12 outbound trips) during the 2:00 p.m. to 3:00 p.m. hour. (Soil nailing would include 3 trucks per day, spaced out over 5 hours and shotcrete would include 5 trucks per day, spaced out over 5 hours.) On Saturdays, up to 160 daily truck trips are also anticipated (6-hour workday, from 10:00 a.m. to 4:00 p.m., with up to 28 truck trips per hour). **Table 3.7-7** presents the estimated noise levels for each time period at sensitive receptors located along the haul route. As shown in this table, truck activity would not generate noise levels that exceed the 5-dBA incremental increase significance threshold. Therefore, the Proposed Project would result in a less-than-significant impact related to truck noise.

TABLE 3.7-7: OFF-SITE CONSTRUCTION HAUL TRUCK NOISE LEVELS

Scenario and Roadway Segment	Baseline (dBA L_{eq})	Construction (dBA L_{eq})	Increase (dBA L_{eq})
AM Peak Hour			
Coldwater Canyon Ave. between Ventura Freeway and Moorpark St.	~~71.1~~ 69.1	~~71.3~~ 69.4	~~0.2~~ 0.3
Coldwater Canyon Ave. between Moorpark St. and Ventura Blvd	~~69.9~~ 68.4	~~70.2~~ 68.8	~~0.3~~ 0.4
Coldwater Canyon Avenue south of Ventura Boulevard	~~68.4~~ 70.1	~~68.8~~ 70.4	~~0.4~~ 0.3
Weekday Afternoon (2:00 or 3:00 p.m.)			
Coldwater Canyon Ave. between Ventura Freeway and Moorpark St.	70.1	70.4	0.3
Coldwater Canyon Ave. between Moorpark Street and Ventura Blvd	70.0	70.3	0.3
Coldwater Canyon Ave. south of Ventura Blvd	70.4	70.7	0.3
Saturday			
Coldwater Canyon Ave. between Ventura Freeway and Moorpark St.	69.5	69.8	0.3
Coldwater Canyon Ave. between Moorpark St. and Ventura Blvd	69.2	69.6	0.4
Coldwater Canyon Ave. south of Ventura Blvd	69.2	69.7	0.5
SOURCE: TAHA, ~~2012~~ 2015-; see Appendix F.1 a) Construction Noise Level Calculations.			

<u>Vibration</u>

Typical vibration levels associated with construction equipment are provided in **Table 3.7-8**. Heavy equipment (e.g., a large bulldozer) generates vibration levels of 0.089 inches per second PPV at a distance of 25 feet. Soil nailing would generate vibration levels similar to caisson drilling. The closest residential structure not owned by Harvard-Westlake is about ~~91~~ <u>77</u> feet from the construction limit line on the Development Site. The maximum vibration level at this distance would be less than 0.01 inches per second PPV. Construction vibration would not exceed the 0.2 inches per second PPV at any residential structure <u>(St Michael's Church/Sunnyside Preschool would not be significantly impacted by vibration because of its distance from the construction activity)</u>. Therefore, the Proposed Project would result in a less-than-significant impact related to construction vibration.

TABLE 3.7-8: VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT	
Equipment	**PPV at 25 feet (Inches/Second)**
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003
SOURCE: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, May 2006.	

Operations

<u>Noise</u>

Parking Structure Noise. ~~Parking structure~~ <u>The operation of the Parking Structure</u> would periodically result in noise events associated with car alarms, car horns, slamming of car doors, engine revs, and tire squeals. Automobile movements would generate a noise level of approximately 58.1 dBA L_{eq} at a distance of 50 feet. The Proposed Project includes 750 enclosed parking spaces within the ~~three-floor~~ <u>3-story (4 level)</u> structure. As shown in **Table 3.7-9**, parking activity would not generate noise levels that exceed 3 dBA L_{eq}. <u>A 24-hour analysis was also completed for the Parking Structure.</u> The Parking Structure activity would ~~result in an incremental~~ increase ~~in~~ the 24-hour average noise levels from 48.3 dBA CNEL to 48.6 dBA CNEL <u>directly adjacent to the Parking Structure</u>. This negligible increase in CNEL would be well under the 5 dBA CNEL incremental increase significance threshold applicable to this area where homes are in the "normally acceptable" range of noise levels for single-family homes (noise level ranges are shown in **Table 3.7-2**). Therefore, the Project would result in a less-than-significant impact related to parking activity.

~~Athletic~~ <u>Practice</u> Field Noise. The Proposed Project would include a rooftop ~~athletic~~ practice field to serve as an accessory use to the Harvard-Westlake School. The ~~athletic~~ field does not include amplified program sound (i.e., music or spoken sound broadcast through a loudspeaker system), thereby minimizing noise impacts. The noise level at the rooftop ~~athletic~~ <u>practice</u> field was determined based on the existing ambient noise level at the existing campus athletic field (Ted Slavin Field) and making a distance adjustment to the measured ~~athletic~~ <u>practice</u> field source sound level. It is estimated that the rooftop ~~athletic~~ <u>practice</u> field would generate a noise level of approximately 70.6 dBA L_{eq} at a distance of 50 feet. <u>This is a conservative assumption since the practice field estimated noise level was derived from Ted Slavin Field, and, unlike Ted Slavin Field, the practice field would have no bleachers, public address system, or games.</u>

TABLE 3.7-9: PARKING STRUCTURE NOISE LEVELS					
Sensitive Receptor	**Distance from Parking Structure to Property Line (feet) /a/**	**Maximum Noise Level (dBA) /b/**	**Existing Ambient (dBA L_{eq}) /c/**	**New Ambient (dBA L_{eq}) /d/**	**Increase /e/**
12917 W. Galewood Street	~~330~~ 257	~~31.6~~ 34.3	60.7	60.7	0.0
12920 W. Galewood Street	200	37.0	44.9	45.6	0.7
12927 W. Galewood Street	387	29.9	44.9	45.0	0.1
12934 W. Galewood Street	381	23.1	44.9	44.9	0.0
12937 W. Galewood Street	482	17.5	44.9	44.9	0.0
12947 W. Galewood Street	596	18.2	44.9	44.9	0.0
12948 W. Galewood Street	569	11.7	44.9	44.9	0.0
12959 W. Galewood Street	705	9.4	44.9	44.9	0.0
12966 W. Galewood Street	743	8.8	44.9	44.9	0.0
12971 W. Galewood Street	800	8.0	44.9	44.9	0.0
3901 N. Van Noord Avenue	~~330~~ 351	~~27.6~~ 26.9	68.2	68.2	0.0
3905 N. Van Noord Avenue	387	32.9	68.2	68.2	0.0
3911 N. Van Noord Avenue	438	28.5	68.2	68.2	0.0
3917 N. Van Noord Avenue	498	24.1	60.7	60.7	0.0
3921 N. Van Noord Avenue	559	19.9	60.7	60.7	0.0
12949 W. Blairwood Drive	200	33.0	44.9	45.2	0.3
12950 W. Blairwood Drive	355	16.8	44.9	44.9	0.0
12951 W. Blairwood Drive	358	26.7	44.9	45.0	0.1
12952 W. Blairwood Drive	237	31.2	44.9	45.1	0.2
12954 W. Blairwood Drive	527	12.5	44.9	44.9	0.0
12956 W. Blairwood Drive	575	11.6	44.9	44.9	0.0
12958 W. Blairwood Drive	504	13.0	44.9	44.9	0.0
12960 W. Blairwood Drive	550	12.1	44.9	44.9	0.0
12965 W. Blairwood Drive	531	22.4	44.9	44.9	0.0
12970 W. Blairwood Drive	688	9.6	44.9	44.9	0.0
12979 W. Blairwood Drive	758	13.6	44.9	44.9	0.0
12980 W. Blairwood Drive	846	7.4	44.9	44.9	0.0
12997 W. Blairwood Drive	921	6.5	44.9	44.9	0.0
13070 W. Blairwood Drive	847	7.4	44.9	44.9	0.0
3630 Potosi ~~Drive~~ Avenue	562	11.8	50.2	50.2	0.0
3635 Potosi ~~Drive~~ Avenue	486	13.4	50.2	50.2	0.0
3643 Potosi ~~Drive~~ Avenue	431	14.7	50.2	50.2	0.0
3646 Potosi ~~Drive~~ Avenue	455	17.1	50.2	50.2	0.0
3654 Potosi ~~Drive~~ Avenue	407	21.3	50.2	50.2	0.0
3663 Potosi ~~Drive~~ Avenue	~~279~~ 318	~~39.4~~ 38.0	50.2	50.5	0.3
12850 Halkirk Street	778	18.3	68.2	68.2	0.0
St. Michael's Church and Sunnyside Preschool	830	17.6	55.4	55.4	0.0
Residences on Longridge Avenue	1,070	14.8	47.5	47.5	0.0

/a/ Distance of noise source from receptor. The distance is from the ~~parking structure~~ Parking Structure to the property line.
/b/ Parking activity sound level at receptor location with distance and building adjustment.
/c/ Pre-operational activity ambient sound level at receptor location.
/d/ New sound level at receptor location including parking activity.
/e/ An incremental noise level increase of 5 dBA [averaged over the day (CNEL)] or more would result in a significant impact. Noise levels shown here are more conservative since they show noise levels for the period of use, not a 24-hour day.
SOURCE: TAHA, ~~2013~~ 2015; see Appendix F.1 b) Operational Noise Level Calculations

As shown in **Table 3.7-10**, ~~athletic~~ practice field activity would generate noise levels less than a 5-dBA incremental time-averaged (L_{eq}) increase at all residences not owned by the Harvard-Westlake School except for the closest houses on Galewood Street and Blairwood Drive.~~[2]~~ During athletic activities, the maximum noise increase associated with field activity (averaged over activity periods) is estimated to be approximately 6.6 dBA L_{eq} at these residences ~~closest house on Galewood Street~~. This noise level associated with athletic activity would fluctuate throughout the day as the intensity of activity on the field fluctuates. Although field noise levels would intermittently exceed 5 dBA L_{eq} at the nearest residences, the City's ~~of Los Angeles~~ significance criteria requires a 24-hour noise analysis to determine the significance of impacts.

On a 24-hour basis, it is estimated that the existing CNEL in the ~~Project~~ area of the Development Site is approximately 48.3 dBA. With the Project it is anticipated that the CNEL with ~~athletic~~ practice field noise would increase to approximately ~~51.2~~ 51.3 dBA CNEL at the closest houses on Galewood Street and Blairwood Drive. Therefore, ~~athletic~~ practice field activity would increase the existing CNEL by approximately ~~2.9~~ 3.0 dBA at the closest homes not owned by Harvard-Westlake, which would not exceed the 5 dBA CNEL significance threshold (which is the appropriate threshold since the resultant noise level would be compatible with single-family residential use). Houses adjacent to the Development Site are located in residential neighborhoods without substantial noise sources (e.g., freeways or airports); the existing (and calculated future with Project) CNELs are within the acceptable ambient noise range for single-family residential use (see **Table 3.7-2** for identification of noise levels compatible with different types of land use).

Certain activities (e.g., whistles and shouting) would generate noise that would be audible at the exterior of homes in the area. Whistles typically generate an instantaneous maximum noise level ranging between 66.7 dBA to 73.1 dBA at a distance of 50 feet. The high pitch of whistle noise would be audible at surrounding land uses and could disturb daytime sleepers and could result in an annoyance to residents in the area. The subjective nature of annoyance means that there are large differences between individuals – some will have a negative reaction to a sound that others accept or even like. The severity of the noise annoyance is dependent on the regularity of the noise source. Because ~~athletic~~ practice field activity would not significantly impact CNEL (or interior noise levels) at even the closest houses on Galewood Street and Blairwood Drive, impacts to exterior noise levels are considered less than significant according to the City's ~~of Los Angeles~~ significance criteria. Therefore, the Proposed Project would not result in a significant impact related to ~~athletic~~ field noise levels.

Combined On-Site Noise. An analysis was also completed to assess the potential combined noise impacts of activities associated with the ~~athletic~~ practice field and parking activities in the ~~structure~~ Parking Structure. **Table 3.7-11** presents the combined on-site noise levels. The maximum combined incremental average noise level increase that would occur at the closest residences (not owned by the Harvard-Westlake School) on Galewood Street and Blairwood Drive would be 6.8 dBA L_{eq} ~~(during times when both athletic practice field activities are under way and parking activities are occurring)~~. This 6.8 dBA increase in noise levels would be for the times when activities are occurring in the Parking Structure and on the ~~athletic~~ practice field (Leq). In order to compare noise increases to the City's 5 dBA CNEL threshold, the noise levels must be analyzed within the context of a 24-hour day in order to identify the CNEL.

~~[2] The home at the end of Potosi Drive (3680) is owned by Harvard-Westlake and would experience athletic field noise levels greater than 5dBA Leq.~~

TABLE 3.7-10: ~~ATHLETIC~~ PRACTICE FIELD NOISE LEVELS

Sensitive Receptor	Distance from ~~Athletic~~ Practice Field to Property Line (feet) /a/	Maximum Noise Level (dBA) /b/	Existing Ambient (dBA, L_{eq}) /c/	New Ambient (dBA, L_{eq}) /d/	Increase /e/
12917 W. Galewood Street	252	47.0	60.7	60.9	0.2
12920 W. Galewood Street	184	50.5	44.9	51.5	6.6
12927 W. Galewood Street	382	42.5	44.9	46.9	2.0
12934 W. Galewood Street	375	35.7	44.9	45.4	0.5
12937 W. Galewood Street	477	30.1	44.9	45.0	0.1
12947 W. Galewood Street	590	30.8	44.9	45.1	0.2
12948 W. Galewood Street	563	24.3	44.9	44.9	0.0
12959 W. Galewood Street	699	22.0	44.9	44.9	0.0
12966 W. Galewood Street	738	21.4	44.9	44.9	0.0
12971 W. Galewood Street	794	20.6	44.9	44.9	0.0
3901 N. Van Noord Avenue	~~330~~ 434	~~40.1~~ 37.1	68.2	68.2	0.0
3905 N. Van Noord Avenue	382	45.5	68.2	68.2	0.0
3911 N. Van Noord Avenue	432	41.2	68.2	68.2	0.0
3917 N. Van Noord Avenue	492	36.8	60.7	60.7	0.0
3921 N. Van Noord Avenue	553	32.5	60.7	60.7	0.0
12949 W. Blairwood Drive	184	~~46.5~~ 50.5	44.9	~~48.8~~ 51.5	~~3.9~~ 6.6
12950 W. Blairwood Drive	349	29.5	44.9	45.0	0.1
12951 W. Blairwood Drive	349	39.5	44.9	46.0	1.1
12952 W. Blairwood Drive	231	44.0	44.9	47.5	2.6
12954 W. Blairwood Drive	505	25.5	44.9	44.9	0.0
12956 W. Blairwood Drive	552	24.5	44.9	44.9	0.0
12958 W. Blairwood Drive	483	26.0	44.9	45.0	0.1
12960 W. Blairwood Drive	544	24.7	44.9	44.9	0.0
12965 W. Blairwood Drive	532	34.9	44.9	45.3	0.4
12970 W. Blairwood Drive	682	22.2	44.9	44.9	0.0
12979 W. Blairwood Drive	752	26.2	44.9	45.0	0.1
12980 W. Blairwood Drive	840	20.0	44.9	44.9	0.0
12997 W. Blairwood Drive	921	19.0	44.9	44.9	0.0
13070 W. Blairwood Drive	746	21.3	44.9	44.9	0.0
3630 Potosi ~~Drive~~ Avenue	550	24.6	50.2	50.2	0.0
3635 Potosi ~~Drive~~ Avenue	469	26.3	50.2	50.2	0.0
3643 Potosi ~~Drive~~ Avenue	418	27.5	50.2	50.2	0.0
3646 Potosi ~~Drive~~ Avenue	450	29.7	50.2	50.2	0.0
3654 Potosi ~~Drive~~ Avenue	407	33.8	50.2	50.3	0.1
3663 Potosi ~~Drive~~ Avenue	~~276~~ 313	~~52.1~~ 50.7	50.2	~~54.2~~ 53.5	~~4.0~~ 3.3
12850 Haikirk Street	773	30.9	68.2	68.2	0.0
St. Michael's Church and Sunnyside Preschool	329	40.1	55.4	55.5	0.1
Residences on Longridge Avenue	1070	27.3	47.5	47.5	0.0

/a/ Distance of noise source from receptor. The distance is from the ~~athletic~~ practice field to the property line.
/b/ ~~Athletic field~~ Practice field activity sound level at receptor location with distance and building adjustment.
/c/ Ambient sound level at receptor location prior to proposed activity on the Development Site.
/d/ New sound level at receptor locations on completion of the ~~project~~ Project, including noise from the ~~athletic~~ practice field activity.
/e/ An incremental noise level increase of 5 dBA [averaged over a 24-hour day (CNEL)] or more would result in a significant impact. Noise levels shown here are more conservative since they show noise levels averaged over the period of use of the parking structure, not a 24-hour day.
SOURCE: TAHA, ~~2012~~ 2015; see Appendix F.1 b) Operational Noise Level Calculations

TABLE 3.7-11: COMBINED ~~ATHLETIC~~ PRACTICE FIELD AND PARKING NOISE LEVELS

Sensitive Receptor/a/	Combined Noise Level (dBA) /b/	Existing Ambient (dBA L_{eq}) /c/	New Ambient (dBA L_{eq}) /d/	Increase /e/
12917 W. Galewood Street	47.2	60.7	60.9	0.2
12920 W. Galewood Street	50.6	44.9	51.7	6.8
12927 W. Galewood Street	42.8	44.9	47.0	2.1
12934 W. Galewood Street	36.0	44.9	45.4	0.5
12937 W. Galewood Street	30.3	44.9	45.0	0.1
12947 W. Galewood Street	31.0	44.9	45.1	0.2
12948 W. Galewood Street	24.5	44.9	44.9	0.0
12959 W. Galewood Street	22.2	44.9	44.9	0.0
12966 W. Galewood Street	21.6	44.9	44.9	0.0
12971 W. Galewood Street	20.8	44.9	44.9	0.0
3901 N. Van Noord Avenue	40.3	68.2	68.2	0.0
3905 N. Van Noord Avenue	45.8	68.2	68.2	0.0
3911 N. Van Noord Avenue	41.4	68.2	68.2	0.0
3917 N. Van Noord Avenue	37.0	60.7	60.7	0.0
3921 N. Van Noord Avenue	32.7	60.7	60.7	0.0
12949 W. Blairwood Drive	~~46.6~~ 50.6	44.9	~~48.9~~ 51.7	~~4.0~~ 6.8
12950 W. Blairwood Drive	29.7	44.9	45.0	0.1
12951 W. Blairwood Drive	39.7	44.9	46.1	1.2
12952 W. Blairwood Drive	44.2	44.9	47.6	2.7
12954 W. Blairwood Drive	25.7	44.9	45.0	0.1
12956 W. Blairwood Drive	24.7	44.9	44.9	0.0
12958 W. Blairwood Drive	26.2	44.9	45.0	0.1
12960 W. Blairwood Drive	24.9	44.9	44.9	0.0
12965 W. Blairwood Drive	35.2	44.9	45.3	0.4
12970 W. Blairwood Drive	22.5	44.9	44.9	0.0
12979 W. Blairwood Drive	26.4	44.9	45.0	0.1
12980 W. Blairwood Drive	20.2	44.9	44.9	0.0
12997 W. Blairwood Drive	19.2	44.9	44.9	0.0
13070 W. Blairwood Drive	21.4	44.9	44.9	0.0
3630 Potosi ~~Drive~~ Avenue	24.8	50.2	50.2	0.0
3635 Potosi ~~Drive~~ Avenue	26.5	50.2	50.2	0.0
3643 Potosi ~~Drive~~ Avenue	27.8	50.2	50.2	0.0
3646 Potosi ~~Drive~~ Avenue	30.0	50.2	50.2	0.0
3654 Potosi ~~Drive~~ Avenue	34.1	50.2	50.3	0.1
3663 Potosi ~~Drive~~ Avenue	52.3	50.2	54.4	4.2
12850 Halkirk Street	31.1	68.2	68.2	0.0
St. Michael's Church and Sunnyside Preschool	40.2	55.4	55.5	0.1
Residences on Longridge Avenue	27.6	47.5	47.5	0.0

/a/ Distance from the ~~athletic~~ practice field or ~~parking structure~~ Parking Structure to the receptor (property line) can be found in Tables 3.7-9 and 3.7-10.
/b/ Sound level at receptor location including ~~athletic~~ practice field activity with distance and building adjustment.
/c/ Ambient sound level at receptor location prior to proposed activity on the Development Site.
/d/ New sound level at receptor location, including noise from combined parking and ~~athletic~~ practice field activity.
/e/ An incremental noise level increase of 5 dBA [averaged over a 24-hour day (CNEL)] or more would result in a significant impact. Noise levels shown here are more conservative since they show noise levels averaged over the period of use of the ~~athletic~~ practice field and parking structure, not a 24-hour day.
SOURCE: TAHA, ~~2013~~ 2015; see **Appendix F.1** b) Operational Noise Level Calculations

On a 24-hour basis, it is not anticipated that noise levels related to parking activity would substantially affect the existing CNEL (the metric by which a significant impact is identified). Parking-related noise would generally occur over a few hours when vehicles are arriving or departing the ~~structure~~ Parking Structure and the majority of hourly noise levels would not be changed by parking activity. The CNEL would be predominantly affected by ~~athletic~~ practice field noise. As described above, ~~athletic~~ practice field noise would not significantly increase the CNEL in the ~~project~~ area of the Development Site. The increase in CNEL as a result of both parking activity and ~~athletic~~ practice field noise would be approximately 3 dBA CNEL. Therefore, the Proposed Project would result in a less-than-significant impact (according to the City's ~~of Los Angeles~~ criteria) related to total operational noise as a result of parking and ~~athletic~~ practice field noise.

Mobile Source Noise. The Proposed Project would not generate new vehicle trips to and from the ~~site~~ Development Site since student enrollment and the number of events at the Harvard-Westlake School would not change. According to the traffic analysis, operational changes associated with the Proposed Project would be associated with a localized distribution shift of traffic along Coldwater Canyon Avenue. Mobile source noise levels are not anticipated to increase at nearby residential land uses since trip distribution would not alter roadway volumes beyond the segment in front of the Development Site. Therefore, the Proposed Project would result in a less-than-significant impact related to mobile source noise levels.

As part of the Proposed Project, on-street parking currently permitted along the east side of Coldwater Canyon Avenue – between the north entrance driveway and the Hacienda Drive driveway – would be removed. Vehicles that currently park on-street on Coldwater Canyon Avenue would therefore be incentivized to park at the proposed Parking Structure. In addition, school-related vehicles parked in the adjacent residential neighborhood, located north of existing Harvard-Westlake School, would therefore be incentivized to the proposed Parking Structure as well. Residential land uses located north of Harvard-Westlake School would benefit from a mobile noise level reduction.

School Bus Noise. As part of Proposed Project, the South Parking Lot located immediately south of Hacienda Drive would no longer be available for student parking. Instead, the South Parking Lot would be utilized for school bus drop-off/pick-up and school bus turnaround. As a result, bus traffic would shift accordingly to the Hacienda Drive driveway from Coldwater Canyon Avenue. School bus noise would be related to pressure release from the braking system and doors opening and closing, idling, and engine revs. Bus horns and back up alarms would generate the loudest instantaneous noise levels. Sound measurements were taken using a SoundPro DL Sound Level Meter on October 29, 2012 at 2:00 p.m. to determine school bus noise. The instantaneous noise levels for start-up, back-up alarm, and horn generated from a single bus is approximately 62.0, 63.1, and 77.5 dBA L_{max} at a distance of 50 feet, respectively. Bus noise may be intermittently audible at nearby residential land uses and St. Michael's Church and Sunnyside Preschool.

Typical bus activity at the South Parking Lot would include approximately eight school buses in the morning and afternoon. The AM drop-off is targeted at arriving at 7:30 a.m. and drivers generally depart within 60 minutes. The PM early departure begins at approximately 2:45 p.m. and drivers generally depart within 30 minutes. The PM late departure begins at approximately 5:30 p.m. and drivers generally depart within 30 minutes. In addition, visiting teams would generate approximately two or three bus trips per week (arriving 3:00 p.m. to 4 p.m. and departing 8:00 p.m. to 10:00 p.m.). California law governs how long a bus is allowed to idle, and engines are off upon arrival and cannot be restarted until 30 seconds before departure. Therefore, bus activity would be short-term and limited to a few minutes in the morning and after school. In addition, drivers would shut off bus engines during the drop-off/pick-up and would not idle the buses for extended periods of time. School bus noise levels would be short-term and would not significantly change existing CNEL ambient noise. Therefore, the Proposed Project would result in a less-than-significant impact related to school bus noise.

Vibration

The Proposed Project would not include significant stationary sources of ground-borne vibration, such as heavy equipment operations. Operational ground-borne vibration in the Project vicinity would be generated by vehicular travel on the local roadways. However, similar to existing conditions, Project-related traffic vibration levels would not be perceptible by sensitive receptors. Therefore, the Proposed Project would result in a less-than-significant impact related to operational vibration.

CUMULATIVE IMPACTS

A significant impact would occur if the Proposed Project resulted in a cumulative increase in noise levels. The Proposed Project, without mitigation, would result in significant construction noise impact. Construction noise is a local impact and the nearest related project is ~~a mixed-use development~~ the Sportman's Lodge Project located at ~~12548~~ the intersection of Ventura Boulevard and Coldwater Canyon Avenue. This related project is located ~~over 2,000~~ approximately 1,900 feet from the Development Site and separated by hilly terrain. Construction noise from this Project would not combine to increase ambient noise levels. The ~~Department of Water and Power (~~DWP~~)~~ is constructing a trunk line along Coldwater Canyon Avenue. DWP indicates that construction of the Proposed Project would not overlap with construction on the trunk line (construction activities are already about ½ mile from the Harvard-Westlake School to the north and approximately 2 miles from the Harvard-Westlake School to the south). The Proposed Project would not generate new vehicle trips to and from the ~~site~~ Development Site since student enrollment at Harvard-Westlake School would not change. Therefore, the Proposed Project would not contribute to cumulative operational noise levels.

REGULATORY COMPLIANCE MEASURES

RC-N-1: All construction truck traffic shall be restricted to truck routes approved by the City of Los Angeles Department of Building and Safety, which shall avoid residential areas and other sensitive receptors to the extent feasible.

RC-N-2: The Proposed Project shall comply with the City of Los Angeles Noise Ordinance (LAMC Chapter XI), and any subsequent ordinances, which prohibits the emission or creation of noise beyond certain levels at adjacent uses unless technically infeasible.

~~**RC-N-3:** Construction and demolition shall be restricted to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, and prohibited on all Sundays and federal holidays.~~

RC-N-34: The Proposed Project shall comply with the LAMC Section 91.106.4.8, which requires a construction site notice to be provided that includes the following information: job site address, permit number, name and phone number of the contractor and owner or owner's agent, hours of construction allowed by code or any discretionary approval for the site, and City telephone numbers where violations can be reported. The notice shall be posted and maintained at the construction site prior to the start of construction and displayed in a location that is readily visible to the public and approved by the City's Department of Building and Safety.

MITIGATION MEASURES

The following mitigation measures would reduce construction noise but not to a less than significant level.

MM-N-1: The construction contractor shall ensure that noise-generating equipment operated at the Development Site is equipped with the most effective noise control devices (i.e., mufflers, lagging, and/or motor enclosures).

MM-N-2: The construction contractor shall ensure that all equipment is properly maintained to prevent additional noise due to worn or improperly maintained parts.

MM-N-3: The construction contractor shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than metal-tracked equipment).

MM-N-4: The construction contractor shall minimize the use of equipment or methods with the greatest peak noise generation potential.

MM-N-5: The construction contractor shall schedule construction activities to avoid operating several pieces of equipment simultaneously, where feasible.

MM-N-6: When possible, the construction contractor shall use on-site electrical sources to power equipment rather than diesel generators.

MM-N-7: The construction contractor shall locate construction staging areas away from sensitive uses.

MM-N-8: Two weeks prior to the commencement of construction at the Development Site, notification shall be provided to the immediate surrounding off-site residential uses and St. Michael's Church/Sunnyside Preschool that discloses the construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period.

MM-N-9: A “noise disturbance coordinator” shall be established. The noise disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The noise disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the noise disturbance coordinator.

MM-N-10: The site administrator for Harvard-Westlake School shall coordinate with the construction contractor to schedule construction activity such that student exposure to noise is minimized.

MM-N-11: Construction and demolition shall be restricted to the hours of 7:00 a.m. to 5:00 p.m. Monday through Friday, and 8:00 a.m. to 4:00 p.m. on Saturday, and prohibited on all Sundays and federal holidays.

Impacts related to construction vibration would be less than significant. No mitigation measures are required.

Impacts related to operational noise and vibration would be less than significant. No mitigation measures are required.

SIGNIFICANCE AFTER MITIGATION

Mitigation Measure **MM-N-1** would reduce construction noise levels by approximately 3 dBA. Mitigation Measures **MM-N-2** through **MM-N-9**, while difficult to quantify, would assist in attenuating construction noise levels. **Table 3.7-12** shows mitigated construction noise levels after application of Mitigation Measure **MM-N-1** at receptors that would be significantly impacted; the other measures could further reduce noise levels. Mitigated construction noise levels would still exceed the 5-dBA City of Los Angeles construction noise significance threshold at approximately ~~13~~ 16 residences adjacent to the construction site west of Coldwater Canyon Avenue and ~~22~~ 34 residences on the east side of Coldwater Canyon Avenue. In addition, St. Michael's Church (which includes the Sunnyside Preschool) would be significantly impacted. Therefore, the Proposed Project would result in a significant and unavoidable impact related to construction noise.

Mitigation Measure **MM-N-10** would ensure that the Harvard-Westlake School coordinates with the construction contractor to keep student exposure to noise at a minimum.

Operational noise from all sources (mobile, ~~athletic~~ practice field, parking and bus activity) would be less than significant. Impacts related to construction vibration and operational noise and vibration would also be less than significant without mitigation.

TABLE 3.7-12: MITIGATED CONSTRUCTION NOISE – SIGNIFICANTLY IMPACTED RESIDENCES, ST. MICHAEL'S CHURCH, AND SUNNYSIDE PRESCHOOL

Street/ Receptor	Number of Significantly Impacted Receptors	Distance from Construction Limit Line to Property Line (feet) /a/	Maximum Construction Noise Level (dBA) /b/	Existing Ambient (dBA L_{eq}) /c/	Temporary New Ambient (dBA L_{eq}) /d/	Range of Noise Increases
Galewood Street	6	~~43 – 354~~ 92 - 470	~~51.7 - 81.6~~ 55.5 - 80.2	44.9 – 60.7	~~52.6 - 81.7~~ 55.8 - 80.2	~~7.7 – 25.3~~ 10.9 - 28.8
Van Noord Avenue	~~2~~ 3	~~54 – 125~~ 77 - 290	~~73.1 - 85.2~~ 64.7 - 78.1	60.7 – 68.2	~~74.3 - 85.3~~ 66.2 - 78.5	~~6.1 – 17.1~~ 5.5 - 10.3
Blairwood Drive	~~4~~ 5	~~163 – 531~~ 197 - 643	~~50.3 - 63.2~~ 48.4 - 71.9	44.9	~~51.4 - 63.2~~ 50.0 - 71.9	~~6.5 – 18.3~~ 5.1 - 27.0
Potosi ~~Drive~~ Avenue	~~1~~ 2	~~189~~ 279 - 407	~~71.6~~ 56.0 - 74.1	50.2	~~71.6~~ 57.0 - 74.2	~~21.4~~ 6.8 - 24.0
Avenida Del Sol	~~16~~ 21	~~251 – 550~~ 319 - 858	~~60 - 68.5~~ 61.9 - 72.7	55.4	~~61.3 – 68.7~~ 62.8 - 72.8	~~5.9 – 13.3~~ 7.4 - 17.4
Alta Mesa Drive	~~6~~ 13	~~484 – 606~~ 532 - 865	~~58.9 - 61.4~~ 61.9 - 67.1	55.4	~~60.5 - 62.3~~ 62.7 - 67.4	~~5.1 – 6.9~~ 7.3 - 12.0
St. Michael's Church and Sunnyside Preschool	1	~~329~~ 432	~~65.5~~ 59.4	55.4	~~65.9~~ 60.9	~~10.5~~ 5.5

/a/ This distance is from the construction limit line to the property line of the receptor.
/b/ Construction noise source's sound level at receptor location with distance and building adjustment as applicable.
/c/ Pre-construction activity ambient sound level at receptor locations.
/d/ New sound level at receptor location during the construction period, including noise from construction activity.
SOURCE: TAHA, ~~2013~~ 2015; see Appendix F.1 a) Construction Noise Level Calculations

3.8 TRANSPORTATION, CIRCULATION AND PARKING

This section provides an overview of traffic, circulation and parking impacts and evaluates the construction and operational impacts associated with the Proposed Project. Since the Project is the construction of parking with a rooftop ~~athletic~~ practice field to be used by the existing school use, it would not generate new trips, except for the temporary trips generated during the construction of the Project. Rather it would change turning movements. The Project includes removing Harvard-Westlake School associated parking from Coldwater Canyon Avenue and neighborhoods to the north of the Harvard-Westlake Campus and providing roadway improvements to facilitate movement through the area. The analysis below is summarized from the following reports – provided in **Appendix G**, **Appendix G.1**, and **G.2** and a peer review of these studies provided in **Appendix G.3**.

- Traffic and Parking Impact Study, Harvard-Westlake School Parking Improvement Plan, Linscott, Law and Greenspan, October 2012 (**Appendix G**) and associated appendices (**Appendix G.1** of the EIR).
- Supplemental Traffic Analysis, Memorandum to Sergio Valdez, LADOT; from David Shender, P.E., and Corinna M. Gutierrez, P.E., LLG; Harvard-Westlake School Parking, Safety and Athletics Improvement Plan – October 6, 2015 (**Appendix G.2**).
- Crain & Associates, Peer Review, October 19, 2015 (**Appendix G.3**)
- LADOT Supplemental Traffic Analysis Approval Letter, November 16, 2015 (**Appendix G.4)**

EXISTING CONDITIONS

Region

The general location of the Project in relation to the study locations and surrounding street system is presented in **Figure 2–1**. Regional access to the Project Site is provided by the U.S. 101 (Ventura) Freeway.

U.S. 101 (Ventura) Freeway is a major north-south freeway that extends across northern and southern California. In the Project vicinity, five main travel lanes are provided in each direction on the U.S. 101 Freeway. Both northbound and southbound ramps are provided on the U.S. 101 Freeway at Coldwater Canyon Avenue, which are located approximately one mile north of the Project Site.

Local Intersections and Roadways

Immediate access to the Project Site is provided by Coldwater Canyon Avenue. The following intersections were selected for analysis (the jurisdiction in which each study intersection is located is identified in parentheses):

1. Coldwater Canyon Avenue/US-101 Freeway Northbound Ramps (City ~~of Los Angeles~~/Caltrans)
2. Coldwater Canyon Avenue/US-101 Freeway Southbound Ramps (City ~~of Los Angeles~~/Caltrans)
3. Coldwater Canyon Avenue/Moorpark Street (City ~~of Los Angeles~~)
4. Coldwater Canyon Avenue/Ventura Boulevard (City ~~of Los Angeles~~)
5. Coldwater Canyon Avenue/Harvard-Westlake Driveway (City ~~of Los Angeles~~)

These locations have the greatest potential to experience significant traffic impacts due to the Project because they are:

- Immediately adjacent or in close proximity to the Project Site;

- In the vicinity of the Project Site and are already expected ~~that are documented~~ to have current or projected future adverse operational issues unrelated to the Project; and
- In the vicinity of the Project Site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements during construction (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, existing Harvard-Westlake peak hour vehicle trip generation, the anticipated distribution of Project and construction vehicular trips and existing intersection/corridor operations.

All five study intersections selected for analysis are presently controlled by traffic signals. The existing lane configurations at the study intersections are shown in **Appendix G.** Manual traffic counts of vehicular turning movements were conducted at each of the study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 a.m. to 10:00 a.m. to determine the AM peak commuter hour and from 3:00 p.m. to 6:00 p.m. to determine the PM peak commuter hours. Traffic volumes at the study intersections show the typical peak periods between 7:00 a.m. to 10:00 a.m. and 3:00 p.m. to 6:00 p.m. generally associated with the peak morning and afternoon commuter time periods. Traffic counts were also conducted on a Saturday in order to determine the peak midday Saturday hour.

Manual traffic counts of vehicular turning movements were also conducted at the existing Harvard-Westlake Campus driveways during the weekday morning and afternoon commuter periods, as well as for an additional hour from 2:00 p.m. to 3:00 p.m. in conjunction with typical p.m. peak departure patterns at the Harvard-Westlake Campus to determine the school peak hour traffic volumes. It should be noted that while school-related traffic volumes at the existing driveways showed the a.m. peak hour to be similar for both the commuter and school peak hours, school-related traffic volumes during the afternoon peak hour did not directly coincide with the highest peak of commuter afternoon traffic volumes along Coldwater Canyon Avenue. Rather, traffic volumes at the existing driveways show the typical school peak periods between 7:00 a.m. to 9:00 a.m. and 2:00 p.m. to 4:00 p.m. generally associated with the peak arrival and departure patterns of the school.

The weekday commuter AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in **Table 3.8-1**. The traffic counts were conducted in January 2011, which was prior to the current City Trunk Line construction Project on Coldwater Canyon Avenue by the Los Angeles Department of Water and Power (DWP) (thus, there were no travel lane constrictions on Coldwater Canyon Avenue at the time of the intersection traffic counts). In addition, for purposes of this analysis, the existing traffic volumes were increased by a factor of 2% in order to reflect 2012 conditions. The existing traffic volumes at the study intersections during the weekday commuter AM and PM peak hours are shown in **Appendix G**.

Updated counts were taken in 2015, but they showed lower traffic volumes than 2011 and therefore in the interests of being conservative, the 2011 counts are used in this analysis for all intersections. See **Appendix G.2**.

The weekday school AM and PM peak period manual counts of vehicle movements are summarized in **Table 3.8-2.** The existing traffic volumes at the study intersections during the weekday school AM and PM peak hours are shown in **Appendix G**. Summary data worksheets of the manual traffic counts at the study intersections are contained in **Appendix G**.

TABLE 3.8-1: EXISTING TRAFFIC VOLUMES (Commuter Peak Hours)							
No.	**Intersection**	**Date***	**Dir.**	**AM Peak Hour**		**PM Peak Hour**	
				Began	**Volume**	**Began**	**Volume**
1	Coldwater Canyon Avenue/ US-101 Freeway NB Ramps	01/27/2011	NB	7:30	714	5:00	1,641
			SB		1,283		888
			EB		0		0
			WB		534		588
2	Coldwater Canyon Avenue/ US-101 Freeway SB Ramps	01/27/2011	NB	7:45	1,037	5:00	1,719
			SB		1,105		1,000
			EB		300		689
			WB		0		0
3	Coldwater Canyon Avenue/Moorpark Street	01/27/2011	NB	8:00	700	5:00	1,469
			SB		1,005		1,010
			EB		837		712
			WB		623		804
4.	Coldwater Canyon Avenue/ Ventura Boulevard	01/27/2011	NB	7:45	558	4:45	1,393
			SB		963		878
			EB		1,468		1,483
			WB		957		1,560
5	Coldwater Canyon Avenue/ Harvard-Westlake Driveway	01/27/2011	NB	7:15	474	5:00	1,311
			SB		1,307		767
			EB		0		0
			WB		45		117

* Note that updated counts were taken in 2015, but they showed lower traffic volumes than 2011 and therefore in the interests of being conservative, the 2011 counts are used in this analysis for all intersections. See **Appendix G.2**.
SOURCE: Counts Conducted by The Traffic Solution

TABLE 3.8-2: EXISTING TRAFFIC VOLUMES (School Peak Hours)							
No.	**Intersection**	**Date***	**Dir.**	**AM Peak Hour**		**PM Peak Hour**	
				Began	**Volume**	**Began**	**Volume**
5	Coldwater Canyon Avenue/ Harvard-Westlake Driveway	01/27/2011	NB	7:15	474	2:45	1,244
			SB		1,306		742
			EB		0		0
			WB		45		131

* Note that updated counts were taken in 2015, but they showed lower traffic volumes than 2011 and therefore in the interests of being conservative, the 2011 counts are used in this analysis. See **Appendix G.2**.
SOURCE: Counts Conducted by The Traffic Solution

Brief descriptions of the important roadways in the vicinity of the Development Site are as follows:

Coldwater Canyon Avenue is a north-south roadway that borders the Project Site to the east and the existing Harvard-Westlake Campus to the west. Coldwater Canyon Avenue is classified as a Secondary Highway in the City of Los Angeles General Plan Transportation Element (the recently adopted Mobility Plan designates Coldwater Canyon Avenue as an Avenue II rather than the previous designation of Secondary Highway). Two through travel lanes are provided in each direction on Coldwater Canyon Avenue north of Ventura Boulevard. One travel lane is provided in each direction on Coldwater Canyon Avenue south of Dickens Street. Separate exclusive left-turn lanes are provided on Coldwater Canyon Avenue at major intersections in the Project study area. Coldwater Canyon Avenue is posted for 35 miles per hour speed limit north of Hacienda Drive and a 30 miles per hour speed limit south of Hacienda Drive, except adjacent to Harvard-Westlake Campus where a School Zone 25 miles per hour speed limit is posted.

Halkirk Street is an east-west roadway that is located north of the Project Site. Halkirk Street is designated as a Local Street in the local Community Plan. One through travel lane is generally provided in each direction on Halkirk Street. Street intersections on Halkirk Street are currently stop-controlled in the Project area. There is no posted speed limit on Halkirk Street, thus it is assumed to be a prima-facie speed limit of 25 miles per hour.

Hacienda Drive is an east-west roadway that is located immediately south of the Project Site. Hacienda Drive has been vacated and is designated as a Private Street east of Coldwater Avenue. One through travel lane is generally provided in each direction. Street intersections on Hacienda Drive are currently stop-controlled in the Project area. There is no posted speed limit on Hacienda Drive, thus it is assumed to be a prima-facie speed limit of 25 miles per hour. West of Coldwater Canyon Avenue, immediately south of the Development Site, Hacienda Drive remains a dedicated (planned) but unimproved street.

Avenida del Sol is an east-west roadway that is located just south of the Project Site. Avenida del Sol is designated as a Local Street in the local Community Plan. One through travel lane is generally provided in each direction on Avenida del Sol. Street intersections are currently stop-controlled in the Project area. There is no posted speed limit on Avenida del Sol, thus it is assumed to be a prima-facie speed limit of 25 miles per hour.

Moorpark Street is an east-west roadway that is located north of the Project Site. Moorpark Street is designated as a Secondary Highway in the City of Los Angeles–General Plan Transportation Element. One through travel lane is generally provided in each direction on Moorpark Street in the Project vicinity. Separate exclusive left-turn lanes are provided on Moorpark Street at major intersections in the Project area. Moorpark Street is posted for a 35 miles per hour speed limit in the Project vicinity.

Ventura Boulevard is an east-west roadway that is located north of the Project Site. Ventura Boulevard is designated as a Major Highway Class II in the City of Los Angeles-General Plan Transportation Element. Two through travel lanes are provided in each direction on Ventura Boulevard near the Project Site. Separate exclusive left-turn lanes are provided on Ventura Boulevard at major intersections in the Project area. Ventura Boulevard is posted for a 35 miles per hour speed limit in the area.

Public Bus Transit Services

Public bus transit service in the Project study area is currently provided by the Los Angeles County Metropolitan Transportation Authority (Metro) and the Los Angeles Department of Transportation (LADOT). A summary of the existing transit service, including the transit route, destinations and peak hour headways is presented in **Table 3.8–3**. The existing public transit routes provided within the Project Site vicinity are illustrated in **Appendix G**.

TABLE 3.8-3: EXISTING TRANSIT ROUTES					
Route	Destinations	Roadways near Site	No. of Buses During Peak Hour		
			Dir.	AM	PM
Metro 150/240	Universal City to Canoga Park (via Studio City, Sherman Oaks, Encino, Tarzana, Reseda, Northridge, Woodland Hills, and Canoga Park)	Ventura Boulevard	EB	4	6
			WB	5	5
Metro 167	Chatsworth to Studio City (via Northridge, North Hills, Panorama City, and North Hollywood)	Coldwater Canyon, Whitsett Ave., Ventura Blvd, Moorpark St.	EB	1	2
			WB	2	1
Metro Rapid 750	Universal City to Warner Center (via Sherman Oaks and Tarzana)	Ventura Boulevard	EB	5	5
			WB	10	5
LADOT DASH Van Nuys/ Studio City	Van Nuys to Studio City (via Sherman Oaks)	Moorpark Street	EB	2	2
			WB	2	2
			Total	31	28
SOURCES: Los Angeles County Metropolitan Transportation Authority (Metro) and Los Angeles Department of Transportation (LADOT) websites, February 2012.					

Harvard-Westlake Campus and Development Site Access

Vehicular access to the existing campus is presently provided via three driveways located on the east side of Coldwater Canyon Avenue:

- North Entrance Driveway: The north entrance driveway is located on the east side of Coldwater Canyon Avenue at the northwest corner of the Harvard-Westlake Campus. The north entrance driveway presently accommodates a majority of student pick-ups/drop-offs as well as access to faculty parking. The north entrance driveway currently provides full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

- Harvard-Westlake Driveway: The Harvard-Westlake driveway is located on the east side of Coldwater Canyon Avenue at the main entrance to the Harvard-Westlake Campus and is controlled by a traffic signal. The Harvard-Westlake driveway presently accommodates both staff and student vehicles. The Harvard-Westlake driveway currently provides full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

- Hacienda Drive Driveway: The Hacienda Drive driveway is located on the east side of Coldwater Canyon Avenue at Hacienda Drive at the south end of the Harvard-Westlake Campus. The Hacienda Drive driveway presently accommodates student vehicles and provides access to the Harvard-Westlake School. In addition, the Hacienda Drive driveway provides access to the parking lot immediately south of Hacienda Drive and north of St. Michael's and All Angels Episcopal Church (Southern Parking Lot), which currently serves as student parking during school hours. The Hacienda Drive driveway currently provides full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

Vehicular access to the Proposed Site is presently provided via two partially paved driveways on the west side of Coldwater Canyon Avenue, south of the existing Harvard-Westlake driveway and north of Hacienda Drive. Access to the Development Site would be provided solely from Coldwater Canyon Avenue; no access to the Development Site would be provided from Galewood Street, Blairwood Drive, Potosi Avenue or any other street except Coldwater Canyon Avenue.

Parking

A total of 578 parking spaces are currently required and provided on the existing Harvard-Westlake Campus. However, the existing supply of parking is insufficient to accommodate existing parking demand during regular school days, or during school-related activities that occur outside regular school hours such as football games and graduation. Approximately 400 students, 185 faculty and staff, 50 vendors and 30 coaches drive to school on a typical school day. In addition, parents, student athletes from other schools, and visitors come to the campus on a regular basis. Students who do not drive or take a bus, carpool with other students, or are dropped off and picked up by parents.

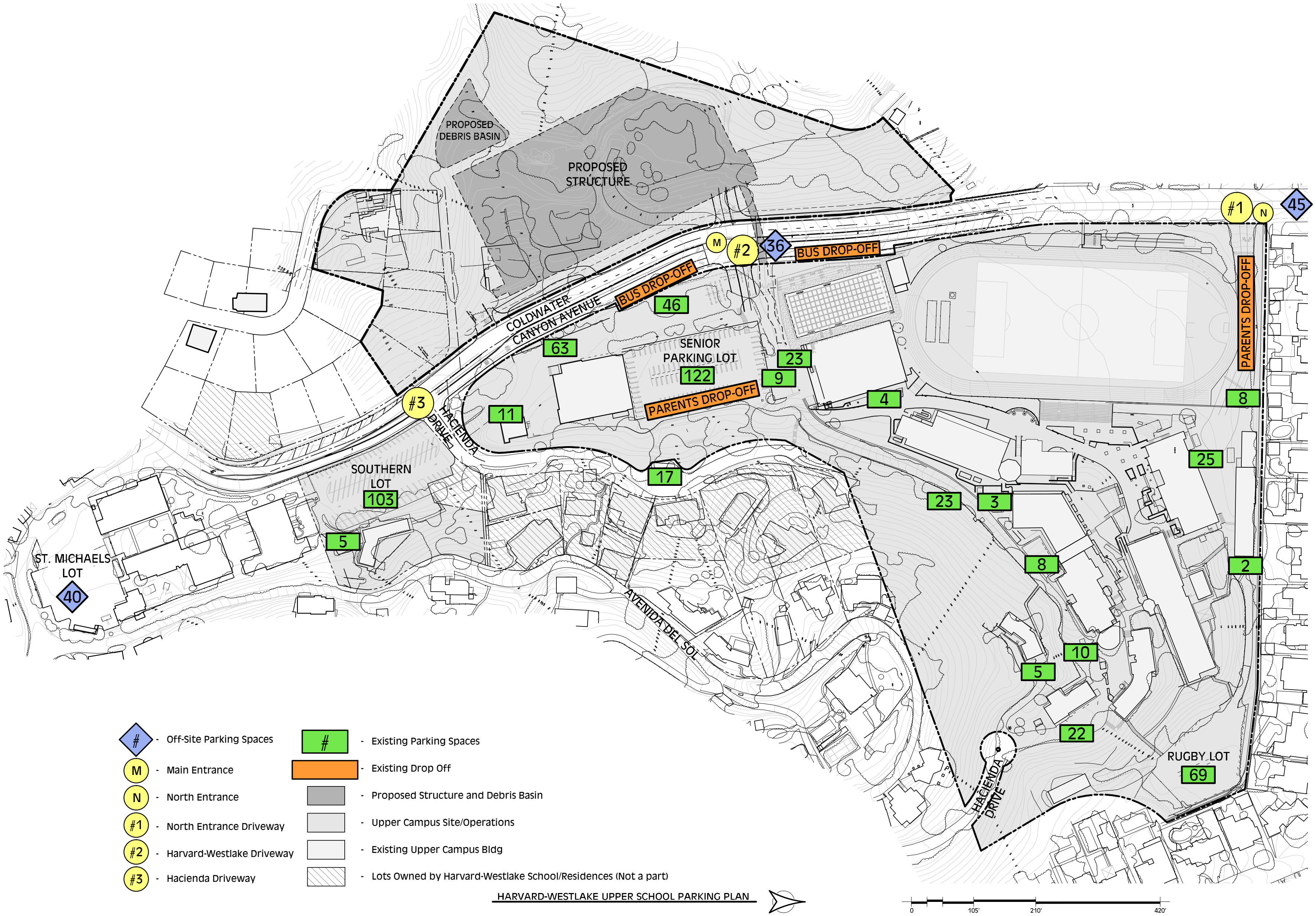
Harvard-Westlake School estimates that football games have an attendance of approximately 1,500 to 2,000 people and an associated demand for approximately 800 parking spaces. Graduation attracts approximately 5,000 people with an associated demand for approximately 1,800 spaces. As a result, school-related vehicles regularly park on-street on Coldwater Canyon Avenue, as well as in the residential neighborhood nearby (see **Appendix G**, *Table 6-3*). Existing parking areas and drop-off zones are shown in **Figure 3.8-1**.

Harvard-Westlake currently undertakes a number of measures to reduce trips. These measures include:

- Bus Service: Approximately one-third of the students arrive to Harvard-Westlake School via the school’s bus service (approximately 300 riders). Currently, Harvard-Westlake School operates eight bus lines, together servicing both the San Fernando Valley and Westside. To encourage use of the bus service, Harvard-Westlake School subsidizes approximately 50% of the costs through the parking fees charged to students who drive to Harvard-Westlake School. Approximately 8 students take the Metro bus system to school (Harvard-Westlake provides no incentives to ride the Metro bus).

- Discounts for Carpoolers: Students who drive to school are charged a parking fee, however, reductions in the fees are provided to students who arrive to school with one or more passengers. As noted above, the fees collected from student drivers are used to subsidize the school’s bus service.

- Ride-Matching: Harvard-Westlake provides ride-matching services for purposes of forming carpools.



SOURCE: IDG Parkitects, Inc.

Harvard-Westlake Parking Structure ■

Figure 3.8-1

Existing Parking and Drop Off Zones

REGULATORY FRAMEWORK

County

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

City of Los Angeles

The site of the proposed Parking Structure is located along the west side of Coldwater Canyon Avenue. Provisions in the ~~Municipal Code~~ LAMC require the City to consider half-street dedications and improvements for roadways adjacent to development sites in accordance with adopted standards in the Transportation Element of the General Plan. Coldwater Canyon Avenue is designated as a Secondary Highway in the Transportation Element of the City of Los Angeles General Plan. ~~Coldwater Canyon Avenue is designated as a Secondary Highway in the Transportation Element of the City of Los Angeles General Plan.~~ The standard cross-section for a Secondary Highway is a 70-foot roadway on a 90-foot right-of-way (or a 35-foot half roadway on a 45-foot half right-of-way as measured from the centerline). Review of City as-built plans show an existing half roadway width of 24 feet and a half right-of-way width of 30 feet along the west side of Coldwater Canyon Avenue adjacent to the Project Site.

In August 2015 the City Council approved MP 2035. MP 2035 provides the policy foundation for achieving a transportation system that balances the needs of all road users. As an update to the City's General Plan Transportation Element (last adopted in 1999), MP 2035 incorporates "complete streets" principles and lays the policy foundation for how future generations of Angelenos interact with their streets. It addresses the Complete Street Act requirements to provide a balanced multi-modal network. Within MP 2035 Coldwater Canyon Avenue adjacent to the Project Site is designated Avenue II (and continues to be identified as a Scenic Street/Highway). Streets designated Avenue II are planned with an 86 foot right-of-way and 56 foot roadway width.

Review and approval of a haul route will be required to be obtained from the City of Los Angeles Board of Building and Safety Commissioners.

THRESHOLDS OF SIGNIFICANCE

The relative impact of the added traffic volumes to be generated by the construction phases of the Proposed Project during the weekday commuter AM and PM peak hours and peak midday Saturday hour were ~~was~~ evaluated based on analysis of existing and future operating conditions at the study intersections, without and with the construction traffic. Likewise, the relative impact of the shifted Project traffic volumes during the school AM and PM peak hours, as discussed in detail in the Project Operation Traffic Analysis below, was evaluated based on analysis of existing and future operating conditions at the study intersections, without and with the Proposed Project. The capacity analysis procedures (see methodology discussion below) were utilized to evaluate the future volume-to-capacity (*v/c)* relationships and service level characteristics at each study intersection.

The significance of the potential impacts of construction and Project-related traffic was identified using the traffic impact criteria set forth in LADOT's *Traffic Study Policies and Procedures,* ~~May, 2012~~ August 2014. According to the City's published traffic study guidelines, the impact is considered significant if the construction or Project-related increase in the *v/c* ratio equals or exceeds the thresholds presented in **Table 3.8–4**.

TABLE 3.8-4: INTERSECTION IMPACT THRESHOLD CRITERIA		
Final *v/c*	**Level of Service**	**Project Related Increase in *v/c***
> 0.701 - 0.800	C	equal to or greater than 0.040
> 0.801 - 0.900	D	equal to or greater than 0.020
>0.901	E or F	equal to or greater than 0.010

The City's Sliding Scale Method requires mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection *v/c* ratio by an amount equal to or greater than the values shown above.

CMP Intersections

According to Section D.9.1 (Appendix D, page D-6) of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

> "A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C $\geq$ 0.02), causing or worsening LOS F (V/C > 1.00)."

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

IMPACTS

Project Access

Vehicular access to the Project Site would be provided via two driveways located along the west side of Coldwater Canyon Avenue. Descriptions of the Project Site driveways are provided in the following paragraphs:

- *Northerly Project Driveway:* The northerly Project driveway would be located on the west side of Coldwater Canyon Avenue at the northeast corner of the Parking Structure. The northerly Project driveway would be located directly across from the Harvard-Westlake driveway following the relocation of the existing traffic signal. The northerly Project driveway would provide primary access into the proposed Parking Structure and will accommodate full vehicular access (i.e., left-turn and right-turn ingress and egress movements).

- *Southerly Project Driveway:* The southerly Project driveway would be located on the west side of Coldwater Canyon Avenue at the southeast corner of the Project Site. The southerly Project driveway would provide secondary access to the proposed Parking Structure and would accommodate limited vehicular access (i.e., right-turn ingress and right-turn egress movements, with left-turn egress permitted outside of the weekday period 7:00 a.m. – 7:00 p.m.).

No access to the Project Site would be provided from Galewood Street, Blairwood Drive, Potosi Avenue ~~Street~~, or any other street except Coldwater Canyon Avenue.

The Project includes a new pedestrian bridge crossing Coldwater Canyon Avenue, connecting the proposed Parking Structure to the Harvard-Westlake ~~School~~ Campus. The proposed pedestrian bridge would allow for safe crossing between the Parking Structure and the Campus on the east side of Coldwater Canyon Avenue without stopping vehicles traveling north and south along Coldwater Canyon Avenue. The pedestrian bridge would measure 163 feet long and 13 feet wide and would provide a minimum clearance of 25-feet and 7-inches above Coldwater Canyon Avenue. Connection to the pedestrian bridge would be provided at Level 2 of the proposed Parking Structure and a bridge landing on the existing campus. Due to safety reasons and the danger of speeding vehicles currently traveling along Coldwater Canyon Avenue, no pedestrian access to the Project Site will be provided from the street. Pedestrians would access the Harvard-Westlake ~~School~~ Campus from the Parking Structure, and vice versa, only via the proposed pedestrian bridge crossing Coldwater Canyon Avenue. The bridge would be enclosed with a metal screen over Coldwater Canyon Avenue (between the elevator towers) to prevent objects ~~from being thrown~~ falling from the bridge. The bridge would be secured when the ~~school~~ Harvard-Westlake School is closed to prevent unauthorized access to the bridge.

Project Roadway Improvements

As noted above, provisions in the ~~Municipal Code~~ LAMC require the City to consider half-street dedications and improvements for roadways adjacent to development sites in accordance with adopted standards in the Transportation Element of the General Plan. Coldwater Canyon Avenue is designated as a Secondary Highway in the Transportation Element of the City ~~of Los Angeles~~ General Plan. The standard cross-section for a Secondary Highway is a 70-foot roadway on a 90-foot right-of-way (or a 35-foot half roadway on a 45-foot half right-of-way as measured from the centerline). The recently adopted MP 2035 identifies Coldwater Canyon as an Avenue II, which requires an 86-foot right-of-way and 56 foot roadway width.

Review of City as-built plans show an existing half roadway width of 24 feet and a half right-of-way width of 30 feet along the west side of Coldwater Canyon Avenue adjacent to the Project Site. ~~Therefore,~~ The Proposed Project includes the dedication on the west side of Coldwater Canyon Avenue along the school's property frontage by 15 feet to provide the City's previously adopted standard half right-of-way dimension for Secondary Highways as measured from the roadway centerline. This added dedication would exceed the requirements of MP 2035. On the southbound Coldwater Canyon Avenue approaches to the two driveways proposed to serve the Parking Structure, the widening of 11 feet is proposed to provide the minimum 35-foot half-street dimension; again this would exceed the requirements of the recently-adopted MP 2035. The roadway widening is proposed at the driveway approaches so as to allow for the striping of separate right-turn lanes for each intersection. Specifically, the widening will allow for a separate 300-foot long northbound left-turn lane and a 200-foot long southbound right-turn lane at the northerly-signalized intersection. A separate 100-foot southbound right-turn lane will also be provided at the southerly driveway. Two southbound through lanes on Coldwater Canyon Avenue, along the Project frontage, will also be installed to provide additional capacity for southbound traffic and minimize potential delay and loss of green-time to non-Harvard-Westlake School related vehicles on Coldwater Canyon Avenue (see **Figure 2-16, Traffic and Parking Improvements**).

In summary, the following Coldwater Canyon Avenue Project roadway improvement features are proposed in conjunction with the Project:

- Provide one northbound through lane and two southbound through lanes on Coldwater Canyon Avenue along the Project frontage (i.e., addition of one southbound through lane);

- At the intersection of Coldwater Canyon Avenue and the Proposed Project's northerly driveway opposite the relocated Harvard-Westlake driveway, provide:

    - Northbound: One left-turn lane, one through lane and one right-turn lane;
    - Southbound: One left-turn lane, two through lanes and one right-turn lane;
    - Eastbound: One left-turn lane and one optional through/right-turn lane; and
    - Westbound: One left-turn lane and one optional through/right-turn lane;

- Also at the intersection of Coldwater Canyon Avenue and the Proposed Project's northerly driveway opposite the relocated Harvard-Westlake School driveway, provide new traffic signal equipment, including left-turn phasing for northbound and southbound Coldwater Canyon Avenue traffic, and LADOT's ATSAC/ATCS equipment with connection to the Coldwater Canyon Avenue intersection at Ventura Boulevard;

- At the intersection of Coldwater Canyon Avenue and the Proposed Project's southerly driveway, provide:

    - Northbound: One through lane (i.e., no left-turns from northbound Coldwater Canyon Avenue to the southerly driveway will be permitted);
    - Southbound: Two through lanes and one right-turn lane; and
    - Eastbound: One optional left-turn/right-lane (controlled by a stop sign, with no left-turns permitted weekdays 7:00 a.m. – 7:00 p.m.).

Intersection Analysis

Methodology

In order to estimate the traffic impact characteristics of the proposed Parking Structure and associated roadway improvements, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. Trip generation was considered for both the period during construction of the Project, as well as following completion and occupancy of the Project. A trip generation forecast was prepared for the construction traffic related to the development of the Proposed Project. A trip generation forecast was not required for operation of the Parking Structure as the Project would not generate new vehicle trips to and from the site since there would be no changes in student enrollment. The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project traffic volumes, or in this case, the inbound and outbound construction traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of the construction traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area. In addition to the traffic assignment of Project construction traffic, a localized distribution shift and traffic assignment was conducted for school-related traffic volumes following completion of the Proposed Project. This traffic assignment is based on the shift of the majority of school-related traffic due to the Project features of the Proposed Project.

With the forecasting process complete and the construction and Project traffic assignments developed, the impact of the construction phases related to the Proposed Project as well as the Project features of the Proposed Project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using expected future traffic volumes without and with forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the Project's impacts identified.

The study intersections were evaluated using the Critical Movement Analysis (CMA) method of analysis that determines Volume-to-Capacity (*v/c*) ratios on a critical lane basis. The overall intersection *v/c* ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition). A description of the CMA method and corresponding Level of Service is provided in **Appendix G**.

The City of Los Angeles Automated Traffic Surveillance and Control (ATSAC) and Adaptive Traffic Control System (ATCS) provides computer control of traffic signals allowing automatic adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by accidents, the ability to centrally implement special purpose short term traffic timing changes in response to incidents, and the ability to quickly identify signal equipment malfunctions. ATCS provides real time control of traffic signals and includes additional loop detectors, closed-circuit television, an upgrade in the communications links, and a new generation of traffic control software. LADOT estimates that the ATSAC system reduces critical *v/*c ratios by seven percent (0.07). The ATCS upgrade further reduces the critical *v/c* ratios by three percent (0.03) for a total of 10 percent (0.10). Four of the five signalized study intersections (i.e., all of the study intersections except Coldwater Canyon Avenue/Harvard-Westlake Driveway) are currently equipped with the ATSAC/ATCS signal upgrades as part of the LADOT Victory ATSAC/ATCS system (System No. 6). Accordingly, the Level of Service calculations reflect a 0.10 adjustment for all analysis scenarios evaluated. As discussed above, in conjunction with the Project, the modified signalized intersection of Coldwater Canyon Avenue and the Harvard-Westlake Driveway (opposite the proposed northerly entrance to the Parking Structure) would be connected to the LADOT ATSAC/ATCS system. Thus, the 0.10 adjustments in the *v/c* ratios were incorporated at this intersection in conditions with Project-related traffic.

Construction Assumptions

It is assumed that excavation would occur on the Project Site during the first ~~year~~ 9 months of construction. It is also assumed that following completion of the initial phase of excavation, final grading and structure construction would begin on the site. It is estimated that excavation would require the removal of approximately 137,000 cubic yards (140,000 cubic yards has been conservatively assumed) ~~135,000~~ cubic yards of material from the Project ~~site~~ Site. It is anticipated that the equipment staging area and construction worker parking during the initial phases of construction grading, as well as after the start of construction, ~~will~~ would occur on the Project Site.

The following truck trips were estimated for each of the construction phases: 1) construction grading and material export: ~~30-50~~ 80 trucks per day (160 truck trips) and 2) final grading and structure construction: 50 ~~18-22~~ trucks per day (100 truck trips). In addition, the following construction worker estimates were estimated for each of the construction phases: 1) construction grading and material export: ~~16-20~~ up to 33 workers and 2) final grading and structure construction: up to 33~~-45~~ workers.

Based on the review and mapping of these construction phases, it has been determined that the peak construction activity and the corresponding highest number of vehicle/truck trips would occur during the construction grading and material export phase. Thus, the greatest potential for impact on the adjacent street system would occur during this peak condition. Since it was determined that impacts would not occur during this peak condition, the remaining construction phases were not analyzed in detail.

Construction Traffic Analysis

Construction Grading and Material Export Phase

Construction workers are expected to typically arrive at the Project Site before 7:00 a.m. and depart over several hours following the end of hauling at 4 p.m. For this analysis, it is conservatively estimated that approximately 60% of the workers (20 workers) would depart the Project Site during the 4:00 p.m. hour. ~~and most will depart before 4:00 p.m. or after 6:00 p.m. Thus, these construction work trips would occur outside of the AM peak hour of traffic on the local street system.~~ The peak hour of traffic at the study intersections in the vicinity of the Project Site begins between 7:15 and 8:00 a.m. during the morning commuter period, and begins between 4:45 p.m. and 5:00 p.m. during the afternoon commuter period. ~~However, in order to conduct a more conservative analysis, it was assumed that approximately ten percent of the total daily construction worker trips would occur during the commuter peak hours.~~

~~Approximately 20~~ Up to 33 construction workers ~~will~~ would be on-site during the construction grading and material export phase of the Proposed Project and would remain on-site throughout the day. It is also assumed that each construction worker would take their own vehicle to the construction site. Therefore, it is estimated that approximately 66 ~~40~~ vehicle trips per day (i.e., ~~20~~ 33 inbound trips and ~~20~~ 33 outbound trips) would be generated by the construction workers during the construction grading and material export phase at the Project Site. ~~During peak hours, it is estimated that ten percent of the workers would arrive during the AM peak hour (i.e., 2 workers) and ten percent of the workers would depart during the PM peak hour.~~

Heavy construction equipment would be located on-site during grading activities and would not travel to and from the Project Site on a daily basis. However, truck trips would be generated during the construction grading and material export period, so as to remove material (from excavation) from the Project Site. It is anticipated that with respect to these excavation (haul) trucks, trucks would be stationed at a designated location until called up by the on-site dispatcher for the export of excavated soils. From the queue, trucks would proceed directly to the jobsite. Furthermore, trucks are expected to exit the site onto Coldwater Canyon Avenue, proceed to the Southbound US-101 (Ventura) Freeway, and carry the export material to a receptor site located within 35 miles of the Project Site.

The Project applicant anticipates that trucks with a capacity of 20 cubic yards of material per truck carrying 14 cubic yards of material would be used during the export period. Hours of construction have been revised so that no hauling activities would occur during commuter peak hours (i.e. no construction trucks before 9 a.m. or after 4 p.m.).

During the peak of the construction grading and material export phase, up to ~~100~~ 160 truck trips per day (i.e., ~~50~~ 80 inbound trips and ~~50~~ 80 outbound trips) are anticipated. To conservatively estimate the equivalent number of vehicles associated with the trucks, a passenger car equivalency factor of 2.0 truck trips was utilized based on standard traffic engineering practice. The use of the 2.0 passenger car equivalent (PCE) in the forecast of construction-related traffic is very conservative ("worst case") as the *Highway Capacity Manual 2010*[1] recommends a lower PCE factor of 1.5 for roadways similar in design

[1] *Highway Capacity Manual 2010*, Transportation Research Board of the National Academy of Sciences, December 2010.

to Coldwater Canyon Avenue. Therefore, conservatively assuming ~~100~~ 160 truck trips, it is estimated that trucks would generate approximately 320 ~~200~~ passenger car equivalent vehicle trips (i.e., ~~100~~ 160 PCE inbound trips and ~~100~~ 160 PCE outbound trips) on a daily basis. ~~Of the 200 PCE~~ However, none of these 320 PCE daily vehicle trips~~, it is estimated that approximately 20 PCE vehicle trips (10 inbound trips and 10 outbound trips)~~ would occur during the weekday commuter AM or PM peak hours ~~and the weekday commuter PM peak hour, assuming ten percent of the daily truck trips occur during the peak hours~~.

Taken together, the construction worker vehicles and haul trucks are forecast to generate ~~240~~ 386 PCE vehicle trips per day (i.e., ~~120~~ 193 inbound trips and ~~120~~ 193 outbound trips) during the construction grading and material export phase at the site. ~~During the weekday commuter AM peak hour and the weekday commuter PM peak hour, it is estimated that approximately 22 PCE vehicle trips would be generated during each of these peak hours.~~

An updated analysis was undertaken to evaluate impacts during the peak truck traffic hours (9 a.m. to 10 a.m., 2 p.m. to 3 p.m., 3 p.m. to 4 p.m., 4 p.m. to 5 p.m. and Saturdays); up to 24 PCE could occur during the AM truck peak hour (9 a.m. to 10 a.m.) and 48 PCE during the PM peak truck hour (2 p.m. to 3 p.m.). No trips would occur during the AM peak commuter hour (7:15 a.m. to 8:15 a.m.); up to 20 PCE could occur during the PM peak commuter hour (4:15 p.m. to 5:15 p.m.).

~~Final Grading and Structure Construction Phase~~

~~As mentioned above, construction workers are expected to typically arrive at the Project Site before 7:00 AM and most depart before 4:00 p.m. or after 6:00 p.m. Thus, these construction work trips would occur outside of the peak hour of traffic on the local street system. However, in order to conduct a more conservative analysis, it was assumed that approximately ten percent of the total daily construction worker trips would occur during the commuter peak hours.~~

~~Based on information received from the Applicant, it is anticipated that approximately 45 construction workers would be on-site during the final grading and structure construction phase of the Proposed Project and would remain on-site throughout the day. It is also assumed that each construction worker would take their own vehicle to the construction site. Therefore, it is estimated that approximately 90 vehicle trips per day (i.e. 45 inbound trips and 45 outbound trips) would be generated by the construction workers during the final grading and structure construction phase at the Project Site. During peak hours, it is estimated that ten percent of the workers would arrive during the a.m. peak hour (i.e., 5 workers) and ten percent of the workers would depart during the p.m. peak hour.~~

~~In addition to construction worker vehicles, additional trips may be generated by miscellaneous trucks traveling to and from the Project Site. These trucks may consist of larger vehicles delivering equipment and/or construction materials to the Project Site, or smaller pick-up trucks or four-wheel drive vehicles used by construction supervisors and/or City inspectors. During peak construction phases, it is estimated that approximately 44 trips per day would be made by miscellaneous trucks. To conservatively estimate the equivalent number of vehicles associated with the trucks, a passenger car equivalency factor of 2.0 truck trips was utilized based on standard traffic engineering practice. As previously noted, the use of the 2.0 passenger car equivalent (PCE) in the forecast of construction-related traffic is very conservative ("worst case") as the *Highway Capacity Manual 2010* recommends a lower PCE factor of 1.5 for roadways similar in design to Coldwater Canyon Avenue. Therefore, conservatively assuming 44 daily truck trips, it is estimated that trucks would generate approximately 88 passenger car equivalent vehicle trips (i.e., 44 PCE inbound trips and 44 PCE outbound trips) on a daily basis. Of the 88 PCE daily vehicle trips, it is estimated that approximately 8 PCE vehicle trips (4 inbound trips and 4 outbound trips) would occur during the weekday commuter AM peak hour and the weekday commuter PM peak hour, assuming ten percent of the daily truck trips occur during the peak hours.~~

~~Taken together, the construction worker vehicles and miscellaneous trucks are forecast to generate 178 PCE vehicle trips per day (i.e., 89 inbound trips and 89 outbound trips) during the final grading and structure construction phase at the site. During the weekday commuter AM peak hour and the weekday commuter PM peak hour, it is estimated that approximately 13 PCE vehicle trips would be generated during each of these peak hours.~~

The updated construction trip generation forecasts for both the construction grading/material export and final grading/structure construction phases of the Proposed Project are presented in **Appendix G2**. Activities related to the construction grading and material export phase would generate a higher number of PCE vehicle trips as compared to the final ~~construction~~ grading and structure construction phase. Thus, the greatest potential for impact on the adjacent street system would occur during the construction grading and material export phase.

Construction Traffic Distribution

Construction traffic was assigned to the local roadway system based on a traffic distribution pattern that reflects existing traffic movements, characteristics of the surrounding roadway system, and nearby employment and residential areas. Construction traffic volumes both entering and exiting the Project Site have been distributed and assigned to the adjacent street system based on the following considerations:

- The Project Site's proximity to major traffic corridors (i.e. U.S. 101 Freeway, Coldwater Canyon Avenue, Ventura Boulevard, etc.);
- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;
- Existing intersection traffic volumes;
- Ingress/egress availability at the Project Site during all construction phases of the Proposed Project;
- The location of existing and proposed parking areas for both construction machinery and construction worker vehicles;
- The location of potential haul sites; and
- Input from LADOT staff

The construction traffic distribution percentages at the study intersections are illustrated in **Appendix G** (*Figure 8-1*). The forecast weekday commuter AM and PM peak hour construction traffic volumes at the study intersections associated with the Proposed Project are displayed in **Appendix G.2** ~~(Figure 8-2)~~. The traffic volume assignments reflect the traffic distribution characteristics and the construction traffic generation forecast.

Construction Traffic Intersection Analysis

Pursuant to LADOT's traffic study guidelines, Level of Service calculations have been prepared for the following scenarios for the study intersections to evaluate the traffic effects related to construction of the Project:

(a) Existing (2012) conditions.
(b) Condition (a) with Project construction phase.
(c) Condition (b) with implementation of any Project construction mitigation measures (none are required for the Project).

(d) Condition (a) plus two percent (2.0%) annual ambient traffic growth through year ~~2016~~ 2019 and with completion and occupancy of the related projects (i.e., future cumulative without project).

(e) Condition (d) with Project construction phase.

(f) Condition (e) with implementation of any project construction mitigation measures (none are required for the Project).

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections. The construction traffic impact analysis prepared for the study intersections using the CMA methodology and application of the City ~~of Los Angeles~~ significant impact criteria is summarized in **Table 3.8-4**. The calculation worksheets for the construction traffic analyses using the CMA methodology are contained in **Appendix G**.

Existing Conditions. As indicated in **Table 3.8-5**, four of the five study intersections are presently operating at LOS D or better during the weekday commuter a.m. and p.m. peak hours under existing conditions. The following study intersection is currently operating at LOS E during the peak hour as shown below under existing conditions:

- Int. No. 5: Coldwater Canyon Avenue/ Harvard-Westlake Driveway — PM Peak Hour: v/c= ~~0.951~~ 0.969, LOS E

The existing traffic volumes at the study intersections during the weekday commuter a.m. and p.m. peak hours are shown in the Traffic Study in **Appendix G** (*Figures 6-1* and *6-2* respectively).

Existing With Construction Traffic. As indicated in **Table 3.8-5**, application of the City's threshold criteria to the "Existing With Construction" scenario indicates that the construction phase is not expected to create significant impacts at the five study intersections. Incremental, but not significant, impacts are noted at the study intersections. ~~The existing with construction traffic volumes at the study intersections during the weekday commuter AM and PM peak hours are illustrated in the Traffic Study in **Appendix G** (*Figures 10–1* and *10–2*, respectively).~~

Future Cumulative without Project Construction Traffic Conditions. The future cumulative without ~~project~~ Project conditions were forecast based on the addition of traffic generated by the ~~plus~~ completion and occupancy of related projects, including in the updated analysis redevelopment of Sportsmen's Lodge (see **Appendix G2**), as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at all of the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in **Table 3.8-7**. As presented in **Table 3.8-5**, construction of the Project would not create a significant impact at any study intersection under future conditions. As previously mentioned, the analysis conservatively uses the 2011 traffic count as a baseline even though the updated 2015 count indicates a lower volume of traffic. ~~two of the five study intersections are expected to continue operating at LOS D or better during the weekday commuter AM and PM peak hours with the addition of growth in ambient traffic and related project traffic under the future cumulative baseline conditions (No. 1, Coldwater Canyon Avenue/US-101 Freeway NB ramps, No. 2, Coldwater Canyon Avenue/US-101 Freeway SB Ramps). The following study intersections are expected to operate at LOS E or F during the peak hours shown below with the addition of ambient traffic and related project traffic:~~

~~• Int. No. 3: Coldwater Canyon Avenue/ Moorpark Street PM Peak Hour: *v/c*=0.982, LOS E~~

~~• Int. No. 4: Coldwater Canyon Avenue/ Ventura Boulevard PM Peak Hour: *v/c*=0.984, LOS E~~

~~• Int. No. 5: Coldwater Canyon Avenue/ Harvard-Westlake Driveway PM Peak Hour: *v/c*=1.040, LOS F~~

~~TABLE 3.8-5: CONSTRUCTION TRAFFIC IMPACT (AM AND PM PEAK HOURS)~~														
No.	~~**Intersection**~~	~~**Peak Hour**~~	~~**Year 2012 Existing**~~		~~**Year 2012 Existing with Construction Traffic**~~		~~**V/C Change**~~	~~**Sig. Impact ?**~~	~~**Year 2016 Future**~~		~~**Year 2016 Future With Construction**~~		~~**V/C Change**~~	**Sig. Impact ?**
			~~**V/C**~~	~~**LOS**~~	~~**V/C**~~	~~**LOS**~~			~~**V/C**~~	~~**LOS**~~	~~**V/C**~~	~~**LOS**~~		
1	~~Coldwater Canyon Avenue/ US-101 Freeway NB Ramps~~	~~AM~~	~~0.504~~	~~A~~	~~0.506~~	~~A~~	~~0.002~~	~~NO~~	~~0.589~~	~~A~~	~~0.592~~	~~A~~	~~0.003~~	NO
		~~PM~~	~~0.492~~	~~A~~	~~0.494~~	~~A~~	~~0.002~~	~~NO~~	~~0.552~~	~~A~~	~~0.554~~	~~A~~	~~0.002~~	NO
2	~~Coldwater Canyon Avenue/ US-101 Freeway SB Ramps~~	~~AM~~	~~0.562~~	~~A~~	~~0.569~~	~~A~~	~~0.007~~	~~NO~~	~~0.628~~	~~B~~	~~0.635~~	~~B~~	~~0.007~~	NO
		~~PM~~	~~0.576~~	~~A~~	~~0.579~~	~~A~~	~~0.003~~	~~NO~~	~~0.645~~	~~B~~	~~0.648~~	~~B~~	~~0.003~~	NO
3	~~Coldwater Canyon Avenue/ Moorpark Street~~	~~AM~~	~~0.689~~	~~B~~	~~0.692~~	~~B~~	~~0.003~~	~~NO~~	~~0.767~~	~~C~~	~~0.770~~	~~C~~	~~0.003~~	NO
		~~PM~~	~~0.880~~	~~D~~	~~0.884~~	~~D~~	~~0.004~~	~~NO~~	~~0.982~~	~~E~~	~~0.986~~	~~E~~	~~0.004~~	NO
4	~~Coldwater Canyon Avenue/ Ventura Boulevard~~	~~AM~~	~~0.776~~	~~C~~	~~0.780~~	~~C~~	~~0.004~~	~~NO~~	~~0.874~~	~~D~~	~~0.878~~	~~D~~	~~0.004~~	NO
		~~PM~~	~~0.877~~	~~D~~	~~0.882~~	~~D~~	~~0.005~~	~~NO~~	~~0.984~~	~~E~~	~~0.988~~	~~E~~	~~0.004~~	NO
5	~~Coldwater Canyon Avenue/ Harvard-Westlake Driveway~~	~~AM~~	~~0.761~~	~~C~~	~~0.776~~	~~C~~	~~0.015~~	~~NO~~	~~0.836~~	~~D~~	~~0.851~~	~~D~~	~~0.015~~	NO
		~~PM~~	~~0.951~~	~~E~~	~~0.959~~	~~E~~	~~0.008~~	~~NO~~	~~1.040~~	~~F~~	~~1.048~~	~~F~~	~~0.008~~	NO

~~SOURCE: LLG Traffic Engineers, 2012~~

TABLE 3.8-5: CONSTRUCTION TRAFFIC IMPACT (AM AND PM PEAK CONSTRUCTION TRAFFIC HOURS)															
No.	Intersection	Peak Hour	Year 2012 Existing		Year 2012 Existing with Construction Traffic		V/C Change	Sig. Impact?	Year 2019 Future		Year 2019 Future With Construction		V/C Change	Sig. Impact ?
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	Coldwater Canyon Avenue/ US-101 Freeway NB Ramps	AM	0.411	A	0.414	A	0.003	NO	0.527	A	0.529	A	0.002	NO
		2PM	0.536	A	0.542	A	0.006	NO	0.656	B	0.661	B	0.005	NO
		3PM	0.548	A	0.551	A	0.003	NO	0.670	B	0.673	B	0.003	NO
		4 PM	0.515	A	0.520	A	0.005	NO	0.631	B	0.635	B	0.004	NO
		SAT	0.453	A	0.460	A	0.007	NO	0.522	A	0.530	A	0.008	NO
2	Coldwater Canyon Avenue/ US-101 Freeway SB Ramps	AM	0.431	A	0.439	A	0.008	NO	0.530	A	0.539	A	0.009	NO
		2PM	0.546	A	0.551	A	0.005	NO	0.671	B	0.676	B	0.005	NO
		3PM	0.579	A	0.582	A	0.003	NO	0.709	C	0.712	C	0.003	NO
		4 PM	0.544	A	0.547	A	0.003	NO	0.668	B	0.671	B	0.003	NO
		SAT	0.455	A	0.461	A	0.006	NO	0.530	A	0.536	A	0.006	NO
3	Coldwater Canyon Avenue/ Moorpark Street	AM	0.573	A	0.577	A	0.004	NO	0.701	C	0.705	C	0.004	NO
		2PM	0.664	B	0.672	B	0.008	NO	0.813	D	0.821	D	0.008	NO
		3 PM	0.821	D	0.825	D	0.004	NO	0.993	E	0.997	E	0.004	NO
		4 PM	0.851	D	0.856	D	0.005	NO	1.029	F	1.033	F	0.004	NO
		SAT	0.593	A	0.602	B	0.009	NO	0.685	B	0.695	B	0.010	NO
4	Coldwater Canyon Avenue/ Ventura Boulevard	AM	0.731	C	0.735	C	0.004	NO	0.886	D	0.891	D	0.005	NO
		2PM	0.749	C	0.758	C	0.009	NO	0.923	E	0.932	E	0.009	NO
		3PM	0.872	D	0.876	D	0.004	NO	1.060	F	1.064	F	0.004	NO
		4 PM	0.885	D	0.891	D	0.006	NO	1.073	F	1.078	F	0.005	NO
		SAT	0.711	C	0.721	C	0.010	NO	0.802	D	0.812	D	0.010	NO
5	Coldwater Canyon Avenue/ Harvard-Westlake Driveway	AM	0.683	B	0.699	B	0.016	NO	0.802	D	0.818	D	0.016	NO
		2PM	0.745	C	0.761	C	0.016	NO	0.873	D	0.889	D	0.016	NO
		3PM	0.911	E	0.919	E	0.008	NO	1.063	F	1.071	F	0.008	NO
		4 PM	0.969	E	0.978	E	0.009	NO	1.130	F	1.139	F	0.009	NO
		SAT	0.505	A	0.524	A	0.019	NO	0.565	A	0.583	A	0.018	NO
SOURCE: LLG Traffic Engineers, 2015														

The future cumulative without Project (existing, ambient growth, and related projects) traffic volumes at the study intersections during the weekday commuter AM and PM peak hours are ~~presented~~ provided in **Appendix G2** ~~(*Figures 10–3* and *10–4*, respectively)~~.

Future Cumulative with Project Construction Traffic Conditions. As shown in Table 3.8-5, application of the City's threshold criteria to the "Future With Construction" scenario indicates that the Proposed Project is not expected to create significant impacts at the five study intersections. Incremental, but not significant, impacts are noted at the study intersections ~~and two of the five study intersections are expected to continue operating at LOS D or better during the weekday commuter AM and PM peak hours with the addition of growth in ambient traffic, related project traffic, and construction traffic~~. The future cumulative with construction (existing, ambient growth, related projects, and construction) traffic volumes at the study intersections during the weekday commuter AM and PM peak hours are provided ~~illustrated~~ in **Appendix G.2**~~, (*Figures 10-5* and *10–6*, respectively)~~.

Project Operation Traffic Analysis

The Proposed Project consists of the construction of a Parking Structure with an auxiliary ~~athletic~~ practice field and a pedestrian bridge connecting the new Parking Structure to the Harvard-Westlake School. No increase in student enrollment or faculty is proposed as part of the Project. Therefore, the Project will not generate new vehicle trips to the study area. Some localized shifts in existing trips are expected, which are described in a following section.

Project-Related Localized Distribution Shift and Assignment

The peak hour traffic volumes that would be anticipated to enter and exit the Project Parking Structure were forecast based on the existing traffic counts conducted at all of the school driveways during the school peak hours. In conducting the localized Project trip distribution shift it was assumed that vehicles approaching the site would continue to do so in a manner similar to existing conditions (e.g., a vehicle that currently approaches the site from the north and turns left from Coldwater Canyon Avenue into the Harvard-Westlake School would in the future turn right into the proposed Parking Structure). As previously noted, the proposed Parking Structure is intended to accommodate parking for all students (whether currently parking on the Campus or on-street) as well as parking for some faculty, staff and visitors. Student drop-offs and pick-ups will continue to be accommodated on east side of Coldwater Canyon Avenue; no student drop-offs and pick-ups will be permitted within the proposed Parking Structure or on Coldwater Canyon Avenue. Additionally, student drop-offs and pick-ups related to the Harvard-Westlake school buses would be shifted from Coldwater Canyon Avenue to occur in the existing Southern Parking Lot (see **Figure 3.8-1 Existing Parking and Drop Off Zones**).

Accordingly, the vehicular turning movement volumes at the northerly Parking Structure driveway were forecast based on the conservative assumption that during the school AM peak hour, nearly all of the existing school-related vehicles associated with student parking, as well as some faculty/staff parkers either turning into the Harvard-Westlake School or utilizing on-street parking on Coldwater Canyon Avenue or the adjacent residential neighborhood would instead utilize the proposed northerly driveway into the Parking Structure (i.e. no vehicles would turn into the Parking Structure's southerly driveway). As for the PM peak hour, it was assumed that all vehicles exiting the Parking Structure onto northbound Coldwater Canyon Avenue would do so from the northerly Parking Structure driveway. For vehicles exiting the structure onto southbound Coldwater Canyon Avenue, it was assumed that the majority of vehicles (i.e., approximately 75 percent) would exit the Parking Structure from the southerly Parking Structure driveway and that the remaining 25 percent of southbound vehicles would exit the Parking Structure from the northerly Parking Structure driveway.

There were several factors considered in preparing the localized Project trip distribution shift. First, as previously noted, student drop-off/pick-up at the school will continue to take place on the Campus east of Coldwater Canyon Avenue via the North Entrance and Main Entrance driveways and will not be moved to the proposed Parking Structure. Thus, no distribution shifts were made for vehicles assumed to be dropping-off/picking-up students during both the AM and PM school peak hours.

Second, parking will continue to be provided in lots on the Campus on the east side of Coldwater Canyon Avenue. However, student parking currently provided in the on-campus Southern Parking Lot located immediately south of Hacienda Drive, as well as student parking currently provided in the off-site parking lot located immediately north of Avenida del Sol (St. Michael's Church Lot) is assumed to be shifted to the new Parking Structure following Project build-out. Existing parking areas are shown in **Figure 3.8-1**. Access to the existing Campus parking lots is currently provided via the two Harvard-Westlake driveways and ~~the~~ Hacienda Drive driveway. Access to the Southern Parking Lot is provided solely via the Hacienda Drive driveway. Based on the total parking supply of existing spaces to remain in parking lots on the Campus on east side of Coldwater Canyon Avenue, plus the proposed spaces in the future Parking Structure, it was estimated that approximately 20 percent of the existing turning movements into the existing campus parking lots would continue to utilize the north and main entrances and Hacienda Drive driveway to access the campus parking lots on the east side of Coldwater Canyon Avenue. The remaining 80 percent of vehicles at said driveways were shifted to the future northerly Parking Structure driveway.

As previously mentioned, the Southern Parking Lot located immediately south of Hacienda Drive would no longer be available for daily student parking following Project build-out. Instead, the Southern Parking Lot will be utilized for school bus drop-off/pick-up and school bus turnaround and will serve as overflow parking for school-related special events. As a result, school bus activities would no longer be taking place along the east side of Coldwater Canyon Avenue. Based on information from the Applicant, it was assumed that two buses arrive at the campus from the north (i.e., traveling southbound on Coldwater Canyon from the U.S. 101 Freeway) and six buses arrive at the campus from the south (i.e., traveling northbound on Coldwater Canyon Avenue). Hence, bus traffic was shifted accordingly to ~~the~~ Hacienda Drive ~~driveway~~ from Coldwater Canyon Avenue.

Lastly, it should be noted that on-street parking currently permitted along the east side of Coldwater Canyon Avenue between the North Entrance driveway and ~~the~~ Hacienda Drive ~~driveway~~ would be removed as part of the Proposed Project. Thus, vehicles that are currently permitted to park on-street on Coldwater Canyon Avenue were shifted accordingly to instead park in the proposed Parking Structure. In addition, it was noted during field observations that some students park in the adjacent residential neighborhood located north of the existing Harvard-Westlake Campus during school hours. To account for this, parking utilization counts were conducted in these adjacent residential neighborhoods to determine the approximate number of school-related vehicles that currently park there. As seen in **Appendix G** (*Table 6-3),* on-street parking in the adjacent residential neighborhood increased from 41 parked vehicles at 7:00 a.m. to 69 parked vehicles at 9:00 a.m. Assuming the increased parking demand is related to school-related parkers, this would be approximately 28 vehicles (these 28 vehicles would easily be accommodated within the proposed increased parking supply of 507 spaces during regular days and 610 spaces during special events – see discussion of parking below).[2] Therefore, based on the total amount of on-street vehicles, it was assumed that these vehicles parked in the adjacent residential neighborhood were school-related vehicles and were shifted accordingly to instead park in the proposed Parking Structure.

[2] The enrollment at Harvard-Westlake School is maintained at approximately 900 students per year – 300 students in each grade – 10th, 11th and 12th, enrollment fluctuates due to a variety of factors.

The shifted net Project traffic volumes at the study intersections for the weekday school AM and PM peak hours are displayed in **Appendix G** (*Figures 8-3 and 8-4*, *respectively*). The breakdown of the shifts of Project traffic volumes by specific location and/or population can be found in **Appendix G**.

Project Occupancy Traffic Impact Analysis Scenarios

Pursuant to LADOT's traffic study guidelines, Level of Service calculations have been prepared for the following scenarios for the study intersection to evaluate the traffic effects related to occupancy of the Project:

- Condition (b) with implementation of any Project mitigation measures (none are required for the Project).
- Condition (a) plus two percent (2.0%) annual ambient traffic growth through year 2019 ~~2016~~ and with completion and occupancy of the related projects (i.e., future cumulative without Project).
- Condition (d) with completion and occupancy of the Project.
- Condition (e) with implementation of any Project mitigation measures (none are required for the Project.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the study intersections.

The Project occupancy traffic impact analysis prepared for the study intersection using the CMA methodology and application of the City ~~of Los Angeles~~ significant impact criteria is summarized in **Table ~~3.7-5~~ 3.8-6**. The calculation worksheets for the Project occupancy traffic analyses using the CMA methodology are contained in **Appendix G.2**.

Existing Conditions. As indicated in ~~column~~ **Table ~~3.7-6~~ 3.8-6**, the Coldwater Canyon Avenue/Harvard-Westlake Driveway study intersection is presently operating at LOS C during the weekday school AM peak hour and LOS E during the weekday school PM peak hour under existing conditions.

The existing traffic volumes at the study intersections during the weekday school AM and PM peak hours are displayed in **Appendix G** (*Figure 6-3)*.

Existing with Project Occupancy. As described above, in conjunction with the proposed Parking Structure Project, Harvard-Westlake will improve the Coldwater Canyon Avenue/Harvard-Westlake Driveway intersection. These improvements include: 1) Providing a southbound through lane on Coldwater Canyon Avenue adjacent to the Project Site; 2) Providing separate left-turn and ~~a~~ right-turn lanes at the intersection to facilitate traffic entering the Parking Structure; 3) Enhancing the traffic signal to provide separate left-turn phasing for northbound and southbound traffic, plus LADOT's ATSAC/ATCS equipment; and 4) Relocating the intersection approximately 34 feet to the south of its current location along Coldwater Canyon Avenue in order to align with the proposed northerly Parking Structure driveway. As indicated in **Table 3.8-6**, application of the City's threshold criteria to the "Existing With Project Occupancy" scenario indicates that the Project occupancy – including implementation of the improvements outlined above - is not expected to create significant impacts at the study intersection. Rather, the Project and these improvements will cause a substantial decrease in the calculated *v/c* ratio at the study intersection during the school AM hour, as well as an incremental decrease in the calculated *v/c* ratio during the PM peak hour, primarily related to the increased capacity provided at the intersection in conjunction with the Project. The existing with Project occupancy traffic volumes at the study intersections during the weekday school AM and PM peak hours are illustrated in **Appendix G** (*Figure 11–1*).

Future without Project Conditions. The future cumulative without Project conditions were forecast (updated to 2019 since publication of the Draft EIR, see **Appendix G.2**) based on the addition of traffic generated by the~~ plus~~ completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The *v/c* ratios at the study intersection are incrementally increased with the addition of ambient traffic and traffic generated by the related projects listed in **Table ~~3.8-7~~** 3.8-8, including consideration of the redevelopment of Sportsmen's Lodge. As presented in ~~column~~ **Table 3.8-6**, the Coldwater Canyon Avenue/Harvard-Westlake Driveway intersection is forecast to operate at LOS D during the school AM peak hour, and LOS ~~E~~ F during the school PM peak hour with the addition of ambient traffic and related project traffic under the future cumulative baseline conditions. The future cumulative baseline (existing, ambient growth, and related projects) traffic volumes at the study intersections during the weekday school AM and PM peak hours are presented in **Appendix G.2** ~~(*Figure 11-2*)~~.

Future Cumulative with Project. As shown in **Table 3.8-6**, application of the City's threshold criteria to the "With Project Occupancy" scenario indicates that the Proposed Project occupancy including implementation of the improvements outlined above would not create significant impacts at the study intersection. Rather, the Project and these improvements will cause a substantial decrease in the calculated *v/c* ratio at the study intersection during the school AM hour, as well as an incremental decrease in the calculated *v/c* ratio during the PM peak hour, primarily related to the increased capacity provided at the intersection in conjunction with the Project.

The future cumulative with Project occupancy (existing, ambient growth, related projects, and Project occupancy) traffic volumes at the study intersections during the weekday school AM and PM peak hours are ~~illustrated~~ provided in **Appendix G.2** ~~(Figure 11-3)~~.

Adequacy of Proposed Turn Lanes

The Project-related improvements on Coldwater Canyon Avenue at the Harvard-Westlake School main driveway to serve the Proposed Parking Structure include a new northbound left-turn and a new southbound right-turn lane. As currently proposed, the northbound left-turn lane on Coldwater Canyon Avenue is proposed to be approximately 300 feet in length while the proposed southbound right-turn lanes are proposed to be 200 feet (for the northern entrance) and 100 feet (for the southern entrance) in length. The final design of the improvements would be determined by the City (e.g., the Bureau of Engineering and Department of Transportation).

Typically, the length of vehicle turn lanes is based on the forecast 95th percentile vehicle queue. That is, during the peak hours, the turn lane would accommodate vehicles queued in the lane 95% of the hour. The Highway Capacity Software (HCS) was used to calculate the forecast 95th percentile vehicle queue for the proposed northbound left-turn lane and southbound right-turn lane on Coldwater Canyon Avenue at the Main Driveway intersection during the AM and PM peak hours at Project build-out.[3] The HCS calculations are contained in **Appendix G.1** of the RDEIR (Appendix D-3 of the Traffic Report). As shown in in **Appendix G.1** of the RDEIR (Appendix D-3 of the Traffic Report), the HCS estimates the 95th vehicle queues for the respective turn lanes.

[3] For the purpose of assessing turn lane adequacy, it was assumed that all southbound cars would use the Project's northerly driveway and not the southerly driveway.

TABLE 3.8-6: PROJECT OPERATIONS TRAFFIC IMPACT

			Year 2012 Existing		2012 Existing w/ Project		V/C Change	Sig. Impact ?	Year ~~2016~~ 2019 w/o Project		Year ~~2016~~ 2019 w/ Project		V/C Change	Sig. Impact?
No.	Intersection	Peak Hr.	V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
5	Coldwater Canyon Avenue/ Harvard-Westlake Driveway	AM	0.761	C	0.377	A	-0.384	NO	~~0.836~~ 0.892	D	~~0.419~~ 0.449	A	~~-0.417~~ -0.443	NO
		PM	0.901	E	0.876	D	-0.025	NO	~~0.985~~ 1.051	F	~~0.967~~ 1.038	F	~~-0.018~~ -0.013	NO

P.M. peak hour analysis based on peak hour of traffic on Coldwater Canyon Avenue (2:45 p.m. to 3:45 p.m.) coinciding with student dismissal period at Harvard-Westlake School.
SOURCE: LLG, Traffic Engineers, ~~2012~~ 2015

Conservatively assuming that queued cars occupy 25 feet of roadway per vehicle, the following 95th percentile queue lengths are estimated:

- AM Peak Hour:
  - Northbound Left-Turn: 220 feet
  - Southbound Right-Turn: 57.5 feet
- PM Peak Hour:
  - Northbound Left-Turn: 0 feet
  - Southbound Right-Turn: 0 feet

In summary, the northbound left-turn and southbound right-turn vehicle turn lanes proposed for Coldwater Canyon Avenue at the Main Driveway intersection are calculated to adequately accommodate the Project turn volumes.

Congestion Management Plan

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

Intersections. As required by the 2010 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the *2010 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, 2010.

The following CMP intersection monitoring locations are located in the Project vicinity:

CMP Station	Intersection
Int. No. 74	Ventura Boulevard/Laurel Canyon Boulevard
Int. No. 76	Ventura Boulevard/Sepulveda Boulevard
Int. No. 78	Ventura Boulevard/Woodman Avenue

The CMP TIA guidelines require that intersection monitoring locations must be examined if the Proposed Project will add 50 or more trips during either the AM or PM weekday commuter peak hours. The Proposed Project will not add 50 or more trips during either the AM or PM weekday commuter peak hours (i.e., of adjacent street traffic) at the three CMP monitoring intersections in the Project vicinity, which is stated in the CMP manual as the threshold criteria for a traffic impact assessment. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

Freeways. The following CMP freeway monitoring location are located in the Project vicinity:

CMP Station	Location
No. 1038	101 Freeway at Coldwater Canyon Avenue
No. 1057	170 Freeway south of Sherman Way

The CMP TIA guidelines require that freeway monitoring locations must be examined if the Proposed Project will add 150 or more trips (in either direction) during either the AM or PM weekday commuter peak periods. The Proposed Project will not add 150 or more trips (in either direction) during either the AM or PM weekday commuter peak hours to CMP freeway monitoring locations which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

Transit Impact Review. As required by the 2010 CMP for Los Angeles County, a review has been made of the potential impacts of the construction of the Project on transit service. As discussed above, existing transit service is provided in the vicinity of the existing Harvard-Westlake Campus.

The construction trip generation, as shown in Appendix G, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation.

Pursuant to the CMP guidelines, the Proposed Project is forecast to generate demand for one transit trip during the commuter AM peak hour and one transit trip during the commuter PM peak hour. Over a 24-hour period, the Proposed Project is forecast to generate demand for ~~14~~ 19 daily transit trips. Therefore, the calculations are as follows:

- AM Peak Hour = ~~22~~ 24 × 1.4 × 0.035 = 1 Transit Trips
- PM Peak Hour = ~~22~~ 48 × 1.4 × 0.035 = ~~1~~ 2 Transit Trips
- Daily Trips = ~~240~~ 386 × 1.4 × 0.035 = ~~12~~ 19 Transit Trips

As shown in **Table 3.8-3**, five bus transit lines and routes are provided adjacent to or in close proximity the Project Site. These five transit lines provide services for an average of (i.e., average of the directional number of buses during the peak hours) generally 31 buses during the commuter AM peak hour and roughly 28 buses during the commuter PM peak hour. Therefore, based on the above calculated AM and PM peak hour trips, this would correspond on average to no more than one additional transit rider per bus.

It is anticipated that the existing transit service in the Project area would adequately accommodate the increase of Project construction-generated transit trips. Thus, given the low number of Project construction-generated transit trips per bus, no Project construction impacts on existing or future transit services in the Project area are expected to occur as a result of the construction of the Proposed Project.

Occupancy of the Proposed Project would not generate any new vehicle trips to and from the site. Accordingly, no changes to utilization of public transit services are anticipated as a result of occupancy of the Proposed Project.

Parking

578 parking spaces are currently required for the Harvard-Westlake School.[4] In addition, approximately 104 ~~121~~ off-site spaces (including approximately 64 ~~81~~ public, on-street parking spaces surrounding the school – see discussion below) are utilized in part by students;[5] **Figure 3.8-1** shows existing parking at the School.

As part of the Proposed Project, approximately ~~364~~ 347 spaces currently used by the Harvard-Westlake School would be removed from regular use, including a total of approximately 243 parking spaces

4 Per City of Los Angeles, Certificate of Occupancy for Building Permits 11010-20000-01949 and 11010-20001-01949.

5 This includes approximately 36 parking spaces on Coldwater Canyon Avenue (that were not used during the recent LADWP water line construction activity), approximately 40 parking spaces in the St. Michael's Church parking lot, and approximately 28 ~~45~~ parking spaces in the surrounding neighborhood.

removed from the Campus[6] and the approximately ~~121~~ 104 off-site spaces (including ~~81~~ 64 on-street, public spaces and 40 spaces in the St. Michael's church lot). The construction of the proposed Parking Structure would add 750 parking spaces. Thus, following the construction of the Proposed Project, 1,085 parking spaces would be provided on the Harvard-Westlake Campus for regular use and 1,188 for use during special events, as shown in **Table 3.8-7**.

TABLE 3.8-7: PROJECT PARKING

Parking Location	Existing Parking Supply	Regular School Days Proposed Parking Supply	Regular School Days Change	School Events Proposed Parking Supply	School Events Change
On-Campus	578	335	-243	438	-140
Parking Structure	0	750	+750	750	+750
Total	578	1,085	+507	1,188	+610

Following completion of the Project, the Southern Parking Lot would be primarily used for bus circulation, staging, and parking, but would continue to be striped for parking and available for occasional special events, such as graduation and homecoming.

In accordance with City of Los Angeles parking requirements, 578 parking spaces[7] are currently required for the existing Harvard-Westlake Campus. As no increase in student enrollment is proposed as part of the Proposed Project, Harvard-Westlake must continue to provide a minimum of 578 parking spaces. Current student enrollment is approximately 900 students with approximately 300 students in each grade (10th, 11th and 12th grades; enrollment fluctuates due to a variety of factors). There are currently approximately 185 faculty and staff employed by the school plus an additional approximately 50 vendors (e.g. technicians, kitchen aids, landscapers, etc.) on-site daily plus approximately 30 coaches are on campus daily (faculty and coaches teach/coach across grades and are not assigned specifically to one grade).

As part of the parking supply, the Project must provide a minimum of 15 handicap accessible spaces. This complies with the American with Disabilities Act requirements of a minimum of two percent (2%) of the number of parking spaces in the Parking Structure as handicap spaces, with one in every eight handicap spaces being van accessible.

In the above, the number of on-street spaces used by Harvard-Westlake is conservatively estimated at ~~81~~ 64, but Harvard-Westlake School may use more than this: on-street parking utilization counts were conducted for a selected number of residential street segments located north of the Harvard-Westlake Campus, as well as along Coldwater Canyon Avenue where some students are known to park during school hours. However, the count did not verify if all of the vehicles parked on-street during the survey were Harvard-Westlake students, faculty, or staff. Given the proximity of the vehicles to the school, all of these vehicles were assumed to be parked on these streets to access the campus. The number of occupied parking spaces was noted for each on-street parking segment during each observation period. (The parking accumulation surveys were conducted on Thursday, January 27, 2011 from 7:00 to 10:00 a.m. and from 2:00 to 6:00 p.m. A summary of the existing weekday on-street parking utilization counts is

6 This includes approximately 140 spaces from surface parking lots near the main entrance and along the main entrance driveway as a result of reconfiguration of the Main Entrance Driveway, and approximately 103 spaces from the Southern Parking Lot.

7 Certificate of Occupancy dated March 6, 2013

provided in **Appendix G**. This detailed summary of the existing weekday on-street parking counts provides the hourly parking utilization observed for each segment. As shown in **Appendix G** (*Table 6-3)*, the existing weekday peak parking demand for on-street parking near the Campus occurred at 9:00 a.m. when 109 vehicles were observed. No observation of parking during special events was undertaken.

CUMULATIVE IMPACTS

As shown in **Tables 3.8-5** and **3.8-6**, above, the Project would not result in a cumulatively considerable contribution to cumulative traffic conditions. The forecast of future without project conditions was prepared in accordance with procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provide two options for developing the future traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
> (B) A summary of projects contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reductions of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projects may be supplemented with additional information such as a regional modeling program. Any such document shall be referenced and made available to the public at a location specified by the lead agency."

Accordingly, this traffic analysis provides a conservative estimate of future without project traffic volumes as it incorporates both the "A" and "B" options outlined in the CEQA Guidelines for purposes of developing the forecast. A forecast of on-street traffic conditions without the Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Project can be evaluated within the context of the cumulative impact of all ongoing development. The list of related projects in the Project area is presented in **Table 3.8-8**. The location of the related projects is shown in **Figure 3.8-2.**

Traffic volumes anticipated from the related projects were calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual[8]. The related projects respective traffic generation for the weekday commuter AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in **Appendix G**. The distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are ~~displayed~~ provided in **Appendix G2** ~~(*Figures 7-2 and 7-3*, respectively)~~.

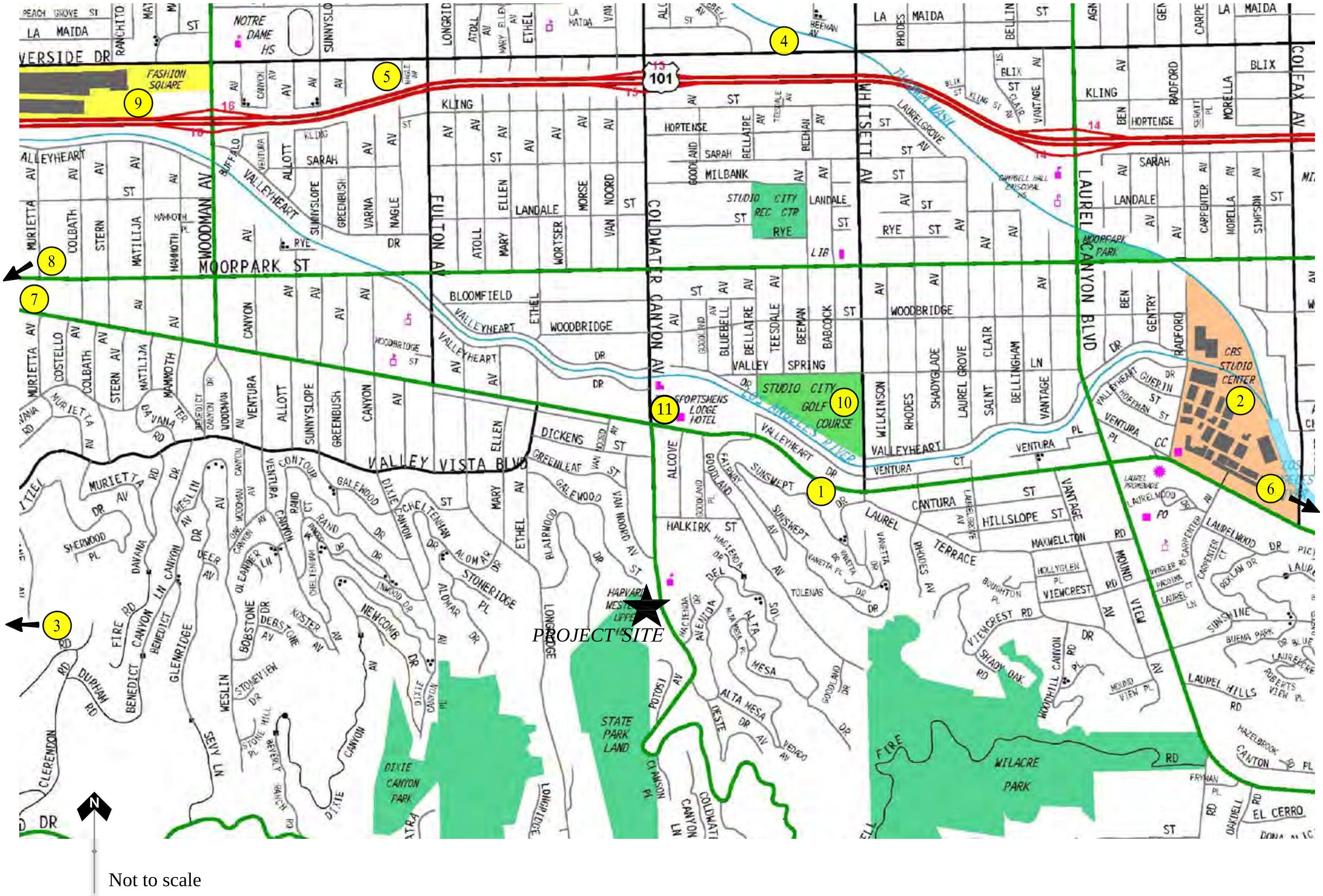
~~As previously noted,~~ The City's Department of Water and Power (LADWP) ~~is currently~~ recently installed~~ing~~ a new subsurface Trunk Line pipe (City Trunk Line South – Unit 5) on Coldwater Canyon Avenue between Moorpark Street and Avenida Del Sol (i.e., south of the Harvard-Westlake Campus). The DWP construction project ~~has~~ resulted in portions of the Coldwater Canyon Avenue pavement closed to traffic and/or street parking, occasionally including the segment adjacent to the ~~school~~ Campus.

8 *Trip Generation,* Institute of Transportation Engineers, 8th Edition, 2008.

TABLE 3.8-8: RELATED PROJECTS

Map No.	Project STATUS	Project Name Number Address Location	Address/Location	Land Use Data: Land Use	Size	
1	Proposed	VEN-2010-020	12548 Ventura Boulevard	Apartment	62	DU
				Retail	10,747	GLSF
				Other	1,925	GSF
				Existing Retail	(3,000)	GLSF
2	Proposed	CBS Radford Studios	4200 Radford Avenue	Master Plan Expansion	161,885	GSF
3	Proposed	Buckley School	3900 Stansbury Avenue	Private School (K-12)	80	Students
4	Under Construction	Sherman Village SFV-2006-130	12629 Riverside Drive	Condominium	260	DU
				TV production		
5	Approved	Merdinian Evangelical School SFV-2006-044	13330 Riverside Drive	Private High School	383	Seats
6	Inactive	VEN-2004-008	11617 Ventura Boulevard	Apartment	391	DU
				Less Existing Office	(7,793)	GSF
				Less Existing Retail	(12,663)	GLSF
7	Under Construction	Ralphs Supermarket VEN-2009-014	14049 Ventura Boulevard	Supermarket Expansion	27,389	GLSF
8	Under Construction	Camino Real Mixed-Use Project VEN-2004-005	14121 Ventura Boulevard	Condominium	88	DU
				Retail (Less 10% Pass-by)	6,000	GLSF
				Fast-Food without Drive-Through (Less 50% Pass-by)	3,500	GSF
9	Inactive	Westfield Sherman Oaks Fashion Square [1] SFV-2005-278	14006 Riverside Drive	Retail	220,000	GLSF
10	Proposed	Studio City Senior Living Center Project [2] SFV-2011-08	4141 Whitsett Avenue	Senior Housing	200	DU
				Golf Driving Range	21	Tees
				Golf Course	9	Holes
				Golf Driving Range	(24)	Tees
				Golf Course	(9)	Holes
				Tennis Courts	(16)	Courts
11.	Proposed	Sportsmen's Lodge Event Center VEN-10-005	12833 Ventura Boulevard	Quality Restaurant	17,514	GSF
				High-turnover restaurant	9,154	GSF
				Retail	35,101	GLSF
				Health club	30,000	GSF
				Les Banquet facility	(47,400)	GSF
				Less restaurant	(3,500)	GSF

SOURCE: City of Los Angeles Department of Transportation Related Projects List, ~~September 2013,~~ except as noted below.
[1] Traffic Impact, Parking, and Site Access Study, Westfield Fashion Square Expansion Project, LLG Engineers, August 2008.
[2] Traffic Impact Study for the Studio City Senior Living Center Project, LLG Engineers, February 2012.
[3] LADOT Determination letter for the Sportsmen's Lodge Event Center, dated March 18, 2014



Not to scale

SOURCE: Linscott, Law & Greenspan, 2012

Harvard-Westlake Parking Structure

Figure 3.8-2

Location of Related Projects

According to the ~~Los Angeles Department of Water and Power~~ DWP, construction of the Trunk Line pipe adjacent to the Development Site has been completed, although additional work south of the Development Site is still required; the dates for that work are not known at the present time. ~~is scheduled to be completed in late 2015~~. Harvard-Westlake School ~~has~~ indicated that construction of the proposed Parking Structure Project would not commence until elements of the DWP-related work on its Trunk Line project were ~~are~~ completed such that it would not impede the movement of Project-related construction traffic to and from the ~~Project~~ Development Site.

In order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 2.0 percent (2.0%) per year to the year ~~2016~~ 2019 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors provided in the ~~*2010 Congestion Management Program for Los Angeles County* (the "~~CMP manual~~")~~ and determined in consultation with LADOT staff. It is noted that based on review of the general traffic growth factors provided in the CMP manual for the San Fernando Valley area, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of less than 1.0% per year between the years 2010 and 2020. Thus, application of an annual 2.0% growth factor allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual's traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. The ambient growth date was also applied to the higher 2011 traffic counts rather than the lower 2015 counts. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor based on CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

REGULATORY COMPLIANCE MEASURE

RC-TR-1: Review and approval of a haul route will be required to be obtained from the City of Los Angeles Board of Building and Safety Commissioners. Additional conditions may be imposed as part of that process.

PROJECT DESIGN FEATURES

The following measure would ensure that construction traffic does not impact roadways in the Project Area:

PDF-TR-1: Truck trips, Monday through Friday, would occur as follows: 8:00 a.m. to 9:00 a.m. limited incidental deliveries (i.e., one or two for cement, supplies); 9:00 a.m. to 10:00 a.m. up to 6 trucks (12 truck trips); 10:00 a.m. to 2:00 p.m. up to 14 trucks per hour (28 truck trips per hour); 2:00 p.m. to 3:00 p.m. up to 12 trucks (24 truck trips); 3:00 p.m. to 4:00 p.m. up to 6 trucks (12 truck trips).

The following project design feature would encourage use of electric vehicles thereby reducing the carbon footprint of the school and would further encourage students and faculty with electric cars to park in the structure.

PDF-TR-2: The Parking Structure will include electric vehicle charging stations to encourage use of electric vehicles and encourage those with electric cars to park in the structure.

MITIGATION MEASURE

Construction

While Project construction traffic would incrementally impact local intersections, the impact would not rise to the level of significance and therefore no mitigation measures are required.

Operation

Project impacts would be beneficial therefore no mitigation measures are required. The Project includes required roadway dedications as well as the addition of a second southbound through lane adjacent to the Development Site.

The following Mitigation Measure would help ensure that student parkers use the Parking Structure as intended.

MM-TR-1: Harvard-Westlake will issue to all students, staff, and faculty car parking permits, which shall be required to be displayed on cars (stickers, rearview mirror hangers, or some other way to identify cars). Such stickers will allow neighbors and Harvard-Westlake School Administration a means of identifying any parking activity that continues in the neighborhood.

SIGNIFICANCE AFTER MITIGATION

Construction

Construction traffic impacts would be less than significant.

Operation

There would be no operational impacts from the Project. Coldwater Canyon Avenue at the Harvard-Westlake Driveway would operate at an improved Level of Service in the AM peak hour. The Project would improve through traffic flow adjacent to the Parking Structure during the morning commute period with a second southbound through lane adjacent to the structure; this would incrementally improve travel delay along Coldwater Canyon Avenue at the entrance to the school as compared to existing conditions.

Traffic turning into the new Parking Structure would not disrupt through traffic flow on northbound nor southbound Coldwater Canyon Avenue as a result of new separate left-turn and right-turn lanes at the Parking Structure entrance, as well as left-turn traffic signal phasing for northbound and southbound traffic, thereby improving safety and reducing potential conflicts for motorists on Coldwater Canyon Avenue. The traffic signal at the Harvard-Westlake entrance would operate at optimum efficiency based on the installation of LADOT's ATSAC/ATCS traffic signal equipment.

4.0 GENERAL IMPACT CATEGORIES

SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires that any significant impacts, including those that can be mitigated but not reduced to a less than significant level, be described and their implications discussed in an EIR. Impacts of the Project are analyzed and identified throughout Section 3, Environmental Setting, Impacts and Mitigation Measures, of this ~~Draft~~ RDEIR; impacts are summarized in the Executive Summary. As discussed therein, project-level significant unavoidable impacts that could occur under the Proposed Project are anticipated to be as follows:

- ~~Impacts related to localized construction emissions would remain significant at six sensitive receptors (homes on the west side of Coldwater Canyon Avenue, adjacent to the construction site), even after the implementation of mitigation measures. The majority of localized impacts related to PM_{10} emissions during grading and excavation activity would be related to fugitive dust emissions (up to 80 percent). The Proposed Project would be required to implement SCAQMD Rule 403 to control fugitive dust emissions (**RC-AQ-1**). Rule 403 requires intensive dust prevention control measures and represents the greatest degree that fugitive dust can be controlled at a construction site. Implementation of Rule 403 and Mitigation Measures **MM-AQ1** though **MM-AQ5** would reduce fugitive dust emissions to the greatest extent feasible but would not reduce PM_{10} emissions to below the SCAQMD significance thresholds. Therefore, the Proposed Project would result in a short-term significant and unavoidable impact related to localized PM_{10} construction emissions.~~

- Impacts to oak-walnut woodlands could result in Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that forage on the Development Site on occasion.

- Mitigation measures would reduce construction noise levels but not below a level of significance during the most impactful phase of construction (excavation, hauling, soil nailing and placing shotcrete). Mitigated construction noise levels would exceed the 5-dBA significance threshold at about ~~36~~ 51 sensitive receptors (homes on the east and west side of Coldwater Canyon Avenue in the vicinity of the Development Site and ~~the~~ St. Michael's Church (which includes Sunnyside Preschool).

Despite these significant adverse impacts the Project is being proposed in order to address a number of traffic and parking issues in the vicinity of Harvard-Westlake School and the need for a practice field to increase recreational activities on Campus (see the Objectives sub-section of the Project Description chapter).

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(c) requires that an EIR analyze significant irreversible environmental changes that would be caused by ~~the Proposed~~ a project. This includes the use of nonrenewable resources during construction and operation of a project to such a degree that the use of the resources thereafter is unlikely. It also includes significant and irreversible environmental changes that could result from environmental accidents associated with ~~the~~ a project.

Implementation of the Proposed Project would include the construction of a Parking Structure that ~~that~~ would result in a commitment of limited, slowly renewable, and nonrenewable resources. Such resources would include certain types of lumber and other forest products; metals such as steel, copper, and lead; aggregate materials used in concrete and asphalt (e.g., stone, gravel, and sand); and other construction materials such as plastic. In addition, fossil fuels used in construction vehicles would also be consumed during construction of the Project.

Implementation of the Proposed Project could facilitate the continued consumption of limited, nonrenewable, and slowly renewable resources. These resources would include electricity, petroleum-based fuels, fossil fuels, and water. However, even without the Project, students, faculty, staff and visitors would still travel to the Project area. The Parking Structure would not ~~generate any~~ result in any additional trips once completed. Operation of the Project would occur in accordance with Title 24, Part 6 of the California Code of Regulation, which sets forth conservation practices that would limit the amount of energy consumed by the Project. In addition, the Project would be subject to energy efficient planning and construction guidelines set forth by the City ~~of Los Angeles~~. Nonetheless, the use of such resources would still continue to represent a long-term, irreversible commitment of these resources. However, this resource consumption would be consistent with growth and anticipated change in the Los Angeles region.

GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss growth-inducing impacts of a ~~Proposed Project~~ project. Growth-inducing impacts are ways in which a project could "…foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." This includes projects that would remove obstacles to growth. However, as stated in the CEQA Guidelines (Section 15126.2[d]), "it must not be assumed that growth in any areas is necessarily beneficial, detrimental, or of little significance to the environment."

The Proposed Project would provide parking for an existing use. It would not induce population growth in the area. Parking does not determine enrollment at the Harvard-Westlake School. Rather the capacity of the ~~school~~ Harvard-Westlake School is determined by the number and size of classrooms, students per class, hours of operation and other factors. Enrollment at the Harvard-Westlake School is not anticipated to increase in the foreseeable future as a result of the project. Enrollment is approximately 900 students with approximately 300 students in each of the three high school grades – 10^{th}, 11^{th} and 12^{th} (enrollment fluctuates due to a variety of factors).

Improvements to Coldwater Canyon Avenue in front of the ~~site~~ Development Site would improve circulation in the immediate vicinity of the ~~school~~ Harvard-Westlake School but would not be sufficient to attract increased traffic through the area.

The Harvard-Westlake Campus currently has one playing field (Ted Slavin Field), which cannot accommodate practices and games related to all of the numerous sports for boys and girls offered by the Harvard-Westlake School, such as football, lacrosse, field hockey, soccer and track and field. Many of the school teams currently practice off-site. The Harvard-Westlake School would be able to hold simultaneous practice sessions on separate fields instead of on the same field as currently occurs. The practice field atop the Parking Structure would provide recreational opportunities for existing students and would therefore not be growth-inducing.

POTENTIAL SECONDARY EFFECTS

CEQA Guidelines Section 15126.4(a)(1)(D) states that, "[i]f a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measures shall be discussed but in less detail than the significant effects of the project as proposed."

The RDEIR identifies mitigation measures to address Project impacts as feasible. Mitigation measures to address aesthetic impacts include requirements to develop and maintain the building in an attractive manner, and shielding lighting~~;~~. These measures would not result in additional impacts.

In order to reduce on-site dust the applicant will be required to water the ~~site~~ Development Site (or use a stabilizing agent) ~~measures to reduce dust including watering the site~~ at least three times per day. Use of this water would result in an incremental but less than significant demand for water.

Mitigation also includes use of alternative fuels, minimizing idling time, and other techniques to minimize emissions, none of which would result in additional adverse impacts.

In order to address Project impacts on protected trees, the RDEIR identifies planting a substantial number of new trees as a requirement for the Project. The mitigation measure is specific as to how new trees will be planted in order to avoid additional impacts.

Measures to reduce impacts on geology and hydrology including erosion control, drainage and other BMPs would not result in additional adverse impacts.

Mitigation measures to reduce noise include scheduling and other actions including locating staging areas away from sensitive uses in order to minimize noise levels from on-site equipment.

In summary, none of the mitigation measures identified in this RDEIR are anticipated to result in additional adverse impacts beyond those addressed in Chapter 3.

EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the CEQA Guidelines requires that an EIR contain a brief statement indicating the reasons that certain possible significant effects of a project were determined to be less than significant and thus, were not analyzed in the EIR. Discussions of those impacts found not to be significant are included in the Initial Study (Appendix B). In addition, some of the issue areas analyzed in the ~~Draft~~ RDEIR were found to be less than significant. These issue areas are fully discussed in the Executive Summary and Chapter 3 of this RDEIR.

Issues Found to Have No Impact or be Less Than Significant in the Initial Study (not Including Issues Analyzed in RDEIR)

Agriculture and Forest: The Proposed Project would be infill development located within the urbanized City ~~of Los Angeles~~. "Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The Project would not conflict with existing zoning for agricultural, forest land, timberland use, or a Williamson Act contract, nor would it involve any changes to the environment that could result in the conversion of farmland or forestland. While the Development Site does include ~~2.76~~ 3.33 acres of Southern live oak/southern walnut woodland (approximately half the Development Site), this area is not managed for public benefit. Therefore, no impact would occur.

Cultural Resources (Historic Resources): The Harvard-Westlake ~~Upper School~~ Campus includes City ~~of Los Angeles~~ Historic-Cultural Monument No. 32, Saint Saviour's Chapel. It was listed in 1965. The ~~chapel~~ Saint Saviour's Chapel was built in 1914 at the original campus of the Harvard School at Western Avenue and Venice Boulevard. It was designed by Reginald Johnson, the son of the first Episcopal bishop of Los Angeles. When the campus moved to its present Studio City location in 1937, the ~~chapel~~ Saint Saviour's Chapel was divided into 16 pieces and moved to the new campus. There are no other known resources in the vicinity of the Development Site. No changes are proposed to the ~~chapel~~ Saint Saviour's Chapel or to its immediate vicinity. Therefore, there would be no impacts to an historical resource.

Hazards and Hazardous Materials: Construction of the Proposed Project would involve the use of potentially hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Operation of the Parking Structure would not involve the routine transport, use, or disposal of hazardous substances other than minor amounts of cleaning materials and fuels in parked vehicles as well as herbicides or pesticides that would be used for landscaping. The quantities of such products are not expected to be large enough to create a potential hazard to the public or environment through their routine transport, use or disposal. Hazardous materials would be handled in accordance with federal OSHA and California OSHA standards. Therefore, impacts would be less than significant.

The Development Site is not on a list of hazardous materials sites. Previous uses on the Development Site have included residential use and construction staging. Implementation of the Parking Structure would not create a significant hazard to the public or the environment. Therefore, less than significant impacts would occur.

The hillside areas of Los Angeles are located in a Mountain Fire District that are subject to increased risk of fire due to topography. The Project would include irrigated landscaping that would help reduce the risk of fire. The Project would not increase risk of wildland fire. The Project includes the vacation of a paper street -- Hacienda Drive west of Coldwater Canyon Avenue; the City Fire Department raised no objection to the proposed vacation.[1] Therefore, no impact would occur.

Mineral Resources: The Development Site is not located within or adjacent to City-designated Oil Field/Drilling Areas (La Cienega Oil Field, LA City Oil Field, LA Downtown Oil Field). No impacts to the availability of mineral resources are anticipated. Implementation of the Proposed Project would not result in the loss of availability of any known mineral resources. Therefore, no impact would occur.

Population and Housing: The Proposed Project would not develop residential uses, and therefore, would not induce population growth. The Project would be an ancillary use to an existing school, which would not result in an increase in student population. Therefore, no impact would occur.

Public Services and Utilities: While the Proposed Project is located in a Mountain Fire District, it would include irrigated landscaping that would help reduce the risk of fire. The Project would not increase risk of wildland fire. The Proposed Project would not induce growth and would not result in an increase in demand for fire and police services, parks or schools. The Proposed Project ~~could~~ would include bathrooms, which would connect to the public sewer system resulting in potential minor incremental increases in wastewater flows. The Proposed Project would adhere to all applicable Regional Water Quality Control Board (RWQCB) requirements and policies. Construction and implementation of the Proposed Project would not exceed wastewater treatment requirements of the ~~Regional Water Quality Control Board (~~RWQCB~~)~~. The Proposed Project includes a debris ~~catchment~~ basin~~s~~ as well as a flow-through planter ~~bio swale~~ that would help in managing and cleansing stormwater. Implementation of BMPs (discussed in the RDEIR in the Hydrology section) would occur in accordance with City requirements. Therefore, impacts are anticipated to be less than significant with mitigation. Solid waste management is guided by the California Integrated Waste Management Act of 1989 that emphasizes resource conservation through reduction, recycling, and reuse of

[1] City of Los Angeles Inter-departmental Correspondence Re: Street Vacation No. E1401273, John N. Vidovich, Fire Marshall May 28, 2015; see Appendix J.

solid waste. All local, State, and federal guidelines regarding solid waste will be complied with during Project construction and operation, including Assembly Bill 1327, which requires that adequate areas for collecting and loading recyclable materials be provided. Therefore, no impacts would occur.

Issues Found to be Less Than Significant in this RDEIR

Aesthetics – Visual Character, Views, Shading, Lighting: With mitigation included in the Project (appropriate selection of construction materials and substantial vegetative screening) the level of impact to visual character and views is anticipated to be less than significant given that the surrounding hillsides are substantially developed with homes, the relatively short segment of Coldwater Canyon Avenue (a designated Secondary Scenic Highway) where the Project (Parking Structure and pedestrian bridge) would be visible, the low intensity and shielded lighting throughout the Project, the open architecture of the Parking Structure and pedestrian bridge and the topographic separation of the ~~site~~ Development Site from adjacent open space owned by the Mountains Recreation and Conservation Authority (Coldwater Canyon Open Space) and the identified Scenic Corridor.

Given the location of the ~~Project~~ Development Site nestled in to an east~~ west-~~facing hillside, the Proposed Project does not have the potential to cause significant shading impacts.

In general, based on the experience at Ted Slavin Field, spillover lighting would be less than 1 fc at distances greater than 90 feet from the Parking Structure (i.e. at the closest residence). Therefore, the proposed ~~athletic~~ practice field would result in less-than-significant impacts related to light and glare. However, the lighted field would be visible from a number of homes and yards in the surrounding area, which could be annoying to some residents.

Air Quality and Greenhouse Gas – Consistency with AQMP, Construction Criteria Pollutants, Localized Significance Thresholds, Project Operation, Odors, Greenhouse Gas Emissions: The Proposed Project would be consistent with the assumptions of the AQMP. With mitigation, regional emissions during construction of criteria pollutants would be below SCAQMD thresholds. Project construction would not result in emissions exceeding SCAQMD localized significance thresholds. The Project would not generate new trips and operation of the ~~structure~~ Parking Structure would not generate emissions that would exceed SCAQMD thresholds. The Project would not result in unusual odors beyond those normally associated with construction activities. Greenhouse gas emissions would be below applicable thresholds.

Biological Resources – ~~sensitive habitats,~~ Protected Trees, Introduced Species~~, protected species listed species, disturb wildlife, nesting birds, foraging habitat~~: ~~On~~ Upon completion of the Proposed Project approximately ~~60~~ 64% of the ~~site~~ Development Site would remain in open space/landscaping, will be more densely forested and will be maintained in a scenic and attractive setting. The majority of the area to be impacted by the Project was previously disturbed. The Proposed Project includes on-site (and as appropriate off-site) replacement of ~~impacted~~ protected trees at a ratio of 4:1.

Cultural Resources (Archeological, Paleontological, and Human Remains Resources): The Project Site includes areas that have previously been disturbed (on the Harvard-Westlake Campus on the east side of Coldwater Canyon Avenue and on the Development Site where four ~~two~~ residences were previously located) as well as vegetated hillsides. No archeological or paleontological resources or human remains are known to exist in the immediate vicinity of the Development Site and no impacts are anticipated. In the unlikely event that resources or remains are encountered during excavation, the standard City conditions would be imposed.

Geology, Soils, Hydrology (including Storm Water Drainage) – ~~risk due to geologic hazard , erosion, topographic alteration, water quality~~ Risk Due to Geologic Hazard, Erosion, Topographic Alteration, Water Quality: The Proposed Project would be constructed to meet all applicable codes relevant to geology and hydrology and would incorporate BMPs to reduce any drainage or water quality impacts.

Land Use – ~~division of a community, consistency with plans and policies~~ Division of a Community, Consistency with Plans and Policies: The Proposed Project would be across a roadway from the ~~school~~ Harvard-Westlake School use that it would be associated with. The north and east-facing slopes that occupy more than a third of the Development Site are heavily vegetated and provide a substantial buffer from adjacent uses. Therefore, the Project would not divide, disrupt or isolate an existing community. The Project would be generally consistent with applicable plans and policies.

Noise – Project operation: The Project would not generate new trips and the noise associated with the Parking Structure and ~~Athletic Field~~ practice field is not anticipated to rise to a significant level.

Transportation, Circulation and Parking – Project construction, traffic flow, Congestion Management Plan: Construction traffic would impact local streets but not to the extent that it would result in a significant impact. On completion the Project would not ~~generate any new~~ result in any additional trips~~, other than during construction~~. The Proposed Project would change turning movements and parking layout. With the roadway improvements included in the Project and the ability for students to park in the ~~new~~ Parking Structure rather than in the neighborhood, impacts are generally anticipated to ~~be~~ improve in the immediate vicinity of the ~~School~~ Harvard-Westlake Campus.

5.0 ALTERNATIVES TO THE PROPOSED PROJECT

REASONS FOR ALTERNATIVES ANALYSIS

The ~~State~~ CEQA Guidelines require the identification and evaluation of reasonable alternatives designed to meet most of the project's objectives (see ~~Section 2,~~ Project ~~Description~~ Objectives of this RDEIR), while reducing the environmental impacts of the project.[1] The CEQA Guidelines further discuss the intent and extent of the alternatives analysis to be provided in an EIR. Alternatives are an important tool in the CEQA process to provide decision makers with comparative information about the impacts of a specific project, and how other possible projects could reduce those impacts, even if some of the objectives of the project are not met or would be more costly.

As stated in Section 15151 of the CEQA Guidelines, an EIR must contain "…a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes into account environmental consequences" of the proposed action. Identification and evaluation of a range of reasonable project alternatives as required by Section 15126.6(c) of the CEQA Guidelines is an essential part of providing sufficient information. Pursuant to Section 15126.6(e)(2) of the CEQA Guidelines, the discussion of alternatives must also identify the environmentally superior alternative. However, the analysis of the environmental effects of project alternatives need not be as thorough or detailed as the analysis of the project itself. The intent of the alternatives analysis is to ensure that other approaches to avoid or reduce significant environmental impacts were considered. The merits of the alternatives and how potential environmental impacts of the alternatives compare to the project offer valuable information to the lead agency.

NUMBER OF ALTERNATIVES EVALUATED

Neither ~~the~~ CEQA ~~statute~~, the CEQA Guidelines, nor recent court cases specify a precise number of alternatives to be evaluated in an EIR. Rather, "the range of alternatives required in an EIR is governed by the rule of reason that sets forth only those alternatives necessary to permit a reasoned choice."[2] However, the CEQA Guidelines require that a "No Project" alternative must be included, and if appropriate, an alternative site location should be analyzed.[3] For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR. Alternative sites for the Project that were not located on the Harvard-Westlake Campus were considered and dismissed due to the lack of similarly sized available properties within reasonable proximity to the Harvard-Westlake Campus. However, an alternative site located on the Harvard-Westlake Campus on the east side of Coldwater Canyon Avenue was analyzed. If appropriate, other Project alternatives may involve a modification of the proposed land uses, density, or other Project elements at the same Project location.

Criteria for Establishing Impacts

Alternatives should be selected on the basis of their ability to attain most of the basic objectives of a project while reducing the project's significant environmental effects. The CEQA Guidelines state that "...[t]he EIR should briefly describe the rationale for selecting alternatives to be discussed [and]...shall include sufficient information to allow meaningful evaluation, analysis and comparison with the Proposed Project."[4] The feasibility of the alternatives is another consideration in the selection of alternatives. The CEQA Guidelines state that "[a]mong the factors that may be taken into account when addressing the feasibility of alternatives

[1] CEQA Guidelines, Section 15126.6
[2] CEQA Guidelines, Section 15126.6(f).
[3] CEQA Guidelines, Sections 15126.6(e) and 15126(f)(2).
[4] Section 15126.6(e) and Section 15126(f).

are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations [and] jurisdictional boundaries..."[5] "The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making."[6] Alternatives that are considered remote or speculative, or whose effects cannot be reasonably predicted do not require consideration.

Although the potential to mitigate significant project-related impacts and to reasonably inform the decision-maker and the public are primary considerations in the Alternatives selection, the feasibility of the Alternative is important.

Project Level Impacts

As addressed in this RDEIR, the Project would create unavoidable significant impacts as follows:

- ~~Significant air quality impacts during construction at up to six homes located adjacent to the site west of Coldwater Canyon Avenue.~~
- Impacts to oak-walnut woodlands could result in Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that forage on the Development Site on occasion.
- ~~Significant noise impacts during construction at approximately 36 sensitive receptors (homes and the Sunnyside Preschool) in the vicinity of the Development Site on both sides of Coldwater Canyon Avenue.~~ Mitigation measures would reduce construction noise levels but not below a level of significance during the most impactful phase of construction (excavation, hauling, soil nailing and placing shotcrete). Mitigated construction noise levels would exceed the 5-dBA significance threshold at about 51 sensitive receptors (homes on the east and west side of Coldwater Canyon Avenue in the vicinity of the Development Site and the St. Michael's Church (which includes Sunnyside Preschool).

Other potentially significant impacts would be reduced to less than significant levels with implementation of the mitigation measures identified in the respective impact analysis sections of this RDEIR

As called for by the CEQA Guidelines, the achievement of project objectives must be balanced by the ability of an alternative to reduce the significant impacts of a project. The Proposed Project's objectives include increasing on-campus parking supply, thereby reducing parking impacts on the surrounding community, and improving traffic flow adjacent to the ~~School~~ Harvard-Westlake Campus and increasing safety. Specifically, the objectives of the Project are:

- Increase on-site parking supply for the Harvard-Westlake Campus for regular school use, as well as for typical school-related activities outside of regular school hours (such as football games), essentially eliminating the need for school-related vehicles to park on-street, either on Coldwater Canyon Avenue or in the residential neighborhood north of the Harvard-Westlake Campus.

- Improve area circulation by removing vehicles and buses parking on Coldwater Canyon Avenue and on other nearby residential streets.

- Improve the flow of traffic on Coldwater Canyon Avenue by constructing the following public improvements at no cost to the City or to the community:

[5] Section 15126.6(f)(1).
[6] Section 15126.6(f).

  - Provide one northbound through lane and two southbound through lanes on Coldwater Canyon Avenue along the Development Site frontage (resulting in the addition of one southbound through lane).
  - At the intersection of Coldwater Canyon Avenue and the Development Site's northerly driveway opposite the relocated Main Entrance driveway, provide:
    - Northbound: One left-turn lane, one through lane and one right-turn lane;
    - Southbound: One left-turn lane, two through lanes and one right-turn lane;
    - Eastbound: One left-turn lane and one optional through/right-turn lane; and
    - Westbound: One left-turn lane and one optional through/right-turn lane.
  - At the intersection of Coldwater Canyon Avenue and the Development Site's northerly driveway opposite the relocated Main Entrance, provide new traffic signal equipment, including left-turn phasing for northbound and southbound Coldwater Canyon Avenue traffic, and LADOT's ATSAC/ATCS equipment with connection to the Coldwater Canyon Avenue intersection at Ventura Boulevard.
  - At the intersection of Coldwater Canyon Avenue and the Development Site's southerly driveway, provide:
    - Northbound: One through lane (i.e., no left-turns from northbound Coldwater Canyon Avenue to the southerly driveway will be permitted).
    - Southbound: Two through lanes and one right-turn lane.
    - Eastbound: One optional left-turn/right-lane (controlled by a stop sign, with no left-turns permitted weekdays 7:00 a.m. – 6:00 p.m.).

- Enhance safety and security associated with vehicular and pedestrian circulation on the Harvard-Westlake Campus and in the surrounding area, including the relocation of:
  - Cars that currently park off-campus along Coldwater Canyon Avenue and neighboring streets, and
  - School bus drop-off/pick-up operations on-site.

- Enhance ~~playing~~ practice field facilities, to increase opportunities for recreational activities on-campus.~~ The number of events that occur on-campus would not change. The school would be able to hold simultaneous practice sessions on separate fields instead of on the same field as currently occurs.~~

ALTERNATIVES REJECTED FROM CONSIDERATION

Off-Site (Leased) Parking

This RDEIR does not analyze an alternative on property that the Harvard-Westlake School does not own (for example leasing parking along Ventura Boulevard or elsewhere). Such an alternative is speculative and infeasible. In addition parking facilities on Ventura Boulevard would cause logistical problems for students, faculty and staff in getting to Campus in a timely fashion, potentially resulting in more traffic circulating between the campus and any facility on Ventura Boulevard. In addition, it is anticipated that such an alternative would not alleviate parking in the neighborhood as students would prefer to park closer to the Harvard-Westlake School without the need of taking a shuttle.

Increased Transportation Demand Management

The Harvard-Westlake School has a complicated program of activities that includes a variety of after-school programs. Most students and faculty arrive at the same time in the morning, but the end of the day involves numerous activities with staggered end times resulting in limitations on how much carpooling, transit and busing can be done by students and faculty. In addition, the Harvard-Westlake Campus has numerous events where guests come to Campus for relatively brief periods of time and need parking (e.g. parent teacher meetings, committee meetings, etc.). Increasing TDM is a mitigation measure that could help reduce demand for parking but not to the extent that additional parking would not be needed. Existing TDM at the Harvard-Westlake School and the potential to increase TDM is discussed in Section 3.8 Transportation Circulation and Parking.

Subsurface Parking East of Coldwater Canyon Avenue and/or Subsurface Tunnel Under Coldwater Canyon Avenue

The Harvard-Westlake Campus (on the east side of Coldwater Canyon Avenue) is located at a low-point, or a sump, of an estimated 140-acre watershed, which makes the construction of a subterranean parking structure on the Harvard-Westlake Campus infeasible. The Los Angeles County Department of Public Works Hydraulic and Hydrology Manual requires that new construction within a sump be designed to withstand the discharge from a 50-year storm event. (Los Angeles County Department of Public Works, ~~Hydraulic and~~ Hydrology Manual, January 2006.) Using the County's methodology, including rainfall data, it is estimated that the potential runoff from a 50-year storm would be approximately 440 cubic feet per second. Currently, there is a 24-inch reinforced concrete pipe storm drain, which has a capacity to drain less than 20 cubic feet per second. To satisfy the County's minimum requirement, significant additional infrastructure would need to be constructed beneath the Harvard-Westlake Campus and Coldwater Canyon Avenue to convey the large flow differential; pipe sizes in the range of 60 to 84 inches in diameter could be required. Installation of a large storm drain pipe in Coldwater Canyon Avenue is not feasible due to the existing utility infrastructure (including the recently installed 60-inch DWP water line, three-inch gas line, six-inch water line, 51-inch water line, eight-inch sewer and PT&T telephone infrastructure among others) already occupying the space (i.e. there is not sufficient space to install the required infrastructure). Because of the required infrastructure and the existing infrastructure improvements beneath Coldwater Canyon Avenue and the resultant space limitations, it is not feasible to construct the additional required infrastructure to drain discharge from a 50-year storm event.[7]

~~In addition,~~ The Harvard-Westlake Campus has a high water table and is located in a sump, which creates potential safety concerns due to the potential higher incidence of flooding. On the east side of Coldwater Canyon Avenue, groundwater was observed at a depth of 29 feet during a 2011 boring relating to the construction of the Harvard-Westlake School pool but not during the 2014 boring conducted in the area of the eastern bridge support (to a maximum depth of 41 feet).) The potential for rapid flooding with little warning and reliance on mechanical pumping of runoff increase the safety risk, making subterranean parking infeasible ~~(on either side of Coldwater Canyon Avenue)~~.

~~Constructing a partial subterranean parking structure (one subterranean level, one at grade level, and one above grade level and an athletic field on the top) on the west side of Coldwater Canyon Avenue would lower the height of the top of the structure by approximately 12 feet as compared to the project; however, this alternative would require that the base of the retaining wall be 12 feet deeper as compared to the Project, which would result in the retaining wall becoming more visible from Coldwater Canyon because the structure would be lower and the retaining wall would be set back further from Coldwater Canyon Avenue. In addition, this alternative would increase grading by approximately 44,000 cubic yards. The construction period would be extended by approximately 20 weeks (8 weeks for grading and 12 weeks for building construction) as compared to the Project. In addition mechanical ventilation of the subsurface parking would be required.~~

7 Letter regarding Harvard-Westlake School Parking Structure, Doug Conlon, Associate, KPFF, June 8, 2015 (see **Appendix E.4**).

With respect to building a subterranean tunnel beneath Coldwater Canyon Avenue to connect the Parking Structure and the west side of the Harvard-Westlake Campus, as discussed above, there are large-capacity infrastructure improvements beneath Coldwater Canyon Avenue, including the DWP's recently constructed city trunk water line, data/phone lines and storm water facilities, which make the construction of a tunnel under Coldwater Canyon Avenue infeasible. Additionally there are safety concerns associated with a high water table and potential flooding during storms.

~~Sports~~ Practice Field Only

Without providing increased parking, most of the Project objectives would not be satisfied and therefore such an alternative is not required under CEQA. An alternative with reduced parking is considered in ~~the analysis (see~~ Alternative 3~~)~~.

Smaller Parking Structures Throughout The Harvard-Westlake Campus

There are three main surface parking areas on-campus. None of them are large enough to allow construction of a practice field, which is one of the key objectives of the Proposed Project. Therefore none of these locations is desirable for the Harvard-Westlake School. With respect to each of these parking areas: 1) development of the Southern Lot is addressed in Alternative 5 below; 2) development of a multi-story structure on the Senior Lot (north of the Southern Lot) would impede student circulation on the Harvard-Westlake Campus and would result in similar impacts to development of the Southern Lot potentially with additional impacts (visual quality, lighting and noise) to more residential uses to the east of the Harvard-Westlake Campus; and 3) development of the small lot at the northeast corner of the Harvard-Westlake Campus (Rugby Lot) would be severely constrained – access is by a single lane driveway that is bordered by buildings, topography and an adjacent ditch. In addition, surrounding residential development is located immediately adjacent to the parking area – all of these factors make development of a multi-story structure in this location infeasible.

Two-Stories Above Grade, One Story Below Grade

This alternative would include one subterranean level (11 feet 4 inches below grade) and two stories above grade (plus rooftop practice field). The same area of the Development Site would be disturbed. Construction activities would be similar to the Proposed Project. It would require an additional 56,000 cubic yards of excavated soil to be removed (for a total of 196,000 cubic yards). The height of the structure would be reduced by approximately 11 feet 4 inches from 44 feet 6 inches to 33 feet 2 inches, but the height of the retaining walls would not change and therefore views of the Development Site would be similar to the Project inasmuch as the Parking Structure or wall would be visible on the Development Site. The retaining walls would therefore become more visible behind the Parking Structure. Therefore, this alternative was not explored further because it would have the same significant impacts as those of the Proposed Project and provides no environmental benefit compared to the Proposed Project.

Groundwater was not encountered on the west side of Coldwater Canyon Avenue during the six borings conducted in 1998 (to a maximum depth of 43 feet), ten borings conducted in 2009 (to a maximum depth of 71 feet), and eight borings conducted in 2014 (to a maximum depth of 76 feet). Therefore groundwater is not a concern on the west side of Coldwater Canyon Avenue, nor is the Development Site located in the sump.

Mechanical ventilation of the subsurface parking would be required which would increase energy use and exhaust of the ventilation would have to be carefully located to avoid noise and air quality impacts.

OVERVIEW OF ALTERNATIVES CONSIDERED

The following alternatives were considered as feasible alternatives to the Project:

1. No Project. Under this alternative, nothing would change on the Development Site. The walnut trees (~~271~~ 273 trees) would continue to die and would not be replaced. The area adjacent to Coldwater Canyon Avenue would continue to be used for storage of construction equipment and ~~school~~ the Harvard-Westlake School equipment and supplies.

2. Existing Zoning (4 new homes). This alternative would result in continuation of ~~school~~ the Harvard-Westlake School parking on~~-~~ Coldwater Canyon Avenue and in the adjacent neighborhoods. The Development Site would be improved with residential uses consistent with the existing zoning.

3. Reduced Development Alternative (Two-Story Structure, No ~~Athletic~~ Practice Field, No Pedestrian Bridge). This alternative would involve the construction of a two-story parking structure containing approximately 500 spaces. This alternative would not include a~~n athletic~~ practice field (and would therefore not include lighting on the top deck). This alternative would not include a pedestrian bridge. Rather it would include a cross walk (with a signal). There would be no activity on the roof of this structure. This alternative would not include as much parking as the Project and therefore, parking in the Southern Parking Lot would still be needed. It would remain as a parking lot. Bus operations would continue to occur on Coldwater Canyon Avenue.

4. Smaller Footprint Parking Structure, No ~~Athletic~~ Practice Field, Rooftop Parking. This alternative would have the same number of spaces as the Project. The structure would include five parking levels including parking on the roof level~~;~~. ~~therefore~~ The footprint of the structure would be smaller than for the Proposed Project as there would be the same number of parking spaces spread over five levels ~~of parking~~ as compared to three levels under the Proposed Project. This alternative would include the ~~Pedestrian Bridge~~ pedestrian bridge.

5. East Side of Coldwater Canyon Avenue –Southern Parking Lot, No Practice Field, Rooftop Parking. This alternative considers placing the Parking Structure on the Southern Parking Lot located at the southern end of the Campus east of Coldwater Canyon Avenue.

ALTERNATIVE 1 – NO PROJECT

Description of Alternative

This alternative assumes that the Project would not be constructed. The Development Site would continue to be used for storage of construction equipment and school equipment and supplies. The on-site walnut trees (~~271~~ 273 trees) would continue to deteriorate and die and would not be replaced.

Impact Comparison

The following environmental impacts would be expected under the No Project alternative.

Aesthetics/Views/Lighting

Visual Quality. The character of the ~~site~~ Development Site would remain as at present. The walnut trees would continue to die as part of the natural cycle of tree death and regrowth, although the widespread existence of the Walnut Twig Beetle and TCD introduces the possible non-viability of the entire onsite walnut tree population. ~~At the same time, project impacts would be less than significant as cutting down trees and~~

~~replanting them can also be part of the natural cycle.~~ The relative merits of a natural slope with dying/dead trees as compared to a new ~~Parking Structure~~ parking structure with high design values and substantial landscaping is subjective and could depend on the viewer. Under the Proposed Project, removal of all protected trees would be mitigated at a ratio of 4:1 resulting in many more protected trees being located on the Development Site than are there now, thereby allowing replacement of dead walnut trees in areas of the Development Site that would not be touched by the Project. The No Project Alternative, as with the Project would have a less than significant impact with mitigation.

Views. Views of the ~~site~~ Development Site would remain as at present. As with the Project, impacts would be less than significant as tree death and regrowth is part of the natural cycle.

Lighting. Lighting on the ~~site~~ Development Site would remain as at present. There would be no new lighting as would occur under the Project. There would be no impacts to lighting. No new lighting would be introduced on the ~~Project~~ Development Site. The No Project Alternative would have no impact on lighting as compared to the Project, which would have a less-than-significant impact with mitigation.

Air Quality

Construction. There would be no construction under the No Project Alternative. Therefore, there would be no impacts to air quality under the No Project Alternative as compared to the Proposed Project with impacts that would be less than significant with mitigation.

Operation. Since there would be no change to the ~~Project~~ Development Site under the No Project alternative and the property would remain in its existing condition, there would be no operational impacts to air quality (as compared to the Project which would have a less than significant impact on operational emissions).

Biological Resources

Trees. The on-site walnuts would continue to die without being replaced. Under the Project approximately ~~60~~ 64% of the site would be in native vegetation/landscaping, and dying trees would be replaced with healthy trees as appropriate -- protected trees lost due to development would be replaced at a ratio of 4:1 which would fill in for dying walnuts both in the impact area and on the rest of the ~~site~~ Development Site where walnuts are dying and vegetation is generally sparse. No new trees would be planted under this alternative and the hillside ecosystem would remain intact. ~~Nonetheless,~~ Retention of the native landscaping under the No Project alternative would ~~result in fewer impacts~~ eliminate the significant impacts to oak-walnut woodlands and associated ~~to~~ biological resources as compared to the project. The No Project Alternative would have no impact on trees.

Birds and Other Native Species. The No Project Alternative would not impact biological resources on the ~~Project~~ Development Site. Changes in the tree population could change the mix of species on the site but the impact would be less than significant, as compared to the Project, which would have a cumulatively significant and unavoidable impact with respect to sensitive (including bird) species.

Cultural Resources

This alternative would result in no disturbance to the hillside. Therefore there would be no impacts to potential archeological or paleontological resources, as compared to the Project, which would have a less-than-significant impact with mitigation.

Geology, Soils and Hydrology

Grading. The No Project Alternative would result in no grading of the site~~;~~. ~~135,000~~ Under the Project, conservatively 140,000 cubic yards of soil would ~~not~~ be removed from the ~~Project~~ Development Site. The No Project alternative would have no impact on grading as compared to the Project which would have a ~~Therefore impacts would be~~ less-than-significant impact.

Seismicity. The hillside on the ~~Project~~ Development Site would remain in its current state. While there may be some liquefiable soils on the Development Site, no major instability is anticipated. The No Project alternative would have no impact on seismicity as compared to the Project which would have a ~~Impacts would be~~ less-than-significant impact.

Hydrology. Under the No Project alternative, hydrologic impacts would remain as at present. No erosion would occur as a result of construction activity. Impacts would remain as at present. The No Project alternative would have no impact on hydrology as compared to the Project which would have a ~~and would be~~ less-than-significant impact with mitigation.

Water Quality. There would be no impacts to water quality on the site as a result of construction and vehicular activity. There would be no impacts to water quality, as compared to the Project, which would have a less-than-significant impact with mitigation.

Land Use and Planning

Consistency with Adjacent Uses. The Development Site would remain in its present condition. There would be no change in land use from a partially vacant site to a parking garage. The No Project alternative would have no impact on adjacent land use as compared to the Project which would have a ~~Impacts to land use would be~~ less-than-significant impact.

Consistency with Plans. There would be no change in land use at the Development Site; therefore there would be no impact to consistency with applicable plans, as compared to the Project, which would have a less-than-significant impact with respect to plan consistency.

Noise

Construction. No construction would occur at the Project Site. Therefore the significant construction noise impacts that would be associated with the Project would not occur under this alternative.

Operation. Under the No Project alternative, noise levels on the Development Site would remain as at present. There would be no noise associated with operation of a new parking garage and ~~athletic~~ practice field. Therefore impacts would be less than the Project for which impacts would be less than significant**.**

Transportation and Circulation

Under the No Project alternative, traffic would remain as in its present state, and the parking and circulation improvements proposed under the Project would not occur. Traffic improvements adjacent to the ~~Project~~ Development Site would not occur, and school bus operations would continue to occur along Coldwater Canyon Avenue instead of on the Harvard-Westlake Campus. In addition, overflow parking would continue in the surrounding neighborhoods. As a result, the associated benefits anticipated under the Project would not occur. Therefore, impacts of this alternative would be greater than the Project but less than significant compared to existing conditions, since there would be no change. Project impacts would be less than significant.

Relationship of the Alternative to Project Objectives

This alternative would not meet any of the Project objectives. The on-site parking supply for the Harvard-Westlake Campus would not be increased, and school-related vehicles would continue to park on-street, either on Coldwater Canyon Avenue or in the surrounding residential neighborhoods. Circulation and safety in the vicinity would not be improved as vehicles and school buses would continue to park and load/unload students on Coldwater Canyon Avenue. The flow of traffic on Coldwater Canyon Avenue would not be improved since the improvements proposed under the Project would not be constructed. Finally, there would be no increased opportunities for recreational activities on ~~campus~~ the Harvard-Westlake Campus since the proposed ~~athletic~~ practice field would not be constructed. Thus, this alternative would not meet Project objectives.

Conclusion

On-site protected trees (walnuts) would continue to die (from the infectious ~~fungus disease~~ TCD) without being replaced outside of the natural cycle of tree death and regrowth. Traffic improvements along Coldwater Canyon Avenue adjacent to the ~~Project~~ Development Site would not be implemented, school buses would continue to load and unload students along Coldwater Canyon Avenue, and overflow parking would continue to occur within the surrounding areas. The No Project alternative would reduce or avoid all other significant, less than significant, and significant but mitigated environmental impacts that would occur under the Project. As discussed in more detail later in this section, the No Project alternative is considered to be the environmentally superior alternative. However, CEQA Guidelines Section 15126.6(e)(2) provides that when the No Project alternative is identified as the environmentally superior alternative, another environmentally superior alternative must be identified from among the other alternatives.

ALTERNATIVE 2 – EXISTING ZONING (4 NEW HOMES)

Description of Alternative

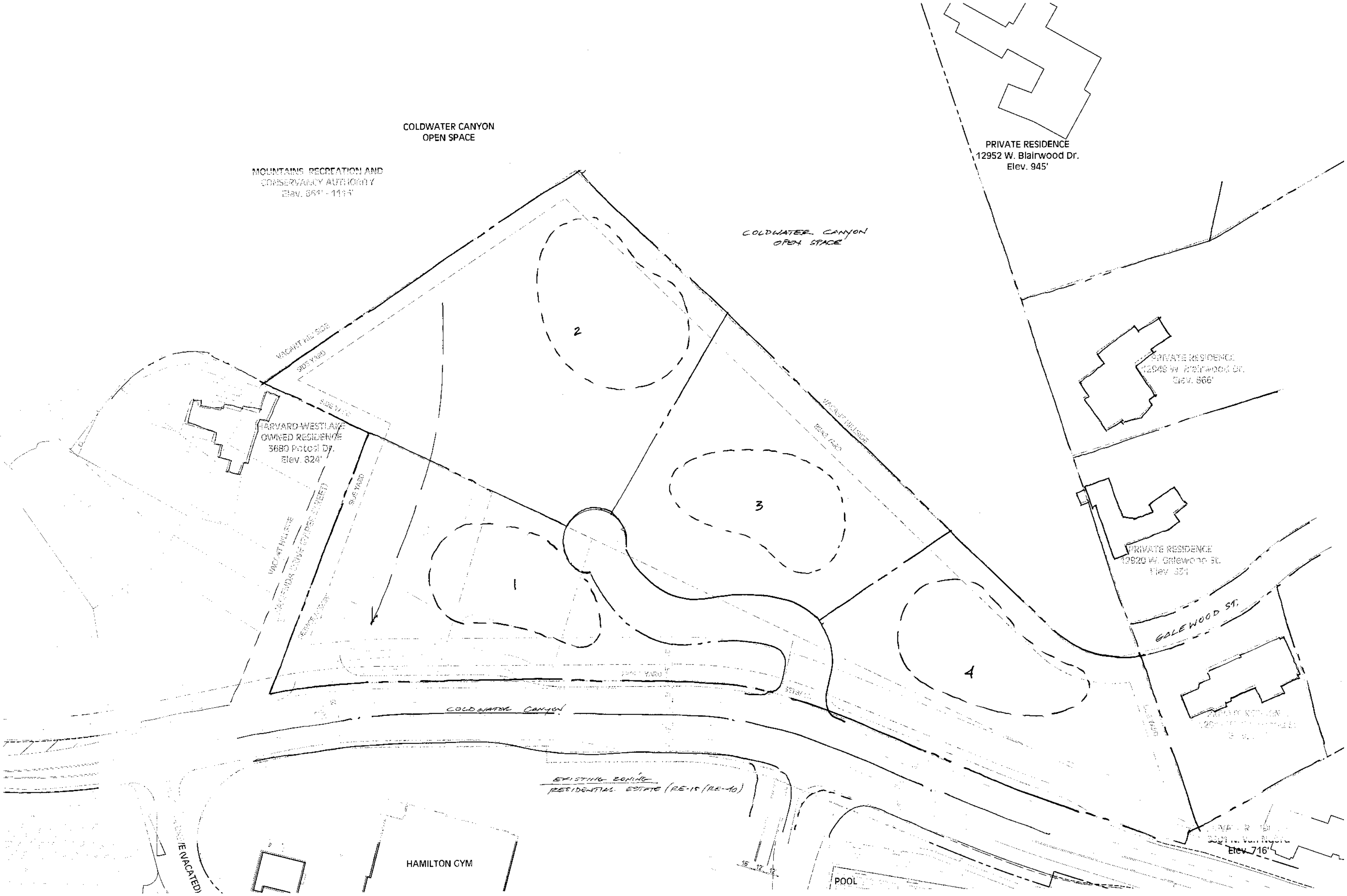
This alternative assumes that the Project would not be constructed. This alternative assumes that the ~~site~~ Development Site would be developed consistent with existing zoning and without the need for a discretionary permit. While there are pads for four homes on the Development Site plus one vacant home, in order to have one point of access on Coldwater Canyon Avenue and to provide for high-end housing, some grading would be required. This alternative would result in 35,250 cubic yards of grading (23,000 cubic yards of cut and 12,250 cubic yards of fill), with 10,750 cubic yards of export. Under existing zoning, approximately four new homes could be constructed on the Development Site (see **Figure 5-1**) and the existing home on Potosi Avenue could be re-occupied or upgraded. Grading beyond the base limits permitted under the Baseline Hillside Ordinance would not be allowable without a discretionary permit.

Impact Comparison

The following environmental impacts would be expected with implementation of Alternative 2.

Aesthetics/Views/Lighting

Visual Quality. This alternative would involve grading but not to the same extent as the Project. The majority of the hillsides would likely remain in their existing conditions. Impacts would be less than the Project.



SOURCE: IDG Parkitects, Inc.

Figure 5-1

Alternative 2 -- Conceptual Layout of Four New Homesites

Views. Views of the Development Site would be that of a vegetated hillside with a grouping of homes along Coldwater Canyon Avenue. Views would change less than they would under the Project.

Lighting. Lighting from the Parking Structure and pedestrian bridge, through the use of shielded covers and focused LED fixtures, would not result in spillover or direct glare to adjacent properties and is therefore comparable to the low level residential lighting of four homes. However, lighting impacts would still be less than under the Project since there would be no nighttime lighting of the ~~athletic~~ practice field~~, and homes would be lit in a similar fashion to other nearby homes, with low-level residential lighting~~. As with the Project, impacts would be less than significant.

Air Quality

Construction. Air quality impacts would result from construction of the homes. The amount of grading under this alternative is anticipated to be less than the Project and construction associated with four homes would be less than that associated with the Project. Therefore construction air quality impacts would be less than the Project and are anticipated to be less than significant. With mitigation, Project impacts would be less than significant

Operational. Operational air quality emissions ~~on the whole~~ would be somewhat increased as compared to the Project since this alternative results in the addition of vehicle trips whereas the Project does not. Although operational air quality emissions at the Development Site would generally be less under this alternative since the Parking Structure would not be constructed, the emissions associated with the vehicles that would park in the Parking Structure under the Project would still occur in the vicinity since they are presently associated with existing cars that would be relocated from the Harvard-Westlake Campus and surrounding area to the Development Site. This alternative would result in incremental new trips (approximately 38 per day) to the area that would incrementally increase emissions in the area and region. However, as with the Project, impacts of the Existing Zoning Alternative would be less than significant.

Biological Resources

Trees. Development of the ~~site~~ Development Site with four new homes would result in some grading of the Development Site (35,250 cubic yards total as compared to ~~135,000~~ conservatively 140,000 cubic yards under the Project) ~~of the site~~, but in general, the natural vegetated hillside would remain. Grading and development of home sites is only conceptual for purposes of this RDEIR analysis and therefore the acreage of impacted woodland and number of impacted trees cannot be precisely determined. ~~It~~ Nonetheless, it is estimated that this alternative would impact approximately half the number of protected trees as compared to the Project. It is anticipated that the ~~developer~~ applicant would also address some of the dying walnuts that would not otherwise need to be removed, in order to make the site attractive for new homeowners. Impacted trees would be mitigated in accordance with the Protected Tree Ordinance and Board of Public Works requirements. Impacts to oak-walnut woodlands would be reduced and therefore Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that use the Development Site on occasion would be reduced, likely below a level of significance.

Birds and Other Native Species. Development of up to four residences consistent with the existing zoning could impact biological resources on-site as a result of construction activity disturbing nearby wildlife, the possible introduction of non-native ornamental plant species commonly associated with residential development, and human intrusion in to the hillside when the homes are occupied. Due to the smaller footprint of anticipated development, it is anticipated that impacts to biological resources would be less than under the Project.

Cultural Resources

This alternative would result in less area of disturbance to native soils. Therefore impacts would be less than the Project, and would be less than significant as for the Project.

Geology, Soils and Hydrology

Grading. This alternative would result in less grading (35,250 cubic yards with 10,250 cubic yards of export) as compared to the ~~135,000~~ conservatively 140,000 cubic yards of soil to be removed as a result of the Project. Impacts would be less than the Project as a result of a smaller footprint of development and reduced grading, and would be less than significant.

Seismicity. Introduction of four homes would increase the population on the Development Site that could be exposed to geologic hazards, although this would be anticipated to be less than the Project and, as the same as for the Project, less than significant as a result of compliance with applicable codes.

Hydrology. Development of four new homes could result in impacts to hydrology/drainage on the ~~Project~~ Development Site as a result of the introduction of new impermeable surfaces. However, impacts are anticipated to be less than the Project as a result of the smaller footprint of developed area and the reduced grading anticipated for this alternative. Similar to the Project, reduction in the steepness of on-site slopes could result in increased on-site water retention and infiltration. As for the Project, impacts on hydrology would be less than significant with mitigation.

Water Quality. Human activity on the ~~site~~ Development Site associated with the homes could decrease water quality. However, impacts are anticipated to be less than the Project as a result of the smaller footprint of developed area and the reduced grading anticipated for this alternative. As for the Project, impacts on water quality would be less than significant with mitigation.

Land Use and Planning

Consistency with Adjacent Uses. The development of four new homes would be compatible with adjacent residential uses. Consequently, the land use impacts associated with this alternative would be less than those of the Project and would remain less than significant.

Consistency with Plans. In contrast to the Proposed Project, Alternative 2 would not require a conditional use permit. The development of four homes would be consistent with existing land use designations and zoning requirements. Impacts would be less than the Project and would remain less than significant.

Noise

Construction. Construction could generate short-term impacts, however, single-family home construction would not generate noise impacts to the same extent as the Project because of the substantially reduced amount of grading and the reduced amount of construction associated with four single-family homes as compared to the Project. The noise impacts associated with this alternative would generally be less than those of the Project, since it would require substantially less grading and construction of four single-family homes would require less construction equipment than the proposed Parking Structure. Impacts of constructing four new homes would be less than significant with mitigation as compared to the Project, which would have significant impacts on noise during construction.

Operation. Operational noise at the Development Site would be less than the Project since there would be no parking or athletic practice activity. During peak hours mobile-source noise on surrounding streets would incrementally increase as compared to the Project since traffic associated with the residential uses would occur during these times, whereas there would not be any new traffic during these times under the Project. Nonetheless, impacts would be less than significant as with the Project.

Transportation and Circulation

Single-family homes generate 9.57 trips per unit per day, 0.75 trips per unit in the AM peak hour and 1.01 trips per unit in the PM peak hour, according to the Institute of Transportation Engineers' 8th Edition Trip Generation Report. Therefore, this alternative would generate 38.28 new daily trips, 3 AM peak hour trips, and 4.04 PM peak hour trips as compared to the Project, which would not generate any new trips. Traffic impacts would be worse than the Project but likely still not significant. Furthermore, the parking and circulation improvements proposed under the Project would not occur. Traffic improvements adjacent to the Project Site would not occur, and school bus operations would continue along Coldwater Canyon Avenue instead of on the Harvard-Westlake Campus. In addition, overflow parking would continue in the surrounding neighborhoods. Parking would be the same as under existing conditions with 578 spaces on the campus (see **Table 2-1** in the Project Description) and use of 104 ~~121~~ off-campus spaces (including approximately 64 ~~81~~ on surrounding public streets and 40 spaces in the St. Michael's church parking lot). As with the Project, impacts on transportation and circulation would be less than significant.

Relationship of the Alternative to Project Objectives

This alternative would not meet any of the Project objectives. The on-site parking supply for the Harvard-Westlake Campus would not be increased, and school-related vehicles would continue to park on-street, either on Coldwater Canyon Avenue or in the surrounding residential neighborhoods. Circulation and safety in the vicinity would not be improved as vehicles and school buses would continue to park and load/unload students on Coldwater Canyon Avenue. The flow of traffic on Coldwater Canyon Avenue adjacent to the ~~Project~~ Development Site would not be improved. Finally, there would be no increased opportunities for athletic/recreational activities on Campus since the proposed ~~athletic~~ practice field would not be constructed. Thus, this alternative would not meet the Project objectives.

Conclusion

This alternative would not meet the objectives of the Project. Traffic improvements along Coldwater Canyon Avenue would not be implemented, school buses would continue to load and unload students along Coldwater Canyon Avenue, and overflow parking would continue to occur within the surrounding areas. In addition, this alternative would generate approximately 38 new daily trips. Operational noise and air quality emissions would be increased as compared to the Project as a result of the vehicle trips generated by the development associated with this alternative.

ALTERNATIVE 3 – REDUCED DEVELOPMENT ALTERNATIVE (TWO-STORY STRUCTURE, NO ~~ATHLETIC~~ PRACTICE FIELD, NO PEDESTRIAN BRIDGE)

Description of Alternative

This alternative would reduce the number of levels of parking to two from three, thus reducing the amount of construction. There would be no activity on the roof. Approximately the same footprint would be graded. This alternative would not include a ~~an athletic~~ practice field (and would therefore not include lighting on the top deck). This alternative would not include a pedestrian bridge. Rather it would include a cross walk (with a signal). Since this alternative would include fewer parking spaces, the Southern Parking Lot would continue to be used for parking and therefore bus parking would continue to occur on Coldwater Canyon Avenue. This alternative would not provide the same parking benefits as the Project as it would provide one-third fewer spaces (approximately 500 spaces as compared to 750 under the Project). ~~The athletic practice field and associated lights would not be included under this alternative.~~ **Figure 5-2** shows an aerial photograph with a rendering of Alternative 3.

Impact Comparison

Aesthetics/Views/Lighting

Visual Quality. The massing of the ~~structure~~ Parking Structure would be similar under this alternative (the same ~~less~~ length along Coldwater Canyon Avenue but one less ~~additional~~ story) and there would be no ~~Pedestrian Bridge~~ pedestrian bridge. Bus parking would continue on Coldwater Canyon Avenue, which would continue to have a negative impact on visual quality. Impacts would be less than the Project due to no ~~Pedestrian Bridge~~ pedestrian bridge and would continue to be less than significant.

Views. The parking structure would be visible in similar views as the Project. This alternative would not include a pedestrian bridge across Coldwater Canyon Avenue (a designated scenic highway in the City ~~of Los Angeles~~). Substantial landscaping and mitigation of impacts to trees would continue to occur. Given that retaining walls would need to be the same height as for the Project, the reduced number of parking structure stories associated with this alternative results in the retaining walls becoming more visible. Impacts would be less than the Project and would continue to be less than significant with mitigation.

Lighting. There would be minimal new lighting impacts since there would be no ~~athletic~~ practice field atop the structure nor any activity atop the structure. New lighting would occur from security lighting of the structure including internal security lights and headlights. Impacts would be less than the Project and would be less than significant.

Air Quality

Construction. While the amount of construction under this alternative would be less, the amount of grading would be the same ~~the same~~, ~~therefore the significant~~ and air quality impacts related to grading would ~~remain under this alternative,~~ be similar to the Project (less than significant with mitigation). Overall, construction impacts to air quality would be slightly less than the Project since construction would be shortened as compared to the Project as a result of the parking structure having one less level; ~~however, impacts would remain significant because of the same amount of grading~~ impacts would continue to be less than significant with mitigation as with the Project.

Operation. Although operational air quality emissions at the Development Site would generally be less under this alternative since there would be fewer spaces in the Parking Structure, the emissions associated with these vehicles would still occur in the vicinity since they presently occur, and are associated with existing cars that would be relocated from the Harvard-Westlake Campus and surrounding area to the Development Site under the Project. Therefore, impacts would be similar to the Project and less than significant.

SOURCE: IDG Parkitects, Inc.

Figure 5-2

Alternative 3 -- Reduced Development

Biological Resources

Trees. This alternative would result in the same ~~slightly reduced similar~~ impacts to trees as the building footprint would remain unchanged and a debris basin would still be required.~~, approximately 5% to 10% fewer trees would be lost under this alternative as compared to the Project~~. The same mitigation measures would be required as for the Project. Therefore, impacts would be similar to the Project ~~and less than significant.~~ as a result of loss of the oak-walnut woodland, conservatively considered to be significant with respect to Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that forage the Development Site on occasion.

Birds and Other Native Species. This alternative would result in the same ~~similar~~ impacts to biological resources in general as the Project since the grading and building footprint would remain ~~approximately~~ the same. The same mitigation measures would be required as for the Project. Therefore, impacts would be similar to the Project ~~and less than~~ -- Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that forage on the Development Site on occasion.

Cultural Resources

This alternative would result in the same area of disturbance. Therefore impacts would be the same as the Project and less than significant with mitigation.

Geology, Soils and Hydrology

Grading. This alternative would result in the same level of grading and soil export as ~~approximately 129,000 cubic yards with approximately 123,000 cubic yards of export~~ as ~~compared to 135,000 the~~ 140,000 ~~cubic yards of grading and export under~~ the Proposed Project. Impacts for this alternative and the Project would be less than significant with mitigation incorporated.

Seismicity. This alternative would result in fewer people using the Development Site should a seismic event occur, as there would be fewer spaces and no ~~athletic~~ practice field. The structure would comply with applicable codes and impacts would continue to be less than significant as with the Project. Impacts would be less than the Project.

Hydrology. Impacts to hydrology would be the same as ~~similar to~~ the Project as the footprint of the parking structure would be the same and the same area of impermeable surfaces would be added. Compliance with applicable regulations including the ~~Low Impact Development (~~LID~~)~~ Ordinance would result in less than significant impacts as with the Project.

Water Quality. Impacts to water quality would be similar to the Project but incrementally less due to less intense use of the ~~sit~~ Development Site (fewer parking spaces and no athletic activities). Impacts would continue to be less than significant with mitigation under this alternative as with the Project.

Land Use and Planning

Compatibility with Adjacent Uses. This alternative would result in similar compatibility impacts as the Project. The reduced massing and height of this alternative would make the structure closer in scale to some of the larger buildings on the Campus. Since this alternative would not provide all the spaces anticipated to be needed, increased parking, as compared to the Project but less than currently occurs, would continue in the surrounding neighborhoods. Therefore, land use impacts would be similar to the Project on the Development

Site (and less than significant), but could increase impacts on adjacent uses as compared to the Project, but less than at present.

Consistency with Plans. This alternative would result in similar less-than-significant impacts to land use planning as the Project since the Project would provide a parking use on the site and would still require the approval of a conditional use permit.

Noise

Construction. As this alternative would reduce the amount of construction, the duration of construction noise impacts would be less. However, the anticipated construction noise impact associated with grading would be the same as ~~similar to that of~~ the Project and would be significant ~~(i.e. significant), construction of the structure would occur for an incrementally shorter duration~~.

Operation. Operational noise impacts would be less than the Project, as there would be no ~~athletic~~ practice field ~~(nor any parking)~~ atop the Parking Structure and fewer parking spaces.

Transportation and Circulation

This alternative would not achieve all the benefits of the Project, as additional parking, as compared to the Project, would still occur in the surrounding neighborhoods. This alternative would result in 147 fewer spaces on regular days and 250 during special events as compared to the Project (see **Table 5-1**). The roadway improvements anticipated to occur adjacent to the ~~Project~~ Development Site would not occur, since parking area, and bus staging would still be needed on Coldwater Canyon Avenue. No pedestrian bridge would be included in this alternative ~~Project~~. Rather a crosswalk would be provided at ground level. This alternative would not change the Southern Parking Lot to be a bus staging area. Rather buses would remain on Coldwater Canyon Avenue and parking would remain in the Southern Parking Lot.

TABLE 5-1: ALTERNATIVE 3, REDUCED DEVELOPMENT PARKING

Parking Location	**Existing Parking Supply**	**Project Parking Supply (Regular Day and Special Events*)**	**Alternative 3 Parking (Regular Day and Special Events)**	**Change Alternative 3 to Existing**
On-Campus	578	~~335 (+ 103 for special events)~~ 438	438	-140
Parking Structure	0	750	500	+500
Total	578	~~1,085 (+ 103 for special events)~~ 1,188	938	+360

* The Project would include use of the 103 parking spaces in the Southern Parking Lot for Special Events.

It is anticipated that there would be increased delays associated with having sufficient green time to allow pedestrians to cross Coldwater Canyon Avenue. In addition there would be safety concerns related to children crossing this major thoroughfare along with substantial bus activity in the immediate vicinity of the crossing. Impacts would be greater than the Project but still less than significant.

An analysis was prepared using the signalized intersection analysis methodology provided in the ~~*Highway Capacity Manual* (~~HCM~~)~~ published by the Transportation Research Board to quantify the changes in motorist delay associated with Alternative 3. Unlike the City's ~~Critical Movement Analysis (~~CMA~~)~~ signalized intersection methodology, the HCM methodology allows for consideration of: 1) the presence of pedestrian phasing, and 2) the number of pedestrians crossing a street. For the Project, the pedestrian bridge allows for grade-separated pedestrian movement across Coldwater Canyon Avenue; no separate pedestrian phase is needed to facilitate pedestrian movements across Coldwater Canyon Avenue at the main driveway intersection as at-grade pedestrian crossings would be prohibited.

To evaluate Alternative 3 (no pedestrian bridge), the HCM analysis was used to evaluate the Coldwater Canyon Avenue/main driveway intersection during the AM and PM peak hours based on: 1) the Proposed Project, and 2) ~~with~~ Alternative 3. The HCM analysis incorporated the reduction in traffic signal green time allocated for Coldwater Canyon Avenue, as additional traffic signal time would be needed to allow pedestrians to cross Coldwater Canyon Avenue. Also, based on the anticipated usage of the ~~parking structure~~ Parking Structure, it was assumed that approximately 400 pedestrians would cross Coldwater Canyon Avenue during the peak hour (AM and PM).[8]

The HCM analysis considers the additional vehicle delays as motorists exiting the Harvard-Westlake Campus on the east side of Coldwater Canyon Avenue and the Proposed Parking Structure would be required to wait for the crosswalk to clear prior to turning from these driveways onto Coldwater Canyon Avenue. **Table 5-2** provides a summary of the HCM analysis prepared for the Coldwater Canyon Avenue/main driveway intersection. As shown in Column [2], for conditions with the Project (with pedestrian bridge), the intersection is forecast under the HCM methodology to operate at LOS B during the AM peak hour and LOC ~~C~~ D during the PM peak hour. Column [3] of **Table 5-2** provides the results of the HCM analysis for Alternative 3 (no Pedestrian Bridge). As shown, the intersection would degrade to LOS C during the AM peak hour and would worsen to ~~the~~ LOS ~~E~~ F during the PM peak hour. More specifically, when comparing Alternative 3 to the Project, **Table 5-2** shows that the average motorist delay increases by approximately 12 seconds during the AM peak hour and ~~39~~ 46 seconds during the PM peak hour.

TABLE 5-2: ALTERNATIVE 3, DELAY CAUSED BY GROUND-LEVEL PEDESTRIAN CROSSING

			CMA Analysis (b)		HCM Analysis (c)				
			[1]		[2]		[3]		
		(a)	Future (~~2016~~ 2019) with Project		Future (~~2016~~ 2019) with Project		Future (~~2016~~ 2019) with Alternative ~~4~~3		
No.	**Intersection**	**Peak Hr.**	**V/C**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Change in Delay [(3) – (2)]**
5	Coldwater Canyon Ave./Harvard-Westlake Driveway	AM	~~0.419~~ 0.446	A	~~12.6~~ 12.9	B	~~25.0~~ 25.3	C	12.4
		PM	~~0.967~~ 1.031	~~E~~ F	~~30.1~~ 39.4	~~C~~ D	~~68.9~~ 85.0	~~E~~ F	~~38.8~~ 45.6

(a) AM and PM peak hour analysis based on peak hour of traffic on Coldwater Canyon Avenue coinciding with the student arrival and departure period at Harvard-Westlake School (7:15 AM to 8:15 AM and 2:45 PM to 3:45 PM).
(b) ~~Critical Movement Analysis (~~CMA~~)~~ from Traffic Study.
(c) ~~Highway Capacity Manual (~~HCM~~)~~ used to evaluate changes in intersection operations with and without proposed pedestrian bridge.
(d) Project alternative does not include a pedestrian bridge connecting the Proposed Parking Structure to the Harvard-Westlake Campus on the east side of Coldwater Canyon Avenue. Therefore, pedestrians/students must walk across Coldwater Canyon Avenue at-grade between the Parking Structure and the Harvard-Westlake Campus on the east side of Coldwater Canyon Avenue.
SOURCE: LLG, 2015

8 Assuming 280 cars would enter the garage in the am peak hour, with an occupancy rate of 1.42 people per car. The Harvard-Westlake School's afternoon peak (when the Harvard-Westlake School lets out) would be less (211 vehicles exiting).

Relationship of the Alternative to Project Objectives

This alternative would meet many of the Project objectives but not to the same extent as the Project. Since it would not provide the same amount of parking (one third less than the Project), some of the parking impacts on the adjacent neighborhood that would be removed by the Project would continue to occur under this alternative. It would not meet the objective relating to enhancing ~~playing~~ practice field facilities, to increase opportunities for recreational activities on Campus. In addition, this alternative would not accommodate the relocation of school bus loading and unloading onto the Harvard-Westlake Campus Southern Lot as the Southern Lot would be required for vehicle parking. A street-level crossing would raise safety concerns for children crossing this major roadway.

Conclusion

Alternative 3 would have fewer impacts as compared to the Proposed Project. Construction noise impacts would remain significant but could be incrementally reduced (in duration, but not intensity) compared to the Project. ~~The significant construction air quality impacts would be similar to the Project since the air quality impacts are mainly associated with excavation, which would be the same under the Project and Alternative 3.~~ Aesthetic and lighting impacts would be less than the Project since there would be no ~~athletic~~ practice field and therefore no lighting impacts. Biological impacts, including significant impacts to two sensitive species and significant cumulative impacts to the oak-walnut woodland and associated species, would be the same as the Project. While overall impacts would be less, this alternative would not fully meet Project objectives to provide parking, improve circulation and safety and would not meet the objective to enhance ~~playing~~ practice field facilities, to increase opportunities for recreational activities on Campus.

ALTERNATIVE 4 – SMALLER FOOTPRINT PARKING STRUCTURE, NO ~~ATHLETIC~~ PRACTICE FIELD, ROOFTOP PARKING

Description of Alternative

This alternative would reduce the footprint of the Parking Structure and would include four stories (five levels) of parking including rooftop parking rather than a~~n athletic~~ practice field. It would include the same number of parking spaces (750 spaces) and the pedestrian bridge would remain. This alternative would not include a~~n athletic~~ practice field or the associated lights. This alternative would include low-level security lighting on the top deck. This alternative would include a ~~Pedestrian Bridge~~ pedestrian bridge as with the Project. **Figure 5-4** shows an aerial photograph with a rendering of Alternative 4; **Figure 5-5** shows a street level view of Alternative 4.

Impact Comparison

Aesthetics/Views/Lighting

Visual Quality. Impacts to aesthetic character would be similar or potentially greater than the Project as the massing of the structure would result in less frontage along Coldwater Canyon Avenue but a taller structure (four stories and five levels as compared to three stories and four levels for the Project). ~~But t~~This alternative would not include the rooftop netting, ~~. B~~but it would include rooftop lights,~~ but~~ although the lighting would be in the middle of the structure rather than along the edges. Views of a green practice field as viewed from some homes may be preferred over views of parked cars. Overall, impacts would be similar to the Project and would remain less than significant.

SOURCE: IDG Parkitects, Inc.

Figure 5-3

Alternative 4 -- Smaller Footprint

SOURCE: IDG Parkitects, Inc.

Figure 5-4

Alternative 4 -- Smaller Footprint Rendering of Street Level View

Views. The structure would be visible in similar views as the Project. While there would be no netting enclosure of the field there would be an additional building story. The pedestrian bridge across Coldwater Canyon Avenue (a designated scenic highway in the City ~~of Los Angeles~~) would still be included in this alternative. Substantial landscaping and mitigation of impacts to trees would continue to occur. Impacts would be similar to the Project and would remain less than significant.

Lighting. There would be lighting impacts associated with the security lighting of parked cars, but there would be no nighttime lighting of a~~n athletic~~ practice field atop the structure. Security lighting for parked cars and car headlights would be visible from some adjacent homes and the adjacent open space area. Impacts would be less as compared to the Project and would continue to be less than significant.

Air Quality

Construction. The amount of grading and construction would be less due to the smaller footprint of the structure (approximately 25% smaller footprint resulting in approximately 25% less grading).~~; however, the significant~~ As with the Project, air quality impacts ~~related to grading would remain since daily construction operations~~ would be the same or similar to the Project and less than significant ~~(although the duration would be less)~~. Overall, construction impacts to air quality could be less than the Project since construction duration could be shortened as compared to the Project as a result of the smaller footprint. As for the Project, impacts would be less than significant.

Operation. Operational air quality emissions at the Development Site would be the same as the Project as there would be the same number of parking spaces. As for the Project impacts would be less than significant.

Biological Resources

Trees. This alternative would result in impacts to approximately 20% to 30% fewer trees as compared to the Project since the building footprint would be less thereby impacting a smaller area. However, a debris basin would still be required. The same mitigation measures would be required as for the Project. Although the area of impact would be smaller, conservatively, as for the Project, impacts would be considered significant with respect to loss of oak-walnut woodland resulting in specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species.

Birds and Other Native Species. This alternative would result in fewer impacts to biological resources as compared to the Project since the building footprint would be less thereby impacting a smaller area. The same mitigation measures would be required as for the Project. Although the area of impact would be smaller, conservatively, impacts to oak/walnut woodland and associated species are considered to be the same as the Project -- Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that forage on the Development Site on occasion.

Cultural Resources

This alternative would result in less area of disturbance. Therefore impacts would be less than the Project and would continue to be less than significant.

Geology, Soils and Hydrology

Grading. This alternative would result in fewer impacts to grading (approximately 107,000 cubic yards of grading and 102,000 cubic yards of export as compared to ~~135,000~~ the conservative 140,000 cubic yards of grading and export under the Project) since the building footprint would be smaller and less grading would be required. Therefore, impacts would be less than the Project and would remain less than significant with mitigation.

Seismicity. The same number of ~~s~~parking spaces on the Development Site would result in the same population exposed to on-site geologic hazards for parking, but the population associated with ~~athletic~~ practice activities would not be present (they would remain on the Harvard-Westlake Campus). Therefore impacts would be less than the Project, and would remain less than significant with mitigation.

Hydrology. Similarly ~~it~~ this alternative would result in less impact to hydrology as compared to the Project since the area of impermeable surfaces would be less due to the smaller building footprint. As for the Project, impacts would be less than significant with mitigation.

Water Quality. Impacts to water quality would be similar to the Project since the same number of cars would be parked on the Development Site. The ~~athletic~~ practice field would not be present ~~occur~~ and therefore any minor impacts to water quality that could result from these activities would not occur. As with the Project, compliance with the LID Ordinance would reduce impacts to less than significant.

Land Use and Planning

Compatibility with Adjacent Uses. This alternative would result in fewer impacts to land use as compared to the Project as the footprint would be smaller and the massing of the building would be less. Impacts would remain less than significant as for the Project.

Consistency with Plans. This alternative would continue to provide a parking use on the ~~site~~ Development Site and would still require the approval of a conditional use permit resulting in similar impacts as compared to the Project. Impacts would remain less than significant as for the Project.

Noise

Construction. As this alternative would reduce the amount of grading ~~and construction~~, the duration of construction noise impacts associated with grading would be less but would remain significant. However, the anticipated construction noise impact associated with building the structure would be similar to that of the Project, and would remain significant ~~(i.e. significant)~~, but potentially for a longer duration due to the additional level of parking (although over a smaller area).

Operation. Operational noise impacts could be less than the Project as there would be no ~~athletic~~ practice field atop the Parking Structure. However, this alternative would include rooftop parking that would result in noise from vehicles (including car horns, alarms and slamming doors) particularly at the start and end of the school day, which could annoy some adjacent residents. Nonetheless, as for the Project, operational noise impacts likely would be less than significant.

Transportation and Circulation

This alternative would provide the same parking as the Project and would include similar roadway improvements. Impacts would be the same as for the Project and less than significant.

Relationship of the Alternative to Project Objectives

This alternative would meet the Project objectives related to parking and safety, but would not meet the objective related ~~but not~~ to enhancing ~~playing~~ practice field facilities to increase opportunities for recreational activities on Campus.

Conclusion

Alternative 4 would have fewer impacts as compared to the Proposed Project. Construction noise impacts would remain significant but could be incrementally reduced (in duration, but not intensity) compared to the Project due to decreased grading. Although the area of impact would be smaller, conservatively, impacts to oak-walnut woodland and associated species are considered to be the same as the Project -- Project-specific impacts to sensitive species (San Bernardino ringneck snake and coastal western whiptail) and a cumulatively considerable contribution to loss of oak-walnut woodland habitat and other sensitive species that forage on the Development Site on occasion. The rooftop would be occupied by parking cars rather than a~~n athletic~~ practice field thus eliminating noise associated with athletic activities, but adding noise associated with parking and parked cars (alarms, slamming doors etc.) which could be annoying to some adjacent residents. ~~The significant~~ As for the Project, construction air quality impacts would be less than significant; impacts under this alternative would be of less duration than the Project since less excavation would be needed. Aesthetic and lighting impacts would be less than the Project since there would be no ~~athletic~~ practice field although there would be lighting impacts from low-level security lighting on the rooftop as well as lights from car headlights. While impacts would be less, this alternative would not meet the Project objective to enhance ~~playing~~ practice field facilities and to increase opportunities for recreational activities on Campus.

ALTERNATIVE 5 – EAST SIDE OF COLDWATER CANYON AVENUE – SOUTHERN PARKING LOT, NO PRACTICE FIELD, ROOFTOP PARKING

Description of Alternative

This alternative assumes that a 750-space parking structure would be constructed on the east side of Coldwater Canyon Avenue on the Southern Parking Lot. The structure would be 10 stories plus rooftop parking. There are 103 spaces in the Southern Parking Lot that would be displaced by a parking structure at this location. Under the Proposed Project, these spaces are proposed to be displaced and bus staging is proposed to be located on this lot. Under this alternative, bus staging would remain on Coldwater Canyon Avenue. Given space constraints this alternative would not be able to include a~~n athletic~~ practice field. No pedestrian bridge across Coldwater Canyon Avenue would be needed under this alternative. The walnut trees (~~271~~ 273 trees) on the Development Site would continue to die as part of the natural cycle of tree death and regrowth. **Figure 5-4** shows an aerial photograph with a rendering of Alternative 5. **Figure 5-5** shows a rendering of Alternative 5 looking north along Coldwater Canyon Avenue. **Figure 5-6** shows a rendering of Alternative 5 looking south along Coldwater Canyon Avenue.

Impact Comparison

The following environmental impacts would be expected under the East Side of Coldwater Canyon Avenue – Southern Parking Lot Alternative.

SOURCE: IDG Parkitects, Inc.

Figure 5-5

Alternative 5 -- East Side of Coldwater Canyon Avenue -- Southern Lot

SOURCE: IDG Parkitects, Inc.

Figure 5-6

Alternative 5 -- Rendering Looking North Along Coldwater Canyon Avenue

SOURCE: IDG Parkitects, Inc.

Figure 5-7

Alternative 5 -- Rendering Looking South Along Coldwater Canyon Avenue

Aesthetics/Views/Lighting

Visual Quality. Due to the configuration of this parking lot, the structure would be 10 stories (plus a level of rooftop parking) in order to include all the parking spaces included in the Proposed Project. A 10-story structure would be out of scale with other development on the ~~campus~~ Harvard-Westlake Campus and with the adjacent church. The Development Site would remain in its existing condition, in time it is likely that the Development Site would degrade as walnut trees die and are not replaced. (Under the Proposed Project, removal of ~~all Protected Trees~~ protected trees would be mitigated at a ratio of 4:1.) Therefore, impacts would be greater than the Project and potentially significant, compared to the less-than-significant impacts of the Project.

Views. Views of the ~~campus~~ Harvard-Westlake Campus would change. The new structure would be 10 stories (plus a level of rooftop parking) and would contrast with other development on-Campus. It would dominate views from along Coldwater Canyon Avenue in the immediate vicinity of the Harvard-Westlake Campus and from homes that overlook the Harvard-Westlake Campus. Views of the proposed Development Site would remain as at present. ~~Impacts~~ Therefore, impacts would be greater than the Project and potentially significant, compared to the less-than-significant impacts of the Project.

Lighting. There would be low-level security lighting of the structure. Cars could be parked on the rooftop, so there would be some lighting associated with the car headlights as well as security lighting atop the structure (similar to the security lighting that currently occurs on the lot but at a higher elevation). There would be no new lighting on the Development Site as would occur under the Project. Lighting of the Campus could incrementally increase as compared to ~~at~~ the present, but no new ~~athletic~~ practice field lighting would occur. The lighting atop the structure would be visible to neighbors in the area particularly to the east. However, as with the Project, direct spillover lighting greater than the City standard of 2 footcandles would not occur. Therefore, impacts would be similar to the Project and less than significant.

Air Quality

Construction. Construction air quality impacts would be less than the Project, as this alternative would require much less excavation of soil (1,950 cubic yards as compared to conservatively 140,000 cubic yards with the Project). The structure would hold the same number of cars as the Project but would be taller than under the Project, therefore construction of the structure could take longer. However, overall construction air emissions would be less than the Project due to less grading (9 months of grading and truck activity would not occur) under this alternative (although daily emissions might be similar~~, and potentially significant~~). Alternative 4 air quality impacts would be less than significant, as for the Project.

Operation. Improvements to Coldwater Canyon Avenue that would occur under the Project would not occur under this alternative. Bus operations would continue to occur on Coldwater Canyon Avenue. Air quality impacts from operations ~~Operational impacts~~ would be the same as the Project (less than significant) ~~less than significant~~ ~~as they are~~ and comparable to today.

Biological Resources

Trees. Approximately 15 to 25 ornamental trees on-campus would be impacted by development of the parking structure. Mitigation measures related to replacing trees and protecting birds would be required as are required in the ~~proposed~~ Project. There would be no impacts to the Development Site. The walnut trees on the Development Site would continue to die as part of the natural cycle of tree death and regrowth. Retention of the native landscaping on the Development Site would result in fewer impacts to biological resources as compared to the Project. Impacts to oak/walnut woodland would be less than significant under this alternative as compared to the Project's cumulatively significant impact on oak/walnut woodland.

Birds and Other Native Species. This alternative would result in fewer impacts to biological resources as compared to the Project since the building would be built on an existing parking lot across the street from the Development Site. The same mitigation measures would be required as for the Project. Impacts to birds and other native species would be less than significant under this alternative as compared to the Project's significant impact on two sensitive species and cumulatively significant impact on sensitive species associated with oak/walnut woodland.

Cultural Resources

The Harvard-Westlake Campus would have the same potential for finding resources as the Project. The area of the campus has already been disturbed, although this alternative could involve excavation below levels previously impacted. Therefore, the impacts would be the same as the Project and less than significant.

Geology, Soils and Hydrology

Grading. This location would require approximately 1,950 cubic yards of cut and fill but no export as compared to ~~135,000~~ conservatively 140,000 cubic yards of grading and export under the Proposed Project. There would be no grading of the Development Site. Therefore, impacts would be less than for the Project and would remain less than significant with mitigation.

Seismicity. A geotechnical report would be required to identify appropriate construction techniques for this location. Impacts would be similar to the Project and less than significant with mitigation.

Hydrology. The Harvard-Westlake Campus is already developed and the ~~parking lot~~ Southern Parking Lot is already covered with impervious surfaces therefore hydrologic impacts are not anticipated. Minimal erosion could occur as a result of construction activity. Impacts would be less than the Project and would remain less than significant.

Water Quality. There could be impacts to water quality on the site as a result of construction activity, but required storm water mitigation would reduce such impacts to less than significance. Compliance with the LID ordinance would reduce operational impacts to less than significant. Impacts would be less than the Project as this area of the Harvard-Westlake Campus is already used for parking. As for the project, impacts would be less than significant with mitigation.

Land Use and Planning

Compatibility with Adjacent Uses. Land uses on the ~~campus~~ Harvard-Westlake Campus would intensify. A 10 story (plus rooftop parking) parking structure on the Southern Parking Lot would increase activity on this part of the Harvard-Westlake Campus, but the use would remain the same and would be compatible with adjacent uses (many of the adjacent homes are owned by Harvard-Westlake School). As for the Project impacts would be less than significant.

The Development Site would remain in its present condition. There would be no change in land use from a vacant site to a parking garage and practice field. Impacts to land use would therefore be less than the Project, and less than significant as for the Project.

Consistency with Plans. This alternative would require a Plan Approval under the deemed approved ~~CUP~~ conditional use permit for the Harvard-Westlake School. Impacts would be less than the Project since this part of the Harvard-Westlake Campus is already in use for parking. Impacts would be less than significant as for the Project.

Noise

Construction. Construction noise would occur on-campus and while the location would change, construction noise impacts are anticipated to be significant and unavoidable under this alternative as with the Project. Impacts to St. Michael's Church (which includes ~~the~~ Sunnyside Preschool) would be greater under this alternative due to the proximity of the parking garage. Building construction impacts would be ~~different but likely~~ similar in intensity but of longer duration because of the increased height, under this alternative, although the 9 months of grading required for the Project would not be necessary. Therefore, overall, construction noise impacts would be less than the Project but would remain significant.

Operation. Without a~~n athletic~~ practice field, operational noise impacts could be less than the Project. But noise associated with the parking structure, especially from cars on the rooftop could impact adjacent uses. Noise levels on the Development Site would remain as at present. Impacts would be different but potentially similar to the Project.

Transportation and Circulation

Construction traffic would be substantially less since no export of soil would be required. During construction, the 103 parking spaces in the Southern Parking Lot would be displaced resulting in increased parking on surrounding neighborhood streets. Upon completion of the parking structure, off-site parking would no longer occur during normal operations; there would be 1,225 spaces on-campus. **Table 5-3** shows parking on completion of Alternative 5.

TABLE 5-3: ALTERNATIVE 5, PARKING EAST OF COLDWATER CANYON AVENUE

Parking Location	Existing Parking Supply	Project Parking Supply (Regular Day and Special Events*)	Alternative 5 Parking (Regular Day and Special Events)	Change Alternative 5 to Existing
On-Campus	578	~~335 (+ 103 for special events)~~ 438	1,225	+647
Parking Structure	0	750	In above	In above
Total	578	~~1,085 (+ 103 for special events)~~ 1,188	1,225	+647

* The Project would include use of the 103 parking spaces in the Southern Parking Lot for Special Events.

Circulation improvements to bus staging proposed under the Project would not occur in this alternative. Traffic improvements adjacent to the Project Site ~~may~~ would not occur, and school bus operations would continue to occur along Coldwater Canyon Avenue instead of on the Harvard-Westlake Campus. Therefore, impacts of this alternative would be somewhat greater than the Project since bus operations would remain on Coldwater Canyon Avenue, but less than significant compared to existing conditions, since there would be no change. Project impacts would also be less than significant.

Relationship of the Alternative to Project Objectives

This alternative would not meet Project objectives to the same extent as the Project. During construction, school-related vehicles would continue to park on-street, either on Coldwater Canyon Avenue or in the surrounding residential neighborhoods. Circulation and safety in the vicinity would not be improved, as school buses would continue to park and load/unload students on Coldwater Canyon Avenue. The flow of traffic on Coldwater Canyon Avenue would not be improved since the improvements proposed under the Project would not be constructed. Finally, there would be no increased opportunities for recreational activities on Harvard-Westlake Campus since the ~~proposed athletic~~ practice field would not be constructed. Thus, this alternative would not meet the Project objectives.

Conclusion

This alternative would not meet Project objectives related to improved circulation and enhanced ~~athletic~~ practice fields and recreational opportunities. Protected trees (walnuts) on the Development Site would continue to die (from the infectious ~~fungus disease~~ TCD) without being replaced outside of the natural cycle of tree death and regrowth. Traffic improvements along Coldwater Canyon Avenue adjacent to the Project Site would not be implemented, school buses would continue to load and unload students along Coldwater Canyon Avenue. The On-Campus – Southern Parking Lot alternative would reduce or avoid some of the environmental impacts that would occur under the Project (including significant impacts to two sensitive species and cumulative impacts as a result of loss of oak/walnut woodland), but significant construction noise ~~and air quality~~ impacts would remain.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 5-4 summarizes a comparison of impacts between the Proposed Project and the identified alternatives. Section 15126.6(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be identified among the analyzed alternatives. When the No Project Alternative is identified as the environmentally superior alternative, another environmentally superior alternative shall be identified from among the remaining alternatives. From a strictly environmental standpoint, the No Project Alternative is environmentally superior to the Proposed Project.

Between the remaining alternatives, each alternative reduces some environmental impacts as compared to the Project. Alternative 2 would result in incrementally fewer significant construction noise impacts because 4 residential homes would have less building area than the Parking Structure and therefore ~~fewer air emissions and~~ shorter duration of construction activities. It is also anticipated that construction of four new homes would not result in the impacts to biological resources -- significant impacts to two sensitive species and cumulative impacts as a result of loss of oak/walnut woodland. All other ~~significant,~~ less than significant, and significant but mitigated environmental impacts would be less than under the Project. Therefore, Alternative 2 is identified as the environmentally superior alternative. However, none of the Project objectives would be achieved under Alternative 2.

TABLE 5-4: SUMMARY COMPARISON OF IMPACTS -- PROJECT COMPARED TO EACH ALTERNATIVE

Environmental Impact	**Proposed Project**	**Alternative 1 No Project**	**Alternative 2 Existing Zoning – 4 homes**	**Alternative 3 Two-Level Structure, No ~~Athletic~~ Practice Field, No Lights, No Pedestrian Bridge.**	**Alternative 4 Smaller Footprint Parking Structure, No ~~Athletic~~ Practice Field, Rooftop Parking**	**Alternate 5 East Side of Coldwater Canyon Avenue – Southern Parking Lot, No Practice Field, Rooftop Parking**
AESTHETICS						
Character, Views, Light and Glare	Less than significant with mitigation.	No impact.	Less Less than Significant	Less. Less than significant with mitigation.	Less (smaller footprint, smaller structure, no ~~athletic~~ practice field lights)	**Greater – views and character. Building would be 10 stories (11 levels) and out of scale with adjacent church. Potentially significant.** Less -- lighting; there would be no ~~athletic~~ practice field and no lights.
AIR QUALITY AND GREENHOUSE GAS						
Construction	~~**Significant and unavoidable at six residences.**~~ Less than significant with mitigation.	No impact.	Less. Less than significant.	Comparable. ~~**Significant impact associated with grading remains. Construction reduced in duration.**~~ Less than significant with mitigation.	Less (grading reduced).~~**, but impact would remain significant.**~~ Less than significant with mitigation.	Comparable. ~~**Significant impact associated with grading remains. Construction potentially reduced in duration.**~~ Less than significant with mitigation.
Operation	Less than significant.	No impact.	Greater. Less than significant.	Similar. Less than significant.	Similar. Less than significant.	Similar. Less than significant.
Greenhouse Gas Emissions	Less than significant.	No impact.	Less. Less than significant.	Less. Less that significant.	Less. Less than significant.	Less. Less than significant.
BIOLOGICAL RESOURCES						
Birds	Less than significant with mitigation (except sensitive foraging birds associated with oak-walnut woodland; see impact below).	No impact.	Less. Approximately 50% fewer trees to be removed. Less than significant.	Same ~~Less~~. Same number of ~~5% to 10% fewer~~ trees impacted. Less than significant with mitigation except as noted below.	Less. 20% to 30% fewer trees impacted (less area disturbed). Less than significant except as noted below.	Less (loss of 15 to 25 ornamental trees). Less than significant with mitigation.
Trees	~~129~~ 147 protected trees removed, ~~26~~ 20 encroached upon. Less than significant with mitigation.	No impact.	Less. Less than significant.	Same ~~Comparable~~. Less than significant with mitigation.	Less (less area, fewer trees disturbed). Less than significant with mitigation.	Few if any protected trees would be lost. Less than significant.

TABLE 5-4: SUMMARY COMPARISON OF IMPACTS -- PROJECT COMPARED TO EACH ALTERNATIVE

Environmental Impact	**Proposed Project**	**Alternative 1 No Project**	**Alternative 2 Existing Zoning – 4 homes**	**Alternative 3 Two-Level Structure, No ~~Athletic~~ Practice Field, No Lights, No Pedestrian Bridge.**	**Alternative 4 Smaller Footprint Parking Structure, No ~~Athletic~~ Practice Field, Rooftop Parking**	**Alternate 5 East Side of Coldwater Canyon Avenue – Southern Parking Lot, No Practice Field, Rooftop Parking**
Oak/walnut woodland and associated species	**Significant impact on two sensitive (not listed) reptiles. Cumulative impact on oak/walnut woodland habitat and associated sensitive species.**	No impact.	Less (less area disturbed). Less than significant.	**Same. Significant.**	**Similar. Significant.**	Less. Less than significant.
CULTURAL RESOURCES (ARCHAEOLOGICAL, PALEONTOLOGICAL AND HUMAN REMAINS)						
Archeological, Paleontological and Human Remains Resources.	Low potential for occurrence. Less than significant.	No impact.	Less (less area disturbed). Less than significant.	Same. Less than significant.	Less (smaller area disturbed). Less than significant.	Similar. Less than significant.
GEOLOGY, SOILS AND HYDROLOGY (INCLUDING STORM WATER DRAINAGE)						
Grading	~~135,000~~ Conservatively 140,000 cy export. Less than significant with mitigation.	No impact.	Less (35,250 cy grading, 10,250 cy export). Less than significant.	Same. ~~Less (129,000 cy grading, 123,000 cy export).~~ Less than significant with mitigation.	Less (107,000 cy grading, 102,000 cy export). Less than significant.	Less (1,950 cy cut and fill). Less than significant with mitigation.
Seismic	Less than significant with mitigation.	No impact.	Less. Less than significant.	Less. Less than significant with mitigation.	Comparable. Less than significant with mitigation.	Comparable. Less than significant with mitigation.
Hydrology	Less than significant with mitigation.	No impact.	Less. Less than significant.	Same. ~~Less~~. Less than Significant with mitigation.	Less (less area impacted). Less than significant with mitigation.	Less Less than Significant with mitigation.
Water Quality	Less than significant with mitigation.	No impact.	Less Less than significant.	Less. Less than Significant with mitigation.	Comparable. Less than significant with mitigation.	Less Less than significant with mitigation.
LAND USE						
Consistency with Adjacent Uses	Less than significant.	No impact.	Less. Less than significant.	~~Different~~ Similar. Less than significant.	Comparable. Less than significant.	Less. Less than significant.
Consistency with Plans	Less than significant.	No impact.	Less. Less than significant.	Greater. Less than significant.	Comparable. Less than significant.	Less. Less than significant.
NOISE						
Construction	**Significant and unavoidable for adjacent residences.**	No impact.	Less. Less than significant	**Less. Duration of grading would be less, but noise levels would remain significant.**	**Less. Duration of grading would be less, but noise levels would remain significant.**	**Different location, construction noise impacts remain significant and unavoidable but shorter duration.**

TABLE 5-4: SUMMARY COMPARISON OF IMPACTS -- PROJECT COMPARED TO EACH ALTERNATIVE

Environmental Impact	**Proposed Project**	**Alternative 1 No Project**	**Alternative 2 Existing Zoning – 4 homes**	**Alternative 3 Two-Level Structure, No ~~Athletic~~ Practice Field, No Lights, No Pedestrian Bridge.**	**Alternative 4 Smaller Footprint Parking Structure, No ~~Athletic~~ Practice Field, Rooftop Parking**	**Alternate 5 East Side of Coldwater Canyon Avenue – Southern Parking Lot, No Practice Field, Rooftop Parking**
Operation	Less than significant.	No impact.	Greater Less than significant	Less Less than significant	Comparable/different. Less than significant.	Comparable/different. Less than significant.
TRANSPORTATION, CIRCULATION AND PARKING						
Traffic	No impact.	No impact.	Greater. Less than significant	Greater. Less than significant	Same. Less than significant.	Greater. Less than significant.

Bolded indicates significant impact.

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