



DRAFT ENVIRONMENTAL IMPACT REPORT

3003 Runyon Canyon

Environmental Case: ENV-2016-4180-EIR
State Clearinghouse No.: 2018041016

Project Location: 3003 Runyon Canyon Road, Los Angeles, California, 90046

Community Plan Area: Hollywood

Council District: 4 - Ryu

Project Description: The irregular shaped Site is located within the Runyon Canyon Park area of the City and is approximately 0.5 miles south of Mulholland Drive in the Hollywood Hills. In particular, the Project Site is just west of US Highway 101 and the Hollywood Bowl landmark. The total area that composes the Project Site is approximately 197,435 square feet (approximately 4.5 acres). The Project Site is almost entirely vacant with the exception of an existing single-family residence known as the Headley/Handley House. The Headley/Handley House was designated a Los Angeles Historic-Cultural Monument (HCM) #563 on July 14, 1992; therefore, the Headley/Handley House is a "historical resource" pursuant to CEQA and subject to the provisions of the City of Los Angeles Historic Preservation Ordinance.

The Project proposes the construction of a multi-level, single-family residential structure along the western side of a modified prominent ridge on the Project Site. The proposed building would include a basement, first floor area, and second floor area totaling 8,099 square feet in size not including the basement, which is excluded by the Department of Building and Safety. There would also be an attached four-car garage. The existing historical structure would remain intact and is located on the opposing eastern facing side of the modified prominent ridge. As part of the Project, the owner is requesting that the existing structure be reclassified as Accessory Living Quarters. Vehicular access to the Project would be provided via a driveway along North Runyon Canyon Road.

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I. Executive Summary

In accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15123, this section of this Draft Environmental Impact Report contains a summary of the 3003 Runyon Canyon Project (Project) and its potential environmental effects. More detailed information regarding the Project and its potential environmental effects is provided in the following sections of this Draft EIR. Also included in this section of this Draft EIR is an overview of the purpose and focus of this Draft EIR, a general description of the Project and proposed entitlements, a description of the organization of this Draft EIR, an overview of the Project, a general description of areas of controversy, a description of the public review process for this Draft EIR, and a summary of the alternatives to the Project evaluated in this Draft EIR.

This section also includes information from the following documents, which are included as Appendices A through C to this Draft EIR:

- A** Initial Study, City of Los Angeles, April 2018.
- B** Notice of Preparation of an Environmental Impact Report and Public Scoping Meeting, City of Los Angeles, April 3, 2018.
- C** Comments Received in Response to Notice of Preparation of an Environmental Impact Report and Public Scoping Meeting.

1. Purpose of this Draft EIR

The purpose of this Draft Environmental Impact Report (Draft EIR) is to inform decision makers and the general public of the potential environmental impacts resulting from the Project and to indicate the manner in which those significant effects can be mitigated or avoided, either through mitigation measures or alternatives to the project. A detailed description of the Project is provided in Section II., Project Description, of this Draft EIR. A description of the environmental setting is provided in Section III, Environmental Setting, of this Draft EIR.

The Project would require approval of certain discretionary actions by the City and potentially by other governmental agencies. Therefore, the Project is subject to environmental review requirements under the California Environmental Quality Act

(CEQA).¹ For purposes of complying with CEQA, the City of Los Angeles is identified as the Lead Agency for the Project.

As described in Section 15121(a) and 15362 of the Guidelines for California Environmental Quality Act (CEQA Guidelines),² an environmental impact report is an informational document which will inform public agency decision-makers and the public of the potentially significant environmental effects of a project, identify possible ways to mitigate any significant environmental effects, and identify and evaluate a reasonable range of alternatives to the project that have the potential to reduce or avoid the project's potential significant environmental effects, while feasibly accomplishing most of the project's basic objectives. When applicable, the Draft EIR recommends feasible mitigation measures that can reduce or avoid significant environmental impacts. This Draft EIR was prepared in accordance with CEQA, the State CEQA Guidelines - Section 15151 of the State CEQA Guidelines, which defines the standards for adequacy of an environmental impact report, states:

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 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.

2. Organization of this Draft EIR

The Draft EIR is organized into eight sections (plus the Appendices) as follows:

Section I. Executive Summary: This section provides an introduction to the environmental review process and a summary of the Project description, alternatives, environmental impact analysis contained in the Draft EIR, and mitigation measures.

¹ Public Resources Code Sections 21000-21178.

² California Code of Regulations Title 14, Chapter 3, Sections 15000-15387.

Section II. Project Description: This section provides a description of the Project including location, Site characteristics, Project characteristics, Project objectives, and required discretionary actions.

Section III. Environmental Setting: This section provides an overview of the environmental setting of the Project, including a description of existing and surrounding land uses, and a list of related projects.

Section IV. Environmental Impact Analysis: This section examines the potential environmental impacts of the Project. Separate discussions are included which address the potential environmental effects of the Project by environmental topic. Each environmental topical analysis contains a discussion of existing conditions, an assessment and discussion of the potential significance of impacts associated with the Project, mitigation measures, cumulative impacts, and the level of significance of the impact after mitigation.

Section V. Alternatives to the Project: This section includes an analysis of a range of reasonable alternatives to the Project. The alternatives selected are based on their potential ability to feasibly attain most of the basic objectives of the Project, and their ability to avoid or substantially lessen any of the significant effects of the Project.

Section VI. Other CEQA Considerations: This section provides a summary of the significant and unavoidable impacts of the Project, an explanation of significant irreversible environmental changes, discussion of potential growth inducing effects that would be caused by the Project, and effects not found to be significant

Section VII. Preparers of the Draft EIR and Persons Consulted: This section presents a list of City, County, and other agencies and consultant team members that contributed to the preparation of the Draft EIR

Section VIII. Acronyms and Abbreviations: This section provides definitions for all of the acronyms and terms used in this Draft EIR.

Appendices: The Appendices contain all technical reports prepared for the Project as well as all correspondence with various agencies regarding the Project.

3. EIR Process

a. Notice of Preparation/Scoping Meeting

In compliance with Section 15082 of the CEQA Guidelines, on April 3, 2018, a Notice of Preparation (NOP) was prepared by the Department of City Planning and distributed to the State Clearinghouse, Office of Planning and Research, agencies, and other interested parties. The 30-day response period (i.e., the comment period) for the NOP of the Draft EIR extended until May 3, 2018. Appendix B to this Draft EIR contains a copy of the NOP.

A public scoping meeting was held on April 17, 2018, at the Woman's Club of Hollywood at 1749 N. La Brea Avenue, Los Angeles, CA 90046, from 5:00 PM to 7:00 PM, to obtain the public's input about environmental issues that should be evaluated in this Draft EIR. Appendix C to this Draft EIR contains the written comments to the NOP received by the City. In addition to members of the public, the following agencies, organizations, and individuals provided written comments during the NOP comment period or at the scoping meeting:

(1) Agencies

1. Native American Heritage Commission, May 1, 2018
2. South Coast Air Quality Management District (SCAQMD), May 1, 2018
3. State of California Natural Resources Agency, Department of Fish and Wildlife, May 3, 2018
4. City of Los Angeles, Department of Recreation and Parks, May 29, 2018
5. State of California Natural Resources Agency, Santa Monica Mountains Conservancy, May 21, 2018

(2) Organizations

1. Susan Whittaker Mullins (on behalf of Upper Nichols Canyon Neighborhood Association), May 1, 2018

(3) Individuals

1. Verna Cornelias, April 17, 2018 (at scoping meeting)
2. Ryan Belev, April 17, 2018 (at scoping meeting)
3. Kristine Belson, April 16, 2018
4. Lindee Bower, April 19, 2018

5. Joan Cashel, April 30, 2018
6. Joanna Connor, May 3, 2018
7. Linda Feferman, April 16, 2018
8. Richard Frio, May 1, 2018
9. Joe Gallagher, April 15, 2018
10. Jordana Glick-Franzheim, May 2, 2018
11. Jason Gonzalez, May 1, 2018
12. Alex Hardcastle, May 1, 2018
13. Anastasia Mann, April 23, 2018
14. Chitra Mojtabai, May 9, 2018
15. Mary Robinson, May 1, 2018
16. Lee Rose, May 1, 2018
17. Jennifer Ross, May 3, 2018
18. Rob de Vrij, May 3, 2018
19. Robert Tzudiker, May 1, 2018
20. Meredith Childers, May 1, 2018
21. Thomas Watson, April 17, 2018
22. Jessica Weiner, May 3, 2018
23. Sheldon Willens, May 3, 2018

b. Areas of Concern

Comments raised in letters submitted to the Department of City Planning in response to the NOP include (but are not limited to) the following:

- Construction noise
- Length of construction process
- Project size and uses
- Emergency response
- Pedestrian safety
- Water runoff
- Light and glare
- Impact on wildlife and hiking trails

c. Environmental Issues to be Analyzed in the Draft EIR

In conjunction with the NOP, an Initial Study was prepared for the Project and is included in Appendix A to this Draft EIR. The purpose of the Initial Study, as set forth in Section 15063(c)(3) of the CEQA Guidelines, is to assist the preparation of an Environmental Impact Report, by:

1. Focusing the Environmental Impact Report on the effects determined to be significant;
2. Identifying the effects determined not to be significant;
3. Explaining the reasons for determining that potentially significant effects would not be significant; and
4. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

Based on the Initial Study, the City determined that the appropriate process for analyzing the Project's environmental effects is the preparation of a "Project EIR," the most common type of EIR prepared for specific development projects. This Draft EIR constitutes a "Project EIR" under Section 15161 of the CEQA Guidelines.

Based on a review of environmental issues by the City, the Initial Study, the responses to the NOP, and input received at the public scoping meeting, this Draft EIR analyzes the following environmental issues:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Public Services: Fire
- Transportation
- Tribal Cultural Resources
- Wildfire

d. Environmental Review Process

The Draft EIR will be circulated for review and comment by the public and other interested parties, agencies, and organizations for a period of 45 days. After completion of the 45-day review period, a Final EIR will be prepared that includes written responses to comments on the Draft EIR submitted during the review period and modifies the Draft EIR if required. Public hearings on the Project will be held after completion of the Final EIR. The City will make the Final EIR available to agencies and the public prior to considering certification of the Final EIR. Notice of the time and location will be published prior to the public hearing date. All comments or questions about the Draft EIR should be addressed to:

Erin Strellich
City of Los Angeles, Department of City Planning
221 N. Figueroa St., Suite 1350, Los Angeles, CA 90012
Email: erin.strellich@lacity.org

Case Number: ENV-2016-4180-EIR

4. Summary of the Project

a. Existing Conditions

The Project Site is located within the City's Runyon Canyon Park. The approximately 4.5 acre (197,435 square feet) Project Site is approximately 0.5 miles south of Mulholland Drive and just west of US Highway 101 and the Hollywood Bowl landmark in the Hollywood Hills. Vehicular access to the Project Site is provided via an existing driveway along North Runyon Canyon Road (a paved fire road that is closed to public motor vehicle access), which is accessed from Mulholland Drive. Within Runyon Canyon Park, pedestrians and hikers also access Runyon Canyon Road and also numerous smaller hiking trails throughout the park. The Project Site is almost entirely vacant, with the exception of an existing single-family residence known as the Headley/Handley House, which was designated as Los Angeles Historic-Cultural Monument (HCM) #563 on July 14, 1992. This existing historical structure would remain intact with development of the Project.

b. Proposed Development

The Project proposes the construction of a multi-level, single-family residential structure along the western side of a modified prominent ridge on the Project Site. The proposed building would include a basement, first floor area, and second floor area

totaling approximately 8,099 square feet in size not including the basement, which is excluded from floor area calculations by the Department of Building and Safety.³ The proposed building would also include approximately 2,475 square feet of mechanical/electrical area, and approximately 6,454 square feet of covered patio area. There would also be an attached four-car garage. The existing historical structure (the Headley/Handley House) would remain intact and is located on the opposing eastern facing side of the modified prominent ridge. As part of the Project, the Headley/Handley House would be reclassified as Accessory Living Quarters. There is an existing pool and patio area associated with the existing structure, which would remain as part of the Project. The new building would become the primary residence on the Project Site and the historic residence would act as a guest house for the owner.

5. Summary of Environmental Impacts

a. Aesthetics

(1) Scenic Resources

As discussed in Section IV.A (Aesthetics), the Project has been designed such that the proposed home would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property, and is completely hidden from Mulholland Drive. Overall, the Project has been designed in an organic aesthetic and has been designed to meet the requirements of the Mulholland Scenic Parkway Specific Plan (MSPSP) and Hillside Ordinance standards for height, sensitivity to topography, and bulk of structures. As such, the Project's impacts with respect to scenic resources would be less than significant.

(2) Visual Character

As discussed in Section IV.A (Aesthetics), the only face of the residence that would be visible is on the western elevation. Additionally, the view of the western elevation is only available from limited vantage points on the hiking trail looking to the north and east. Therefore, as the Project would develop a use consistent with other surrounding residential uses, and as the Project would be built into the hillside sitting below the disturbed ridgeline and only viewable from limited vantage points, Project impacts with respect to visual character would be less than significant.

³ *Including the basement, the total square footage of the proposed residence would be approximately 13,306 square feet. However, as discussed above, the Department of Building and Safety excludes the basement from the square footage calculation.*

(3) Light and Glare

As discussed in Section IV.A (Aesthetics), the Project has been designed to be built into the hillside with 5- to 10-foot roof overhangs over the windows and patios of the proposed home, and all exterior lighting would be directed inward where possible. Overall, exterior lighting would be minimized and interior lighting would be designed to be compatible with the surrounding area. Therefore, impacts with respect to lighting would be less than significant. Regarding glare, the Project has been designed with low reflective façade materials used on the exterior of the home, which would ensure that the Project does not create glare. As such, Project impacts with respect to glare would also be less than significant.

b. Air Quality

(1) Consistency with Air Quality Management Plan (AQMP)

As discussed in Section IV.B Air Quality, the Project would not increase the population in the South Coast Air Basin. In addition, the SCAQMD has accounted for growth that is consistent with the local General Plans and SCAG's RTP and identified a strategy and corresponding control measures that accommodate such growth in emissions and offset them in order to help achieve attainment of regional ozone and other clean air standards. Further, the Project would be consistent with the applicable policies contained in the Air Quality Element of the City's General Plan. Finally, as discussed in Section IV.B, Air Quality, the Project's impacts with respect to air quality would be less than significant and therefore the Project would not cause a new air quality violation nor increase the severity of an existing violation. As such, the Project does not conflict with the growth assumptions in the regional air plan and this potential impact is considered less than significant.

(2) Construction Emissions

As discussed in Section IV.B Air Quality, the Project would generate construction-related emissions that fall below the SCAQMD's significance thresholds. Therefore, Project impacts related to construction emissions would be less than significant.

(3) Operational Emissions

As discussed in Section IV.B Air Quality, operation of the Project would generate emissions below SCAQMD's significance thresholds. Therefore, Project impacts related to operational emissions would be less than significant.

c. Biological Resources

(1) Special Status Species

As discussed in Section IV.C (Biological Resources), no special status plants were detected during focused surveys, and therefore no impacts to special-status plants would be associated with the Project. In addition, no special-status wildlife species were detected during general wildlife surveys. Two special-status species, coastal western whiptail and coast horned lizard, have low to moderate potential to occur within the fuel modification zone and mixed chaparral habitat within the Project area. Due to the limited area of impact, if either of these species were to occur on the Project Site, it would be in very low numbers, and impacts that could occur from the Project would be less than significant.

(2) Wildlife Movement

As discussed in Section IV.C (Biological Resources), due to the Project Site's location surrounded by open space, the Project would not appreciably affect the movement of local species using the Site, and impacts related to wildlife movement would be less than significant. In addition, the study area currently contains groundcover, trees, and shrubs that have the potential to support nesting birds. However, avian surveys were conducted within raptor nesting season and nesting raptors were not observed. To the extent that vegetation removal activities must occur during the nesting season, a biological monitor will be present during the removal activities to ensure that no active nests would be impacted. If any active nests are detected, the area would be flagged with a buffer, and the area would be avoided until the nesting cycle has been completed. Mitigation Measure BIO-MM-1 would ensure that a qualified biologist monitor conducts pre-construction surveys for nesting birds prior to the initiation of clearance/construction work if work occurs during nesting season. With implementation of Mitigation Measure BIO-MM-1, impacts to nesting and migratory birds would be less than significant.

a. Mitigation Measure

BIO-MM-1 The following requirements under the MBTA and California Fish and Game Code Sections 3503.5, 3503, and 3513 are to be implemented to ensure that nesting birds are not harmed during Project construction. It should be noted that raptor species are not expected to nest within the Development Area due to a lack of suitable habitat:

1. If feasible, the removal of vegetation should occur outside of the nesting season, generally recognized as March 15 to August 31 (potentially earlier for raptors). If vegetation removal must occur during the nesting

season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests. The biologist shall establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will consist of 50 feet for non-raptors and 300 feet for raptors.

2. If for some reason it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no nesting birds are found, the vegetation can be removed. If nesting birds are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

(3) Local Policies or Ordinances

As discussed in Section IV.C (Biological Resources), there are no native protected tree species on-site. However, there are a total of 96 non-protected significant trees on the Site and 17 of these trees are recommended for removal. These trees are in close proximity of the proposed construction and will not tolerate the encroachment. Thus, the Project would remove the existing non-native trees on the Project Site and would provide replacement trees. In addition, one additional tree, a California walnut tree, which is subject to the protected tree ordinance of the City of Los Angeles, occurs within the Study Area. However, this tree is completely avoided by the Project and associated fuel modification boundary. Nevertheless, the Project would include Project Design Feature BIO-PDF-1, which would ensure that this tree is not impacted by any construction activities. Therefore, impacts with respect to protected trees would be less than significant.

d. Cultural Resources

(1) Historical Resources

As discussed in Section IV.D (Cultural Resources), the Project does not propose to demolish, relocate, or physically alter the Headley/Handley House. Therefore, the Project would not have a direct impact on any historical resources. In addition, the Project is consistent with the *Secretary of the Interior's Standards for Rehabilitation*, and is

designed in a manner sensitive and sympathetic to the existing historic residence. Therefore, the Project's impact on historical resources would be less than significant.

(2) Archaeological Resources

As discussed in Section IV.D (Cultural Resources), there are no known archaeological resources within the Project Site. In the event of the discovery of previously unknown archeological resources during construction, the Project would comply with the requirements of California Public Resources Code Section 21083.2. Through compliance with the existing regulatory requirements, Project impacts to unknown archaeological resources would be less than significant.

e. Energy

(1) Wasteful, Inefficient, or Unnecessary Consumption of Energy

As discussed in Section IV.E (Energy), based on the size of the Project, it would result in a demand for approximately 7,976 kilowatt hours (kWh) of electricity (or 7.98 MWh) per year and approximately 27,496 kBtu of natural gas per year. The Los Angeles Department of Water and Power (LADWP) current and planned electricity supplies have the capacity to support the Project's electricity consumption. Additionally, the Southern California Gas Company (SCG) undertakes expansion and/or modification of the natural gas infrastructure to serve future growth within its service area as part of the normal process of providing service and would have adequate existing natural gas supplies to accommodate the Project. The Project would not require the acquisition of additional electricity or natural gas supplies beyond those that exist and are anticipated by the LADWP and SCG, respectively. The Project would be responsible for paying connection costs to connect its on-site service meters to existing utility infrastructure. The Project would be subject to Title 24 requirements of the CCR (CalGreen), would also be subject to the regulations included in the City's Green Building Code (LAMC Chapter IX, Article 1), and beyond these regulatory requirements, the Project would incorporate project design features, including a green roof and water-efficient plantings, all of which would improve energy efficiency and reduce impacts on consumption of energy resources. Thus, although the Project would create additional demands on electricity and natural gas supplies and distribution infrastructure, LADWP and SCG (respectively) would be able to provide service to the Project Site, and the Project's demand for electricity and natural gas would not result in a wasteful or inefficient use of energy. Thus, impacts related to energy infrastructure would be less than significant.

(2) Energy Conservation Plans

As discussed in Section IV.E (Energy), the Project would be subject to Title 24 requirements of the CCR (CalGreen), and would also be subject to the regulations included in the City's Green Building Code (LAMC Chapter IX, Article 1). In addition, the Project would include sustainability features, such as those provided in Project Design Feature GHG-PDF-1. With incorporation of these features, along with compliance with state and local energy efficiency standards, the Project would meet and/or exceed all applicable energy conservation policies and regulations, and impacts would be less than significant.

f. Geology and Soils

(1) Seismic Hazards

As discussed in Section IV.F (Geology and Soils), no known active faults cross or are directed toward the Project Site, nor is the Site located in a currently established Alquist-Priolo (AP) Zone of Required Investigation. Based on a review of the Alquist-Priolo Special Studies Zone for the Hollywood Quadrangle, the closest established fault zones are along the Hollywood Fault and the Newport-Inglewood Fault. Thus, the potential for fault surface rupture at the site is considered low. The Project Site is susceptible to ground motion as a result of potential movement along faults in the region. However, the Project Applicant would be required to design and construct the Project in conformance to the most recently adopted California Building Code (CBC) design parameters. Therefore, Project impacts related to seismic hazards would be less than significant.

(2) Erosion/Loss of Topsoil

As discussed in Section IV.F (Geology and Soils), during construction of the Project, compliance with existing regulations (including preparation of a SWPPP and compliance with NPDES requirements) would ensure that the Project does not result in any significant impacts related to soil erosion. During operation, a greater portion of the Project Site would be developed with impervious surfaces. The Project's inclusion of a green roof would serve to minimize the amount of roof drainage from the Project, and drainage from the Project Site would continue to flow towards storm drains located further down the mountain after construction of the Project, and the Project would comply with the City's Low Impact Development (LID) Ordinance. Thus, Project impacts related to soil erosion would be less than significant.

(3) Geologic Instability

As discussed in Section IV.F (Geology and Soils), the potential for subsidence to occur at the Project Site is considered remote. In addition, the Project Site is not located

within a Liquefaction Zone. Therefore, Project impacts with respect to geologic instability would be less than significant.

(4) Expansive Soils

As discussed in Section IV.F (Geology and Soils), based on soil borings and testing, the potential for expansive soils to occur at the Project Site is low. Any development of the Project Site would be required to be designed and constructed to meet CBC building standards. Conformance with these standards would ensure that Project impacts related to any potential expansive soils would be less than significant.

(5) Septic Tanks

As discussed in Section IV.F (Geology and Soils), the Project Site is not serviced by existing sewers and a private disposal system is proposed as part of the Project. According to the geotechnical report prepared for the Project, seepage pits can be placed in the upper portion of the soils to avoid percolation into surficial materials. Thus, it was concluded that the use of a private sewage disposal system on the Project Site would not adversely affect the stability of the Project Site or adjoining properties, and impacts would be less than significant.

(6) Paleontological Resources

As discussed in Section IV.F (Geology and Soils), there are no known vertebrate fossil localities that lie directly within the Project Site boundaries. However, according to the Museum of Natural History, the southern portion of the Project area has exposures of plutonic igneous rocks that will not contain any recognizable fossils, while the northern portion of the Project area has exposures of a marine late Cretaceous rock unit that has been called the Chico Formation, the Tuna Canyon Formation, or even an unnamed rock unit. It is the opinion of the Museum of Natural History that excavations in the igneous rocks exposed in the southern portion of the Project area will not encounter any recognizable fossils, while excavations in the marine late Cretaceous rocks in the northern portion of the Project area may encounter vertebrate fossils. As such, it is conservatively concluded that the Project has the potential to cause a significant impact to paleontological resources and mitigation is required. With implementation of Mitigation Measure GEO-MM-1, impacts with respect to paleontological resources would be less than significant.

a. Mitigation Measure

GEO-MM-1 During the construction phase and prior to the issuance of building permits, the Applicant shall retain an independent Construction Monitor, who shall

be responsible for coordinating with a certified paleontologist to implement and enforce the following:

1. If any paleontological materials are encountered during the course of Project development, the Construction Monitor, in accordance with GEO-MM-1 shall coordinate with the services of a paleontologist, and all further development activity shall halt and the following shall be undertaken:
 - a. 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.
 - b. In the event of a discovery, or when requested by the Project paleontologist, the contractor shall divert, direct, or temporarily halt ground disturbing activities in an area in order to evaluate potentially significant paleontological resources. The paleontologist shall determine the location, the time frame, and the extent to which any monitoring of earthmoving activities shall be required. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. The Construction Monitor shall also prepare and submit documentation of the Applicant's compliance with Mitigation Measure GEO-MM-1 during construction every 30 days in a form satisfactory to the Department of City Planning. The documentation must be signed by the Applicant and Construction Monitor and be included as part of the Applicant's Compliance Report. The Construction Monitor shall be obligated to report to the Enforcement Agency any non-compliance with the mitigation measure within two businesses days if the Applicant does not correct the non-compliance within a reasonable time of notification to the Applicant by the Construction Monitor or if the non-compliance is repeated. Such non-compliance shall be appropriately addressed by the Enforcement Agency.
2. The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.
3. The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study or report.

4. At the conclusion of monitoring activities, the Project paleontologist shall prepare a signed statement indicating the first and last dates monitoring activities took place, and submit it to the Department of City Planning, for retention in the administrative file for Case No. ENV-2016-4180-EIR. Copies of the paleontological survey, study, or report shall also be submitted to the Los Angeles County Natural History Museum.
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.

g. Greenhouse Gas Emissions

As discussed in Section IV.G (Greenhouse Gas Emissions), the Project would be consistent with applicable GHG reduction strategies, including the City of Los Angeles Green New Deal, Sustainability Plan 2019, and the LA Green Building Code. As a result, given the Project's consistency with State, regional, and City of Los Angeles GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established thresholds of significance, and given this consistency, it is concluded that the Project's impacts are less than significant.

h. Hazards and Hazardous Materials

(1) Emergency Response/Evacuation Plan

As discussed in Section IV.H (Hazards and Hazardous Materials), the Project would prepare a Construction Traffic Management Plan (CTMP), which would formalize how construction would be carried out. Emergency access is currently available to the Project Site via an existing driveway along North Runyon Canyon Road, which is accessed from Mulholland Drive, and also available to the ridge via the hiking trail, which has been recently paved. Emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, Project impacts related to emergency response/evacuation would be less than significant.

(2) Wildland Fires

As discussed in Section IV.H (Hazards and Hazardous Materials), the Project Site is located within a Very High Fire Hazard Severity Zone and is also located within a designated Fire Buffer Zone or Mountain Fire District. However, the Project would only nominally increase the need for fire protection services at the Project Site as the Project

involves an increase in the developed square footage on the Project Site, but not an increase in residents at the Project Site. In addition, the LAFD currently serves both the existing residence on the Project Site and also the hikers in Runyon Canyon Park. Based on the Project Site's location within a Very High Fire Hazard Severity Zone, the Project Applicant currently follows fuel modification requirements and maintains an approximately 2.88 acres of fuel modification zones as required by the LAFD. Finally, the proposed home would include an automatic fire sprinkler system. Therefore, Project impacts associated with wildland fires would be less than significant.

i. Hydrology and Water Quality

(1) Groundwater

As discussed in Section IV.I (Hydrology and Water Quality), according to the geotechnical report prepared for the Project, no groundwater was encountered during site exploration. In addition, the Project does not propose any permanent groundwater wells or pumping activities, and all water supplied to the Project Site would be derived from the City's existing water supply and infrastructure. Therefore, the Project would not deplete groundwater supplies or recharge, and impacts would be less than significant.

(2) Erosion

As discussed in Section IV.I (Hydrology and Water Quality), while the Project Site is located within Runyon Canyon Park along the western side of a previously modified prominent ridge on the Project Site, no natural watercourses, including streams and rivers, exist on or in the vicinity of the Project Site. Drainage from the Project Site currently flows in a southern direction down the Santa Monica Mountains and towards storm drains located further down the mountain, and will continue to do so after construction of the Project at the development site. The Project would also comply with LAMC Chapter IX, Division 70, which addresses erosion control during grading, excavation, and fill activities, as well as the SUSMP, which addresses erosion control through peak-flow reduction and infiltration features. Thus, the Project would not substantially alter the existing drainage pattern of the area surrounding the Project Site such that it would result in substantial erosion or siltation on- or off-site. Therefore, impacts related to erosion would be less than significant.

j. Land Use and Planning

As discussed in Section IV.J (Land Use and Planning), the Project would be substantially consistent with all applicable land use policies, plans, and regulations associated with development of the Project Site, and impacts would be less than significant.

k. Noise

(1) Construction Noise

As discussed in Section IV.K (Noise), LAMC Section 112.05 regulates the maximum noise levels of powered construction equipment operating in or within 500 feet from residential zones. This standard would apply to the Project, which is located within 500 feet of similarly zoned parcels (i.e., “Residential Estate”). As such, compliance with the City’s regulations regarding construction noise would call for the inclusion of best practice measures on the construction site, including equipping construction equipment with exhaust mufflers and/or damping systems that could reduce their noise levels by 3 to 10 dBA. With regulatory compliance with LAMC Section 112.05, the Project would not require mitigation measures during the construction phase, and the Project’s on-site construction noise levels following compliance with Section 112.05 would meet the 75 dBA limit at 50 feet of distance. As a result, the Project’s construction noise impact would be considered less than significant.

(2) Operational Noise

As discussed in Section IV.K (Noise), during operation, the Project would produce noise from both on- and off-site sources associated with use of heating, ventilation, and air conditioning (HVAC) and other mechanical equipment; residential noise, such as conversations, consumer electronics, dogs barking; auto-related noises, such as starting of car engines and doors closing; and traffic noise. All on-site noises, including HVAC and mechanical equipment use, would be subject to the requirements of the City’s Noise Ordinance to ensure compliance with the City’s noise standards. Additionally, the Project would not generate new trips as the occupants who currently live in the house on the Project Site would move into the new single-family residence, with the existing home reclassified as Accessory Living Quarters. Therefore, the Project would not result in an increase in noise as a result of traffic. For these reasons, Project impacts related to operational noise would be less than significant.

(3) Groundborne Vibration

As discussed in Section IV.K (Noise), construction of the Project would require large steel-tracked earthmoving equipment such as bulldozers and graders. However, based on the distance to the nearest residential structures, groundborne vibrations generated by the Project’s on-site construction activities would be nominal and far below any thresholds for building damage or human annoyance. With respect to off-site construction vibration, the potential for annoyance from temporary, intermittent haul truck travel would be minimal, and impacts would be less than significant.

I. Public Services

(1) Fire Protection Services

As discussed in Section IV.L (Public Services – Fire Protection Services), the LAFD is equipped and prepared to deal with construction-related traffic and fires should they occur. Due to the limited duration of construction activities and compliance with applicable codes, Project construction would not be expected to adversely impact firefighting and emergency services to the extent that there would be a need for new or expanded fire facilities in order to maintain acceptable service ratios, or other performance objectives of the LAFD. Therefore, impacts on fire protection services associated with construction of the Project would be less than significant. Additionally, the Project would increase the amount of developed square footage on the Project Site, but would not involve an increase in residents at the Project Site. As the LAFD currently serves the existing residence on the Project Site, and also currently serves the needs of hikers in Runyon Canyon Park, the construction of a new home on the Project Site would only nominally increase the need for fire protection services at the Project Site. The Project would be required to comply with City Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards, thereby ensuring that the Project would not create any undue fire hazard, and the Project would continue to comply with fuel modification requirements. Further, an automatic fire sprinkler system would be included in the proposed residence. The Project would not require the need for new or altered fire station facilities. Therefore, Project impacts related to fire protection services would be less than significant.

m. Transportation

(1) Performance of the Circulation System

As discussed in Section IV.M (Transportation/Traffic), the Project would implement a CTMP, which would ensure that no peak hour construction traffic impacts are expected during Project construction. During operation, the Project is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the Project would result in a less than significant impact with respect to trip generation during Project operation.

Further, as also discussed in Section IV.M (Transportation/Traffic), the Project would not result in any additional transit trips, or in any additional residents who would use bicycle or pedestrian facilities. In addition, development of the Project would not result in any change to the ability of pedestrians and hikers to access Runyon Canyon Road

and the other hiking trails throughout the park, as development would be confined to the Project Site. Therefore, the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and impacts would be less than significant.

(2) Emergency Access

As discussed in Section IV.M (Transportation/Traffic), with implementation of a CTMP, Project impacts with respect to emergency access during construction would be less than significant. During operation, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, impacts related to emergency response/evacuation during Project operation would be less than significant.

n. Tribal Cultural Resources

As discussed in Section IV.N (Tribal Cultural Resources), there are no known tribal cultural resources within the Project Site. Further, based on the Tribal Cultural Resources Assessment prepared for the Project Site (included in Appendix F-5 of this Draft EIR), the Project Site was determined to have a low sensitivity for containing tribal cultural resources. While no tribal cultural resources are anticipated to be affected by the Project, the City has established a standard condition of approval to address inadvertent discovery of tribal cultural resources. A copy of this condition of approval is included in Appendix F-6 of this Draft EIR. Should tribal cultural resources be inadvertently encountered, this condition of approval provides for temporarily halting of construction activities near the encounter and the Project's certified construction monitor notifying the City and Native American tribes that have informed the City that they are traditionally and culturally affiliated with the geographic area of the proposed project. If the City determines that the object or artifact appears to be a tribal cultural resource, the City would provide any affected tribe a reasonable period of time to conduct a site visit and make recommendations regarding the monitoring of future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources. Therefore, impacts to tribal cultural resources would be less than significant.

o. Wildfire

(1) Emergency Response/Evacuation Plan

As discussed in Section IV.O (Wildfire), the Project would prepare a Construction Traffic Management Plan (CTMP), which would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community, including ensuring pedestrian and bicycle safety, as well as

ensuring that, to the extent feasible, Project construction traffic occurs outside of peak traffic hours and that construction activities are scheduled to reduce the effect on traffic flow on surrounding streets (such as Mulholland Drive, which is identified as a disaster route in the General Plan Safety Element). Therefore, construction of the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

During operation, the Project is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move into the new (proposed) single-family residence. Therefore, once constructed, the Project would not result in any changes with respect to traffic on Mulholland Drive (the closest disaster route) when compared to existing conditions. As such, during operation, the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

(2) Exacerbate Wildfire Risks

As discussed in Section IV.O (Wildfire), the Project Site is located within a Very High Fire Hazard Severity Zone and is also located within a designated Fire Buffer Zone or Mountain Fire District. The Project's design, proposed fire hydrant, existing and future fuel modification activities, and compliance with existing regulations regarding development in a VHFHSZ would reduce the flammability of the Project and also facilitate quick containment in the event of a structure fire, so that it would not spread quickly off the Project Site and into the surrounding brush area. Therefore, development of the Project would not exacerbate wildfire risks, and impacts would be less than significant.

II. Project Description

1. Project Location

The Project Site is located at 3003 North Runyon Canyon Road. The Project Site is located in the Hollywood Community Plan (CP) Area and within the Runyon Canyon Park area of the City of Los Angeles. (See Figures III-1 and III-2 in Section III, Environmental Setting, for a regional/vicinity map and an aerial map of the Project Site.) The Project Site's assessor parcel number (APN), zoning, land use designation, and lot size are listed in Table II-1, below.

**Table II-1
Project Site Information**

Address	APN	Zoning	Land Use Designation	Size (square feet)
3003 N. Runyon Canyon Rd.	5572-024-006	RE40-1-H	Minimum Residential	197,435

Source: <http://zimas.lacity.org/>.

2. Existing Site Conditions and Uses

The Project Site is located within Runyon Canyon Park. The approximately 4.5 acre (197,435 square feet) Project Site is approximately 0.5 miles south of Mulholland Drive and just west of US Highway 101 and the Hollywood Bowl landmark in the Hollywood Hills. Vehicular access to the Project Site is provided via an existing driveway along North Runyon Canyon Road (a paved fire road that is closed to public motor vehicle access), which is accessed from Mulholland Drive. Within Runyon Canyon Park, pedestrians and hikers also access Runyon Canyon Road and also numerous smaller hiking trails throughout the park.

The Site is zoned RE40-1-H (Residential Estate, Hillside Ordinance) with a General Plan land use designation of Minimum Residential. The Project Site is also located within the Los Angeles State Enterprise Zone and is located within an Equine Keeping area of the City. The Project Site is also located within the Outer Corridor of the Mulholland Scenic Parkway Specific Plan (MSPSP) area, which is defined as the area between 500-feet and one-half mile from the right-of-way along Mulholland Drive. The Project Site is almost entirely vacant, with the exception of an existing single-family residence known as the Headley/Handley House, which was designated as Los Angeles Historic-Cultural Monument (HCM) #563 on July 14, 1992. This existing historical structure would remain intact with development of the Project. There are no native

protected tree species on-site. There are a total of 96 Non-Protected Significant trees on the Site and 17 Non-Protected Significant trees are recommended for removal.¹ These trees are in close proximity to the proposed construction and would not tolerate the encroachment. In addition, there is one protected tree species, a California walnut tree, which occurs within the greater Project study area. However, this tree is completely avoided by the Project and the associated fuel modification boundary (see Section IV.C, Biological Resources, of this Draft EIR for additional details).

3. Project Characteristics

The Project proposes the construction of a multi-level, single-family residential structure along the western side of a modified² prominent ridge on the Project Site. The proposed building would include a basement, first floor area, and second floor area totaling approximately 8,099 square feet in size not including the basement, which is excluded by the Department of Building and Safety.³ The proposed building would also include approximately 2,475 square feet of mechanical/electrical area, and approximately 6,454 square feet of covered patio area. There would also be an attached four-car garage. The existing historical structure (the Headley/Handley House) would remain intact and is located on the opposing eastern facing side of the modified prominent ridge. As part of the Project, the Headley/Handley House would be reclassified as Accessory Living Quarters. There is an existing pool and patio area associated with the existing structure, which would remain as part of the Project. The new building would become the primary residence on the Project Site and the historic residence would act as a guest house for the owner. Finally, the Project would include the construction of three retaining walls, which would be constructed along the hillside at the mid-point of the northwest portion of the parcel. The height of the retaining walls would be a maximum of 10 feet, and the height would be lower than the current driveway along the northwest portion of the Project Site.

¹ *Protected Tree Report, The Tree Resource, October 25, 2016, included in Appendix E-1 of this Draft EIR.*

² *The original ridgeline was significantly modified by the architect of the Headley/Handley house in the 1930s/1940s; as a result, the current ridgeline has been modified significantly from its original state.*

³ *Including the basement, the total square footage of the proposed residence would be approximately 13,306 square feet. However, as discussed above, the Department of Building and Safety excludes the basement from the square footage calculation.*

See Table II-2, Summary of Proposed Uses, for a breakdown of the Project's proposed uses.

**Table II-2
Summary of Proposed Uses**

Proposed Project	
Basement (Exempt)	5,207 sf
First Floor (Ground)	3,175 sf
Second Floor	4,201 sf
Garage	723 sf
<i>Total Proposed</i>	<i>8,099 sf</i>
Existing Residence	
Accessory Living Quarters	2,018 sf
<i>sf = square feet</i>	
<i>Source: Ameen Ayoub Design Studio.</i>	

Project plans are provided in Figures II-1 through Figure II-5. Elevations are provided in Figures II-6 through II-9, sections are provided in Figures II-10 and II-11, the proposed rendering of the west-facing elevation is provided in Figure II-12.

(1) Height and FAR

The existing zoning for the Project Site allows a maximum height of 30 feet, and the maximum height of the Project would be approximately 17 feet, 8 inches from each level of the structure measured from natural grade. The height of the existing residence on the Project Site is 25 feet. The total Floor Area Ratio (FAR) for the Project (including the existing residence on the Project Site) is 0.07:1.

(2) Design/Architecture

The Project was designed to be built into the hillside and the home itself sits below the disturbed ridgeline on the western slope of the property and is completely hidden from Mulholland Drive. The proposed residence is sited physically within the bluff (partially buried) so that the only face of the residence that would be visible is on the western elevation. It has further been designed in a manner in which the curvilinear structure and rooflines blend in with the natural topography. The proposed home would be an earth-toned color to match the surrounding landscape (consistent with the Mulholland Scenic Parkway Specific Plan Color Wheel), and is designed to appear as a natural land formation in the hillside. The Project has been designed in an earthen shelter manner and includes grass roofs, stone surfaces, and deepened roof overhangs.

The design is also sympathetic to the existing Headley/Handley residence and its character-defining features. The new primary residence has been designed to be subterranean in that it will be cut or “tucked” into the hillside and will be covered with a grass roof. This subterranean siting is intended to reduce the massing and profile. In addition, the proposed residence would be located on the opposite side of the Project Site, such that it is physically separated from the historic residence, in order to preserve the immediate setting of the historic residence. Further, the design of the proposed new residence includes many elements of the organic style, the style of the existing Headley/Handley residence, without attempting to replicate or displace original design elements.

(3) Access and Parking

Vehicular access to the Project Site would be provided via an existing, gated private driveway that serves the Headley/Handley residence, which would be extended to the new garage. The paved, private driveway is accessed from North Runyon Canyon Road, a paved fire road that is closed to public motor vehicle access that runs predominantly north/south through the center of Runyon Canyon Park. North Runyon Canyon Road is gated and accessed from Mulholland Drive. Emergency access is also available to the Project Site from the south via a hiking trail through a private gate and roadway, which has been recently paved.

The Project would be required to provide five parking spaces and five parking spaces would be provided, including a 4-car garage and one off-street parking space.

(4) Lighting

Outside lighting on the Project Site currently consists of light fixtures on the sides of the existing historic building. The Project has been designed to be built into the hillside with 5- to 10-foot roof overhangs over the windows and patios of the proposed home. The windows of the home would be low E-glass and set deep into and under the roof overhangs. Low E-glass windows reduce the overall emissivity of the window, thereby reducing the re-radiated light emitted from the window. Exterior patio lights would be placed only for walking accessibility and would be downward facing and shielded and would not shine into the park or upwards towards the sky. All light would be directed inward, where possible. Overall, the Project has been designed such that exterior lighting would be minimized, and interior lighting would be designed to be confined to the building interior and to avoid lighting air space outside the proposed residence.

(5) Sustainability Features

The Project would comply with the Los Angeles Green Building Code (LAGBC), which is updated every three years and is currently based on the 2016 California Green Building Standards Code (CalGreen) (Part 11 of Title 24, California Code of Regulations). The Project has also been designed to comply with Part 6 of Title 24, California Code of Regulations, with respect to energy efficient shell, roof, and mechanical systems. Finally, as stated above, the Project would also include green roofs that are planted with grass.

4. Project Design Features

The Project would include the following Project Design Features (PDFs):

Project Design Feature AES-PDF-1 The Project has been designed to be built into the hillside, and would include the following design elements:

- Siting within the bluff (physically buried) so that the only face of the residence that is visible is on the western elevation;
- Rooflines designed to blend in with the natural topography;
- Five to ten-foot roof overhangs over the windows and patios; and
- Use of low-E glass windows.

Project Design Feature BIO-PDF-1 Although no impacts to protected trees are anticipated as a result of the Project, the walnut tree within 100 feet of the Project grading limits shall be flagged. Flagging shall be installed under the supervision by the Project Biologist prior to the start of grading and be maintained until completion of construction activity to ensure that the walnut tree is not impacted by any construction activities.

Project Design Feature CUL-PDF-1 The siting and design of the proposed new residence will be in a manner that preserves the integrity of the setting of the Headley/Handley House.

Project Design Feature CUL-PDF-2 Prior to the start of Project construction, the prime contractor and any subcontractor(s) will be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project Site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of

the find will stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the significance of the discovery and develop recommendations for treatment, in conformance with California Public Resources Code Section 21083.2. However, construction activities could continue in other areas of the Project Site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law.

Project Design Feature GHG-PDF-1 The design of the Project shall include, but not be limited to, the following sustainability features:

- Inclusion of green roofs that are planted with grass.
- Water-efficient plantings with drought-tolerant species.

Project Design Feature FIR-PDF-1 A new fire hydrant shall be installed as shown on the approved fire hydrant and access map, stamped as approved on August 9, 2018.

Project Design Feature TR-PDF-1 Construction Traffic Management Plan. Prior to the start of construction, the Project Applicant shall prepare a detailed Construction Traffic Management Plan (CTMP), including street closure information, detour plans, haul routes (if required), and staging plans, and submit it to LADOT for review and approval. The Construction Traffic Management Plan shall include a Worksite Traffic Control Plan, which will facilitate traffic and pedestrian movement, and minimize the potential conflicts between construction activities, street traffic, bicyclists, and pedestrians. The Construction Traffic Management Plan and Worksite Traffic Control Plan shall be based on the nature and timing of specific construction activities and other projects in the vicinity, and shall include, but not be limited to, the following measures:

- Maintain access for land uses in the vicinity of the Project Site during construction;
- Organize Project Site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways;

- Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the Project Site and impact roadway traffic, and if needed, utilize an organized off-site staging area;
- Provide advance notification to adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation;
- Prohibit construction worker or equipment parking on adjacent streets;
- Provide temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities to ensure traffic safety on public rights of way. These controls shall include flag people trained in pedestrian and bicycle safety;
- Schedule construction activities to reduce the effect on traffic flow on surrounding arterial streets;
- Contain construction activity within the Project Site boundaries to the extent feasible;
- Implement safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers as appropriate;
- Limit sidewalk and lane closures to the maximum extent possible, and avoid peak hours to the extent possible. Where such closures are necessary, the Project's Worksite Traffic Control Plan will identify the location of any sidewalk or lane closures and identify all traffic detours and control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity;
- Schedule construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible; and/or
- Prepare a haul truck route program that specifies the construction truck routes to and from the Project Site.

5. Project Construction

(1) Timeline

The anticipated construction schedule is approximately 18 months. It is expected that approximately 14,008 cubic yards of cut and fill would be balanced on-site. Table II-3, below, summarizes the 18-month construction schedule used in this EIR.

**Table II-3
Construction Schedule**

Phase	Duration	Notes
Site Preparation	3 weeks	
Grading/Excavation	1 month	Approximately 14,008 cubic yards of cut and fill would be balanced on-site.
Building Construction	12 months	
Architectural Coatings	3 months	
Paving/Landscaping	1 month	

Source: DKA Planning, 2017.

(2) Haul Route

As provided below under “Discretionary Actions and Approvals,” the Project is requesting a Zoning Administrator’s Determination to allow 28,012 cubic yards of grading (14,008 cubic yards of fill to be relocated on-site with no net export) so no haul route would be required. However, if the Zoning Administrator’s Determination is denied, then a haul route would be required and would follow the following route. Trucks exiting the Project Site would travel to the 101 Hollywood Freeway. For trucks traveling north, they would exit the Project Site and travel east on Mulholland Drive to the 101 Freeway northbound on-ramp. For trucks traveling south, they would exit the Project Site and travel east on Mulholland Drive to the 101 Freeway southbound on-ramp. The proposed haul routes are shown in Figures II-13 and II-14.

6. Project Objectives

The objectives of the Project are as follows:

- To build a new, modern single-family residence while preserving the existing historical structure (the Headley/Handley House) on the Project Site.

- To create a sympathetic home design compatible with the existing house.
- To design a new residence that conforms to the topography, climate, and environment, and is reflective of the Project's location within Runyon Canyon Park.
- To design a new residence that minimizes potential view impacts from within Runyon Canyon and from key viewpoints including Hollywood Bowl outlook.

7. Discretionary Actions and Approvals

In order to implement the Project, the Project is requesting approval of the following discretionary actions from the City:

1. Specific Plan Exception (SPE) to allow construction of a new Single-Family Dwelling to be located within 50 feet of a prominent ridge as specified in the Mulholland Scenic Parkway Specific Plan;
2. Mulholland Specific Plan Project Permit Compliance (SPP) for the Mulholland Scenic Parkway Specific Plan (MSP);
3. Zoning Administrator Determination (ZAD) to allow three (3) retaining walls instead of two (2) retaining walls of up to ten (10) feet;
4. Zoning Administrator Determination (ZAD) to allow 28,012 cubic yards of grading (14,008 cubic yards of fill to be relocated on-site with no net export) so no haul route is required;
5. Certification of an Environmental Impact Report;
6. Haul route approval, if required, only if the Zoning Administrator's Determination to allow additional grading on-site is denied; and
7. Other discretionary and ministerial permits and approvals that may be deemed necessary, including, but not limited to, temporary street closure permits, grading permits, excavation permits, foundation permits, and building permits.

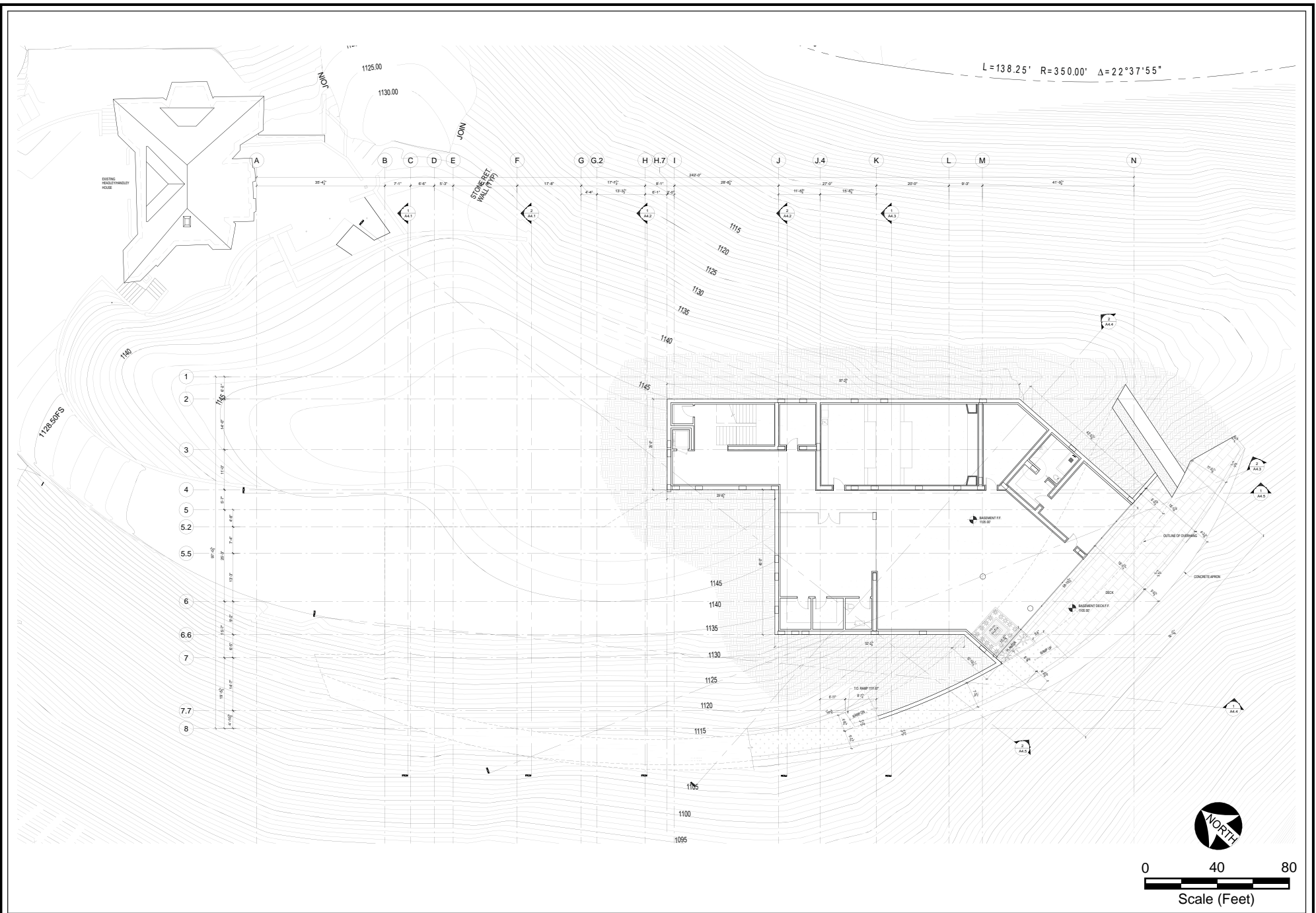
This EIR serves as the environmental document for the City's discretionary actions associated with development of the Project, which are listed above. This EIR is also intended to cover all federal, state, regional and/or local government discretionary or ministerial permits or approvals that may be required to develop the Project, whether or not they are explicitly listed above. State, regional agencies, and City departments and commissions that may have jurisdiction over the Project include, but are not limited to:

City of Los Angeles Agencies:

- Los Angeles Department of Public Works;
- Los Angeles Department of Building and Safety;
- Los Angeles Bureau of Engineering;
- Los Angeles Fire Department;
- Los Angeles Police Department;
- Los Angeles Department of Transportation;
- Los Angeles City Planning Commission; and
- Los Angeles City Council.

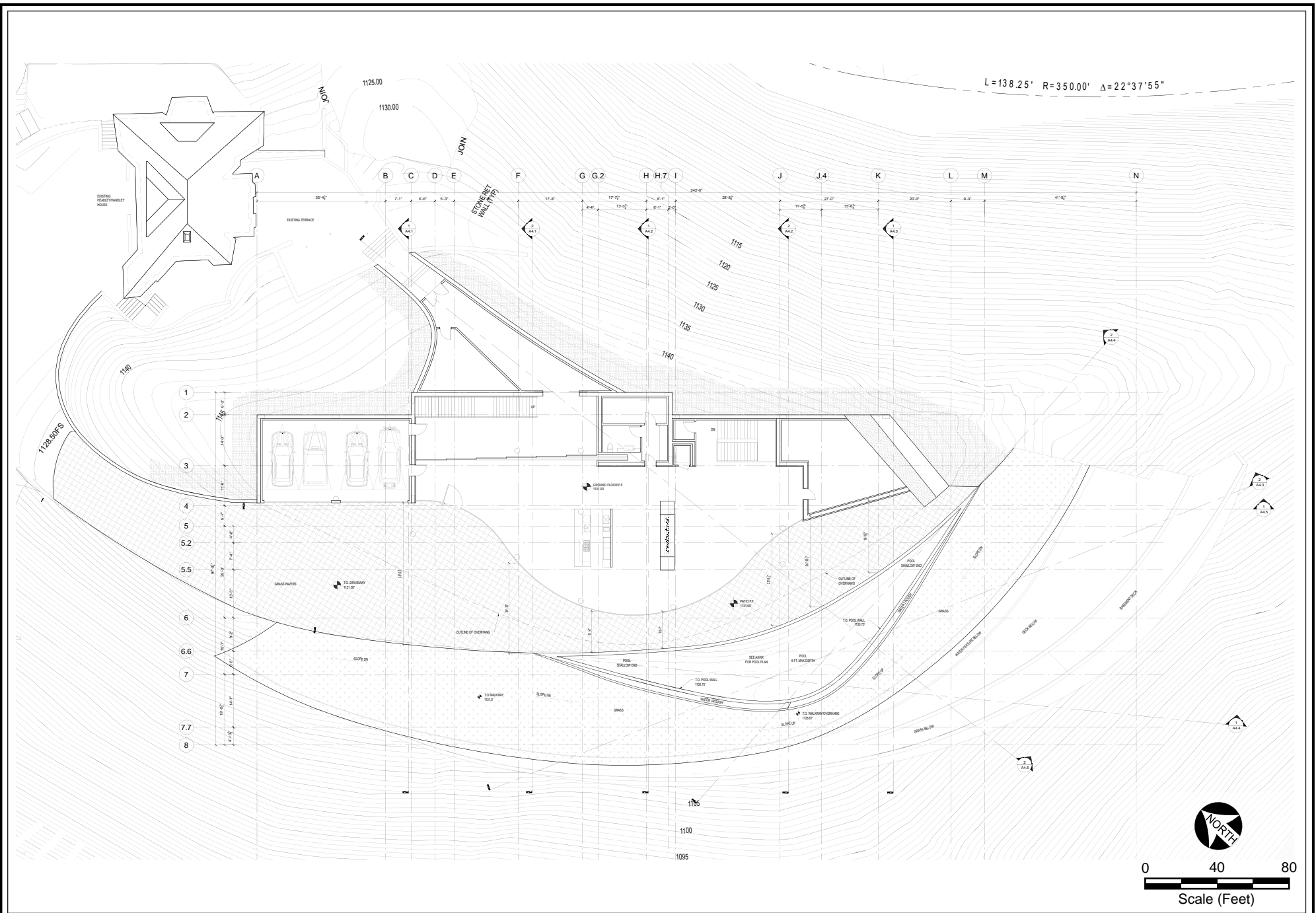
Non-City of Los Angeles Agencies:

- Los Angeles Regional Water Quality Control Board; and
- South Coast Air Quality Management District.



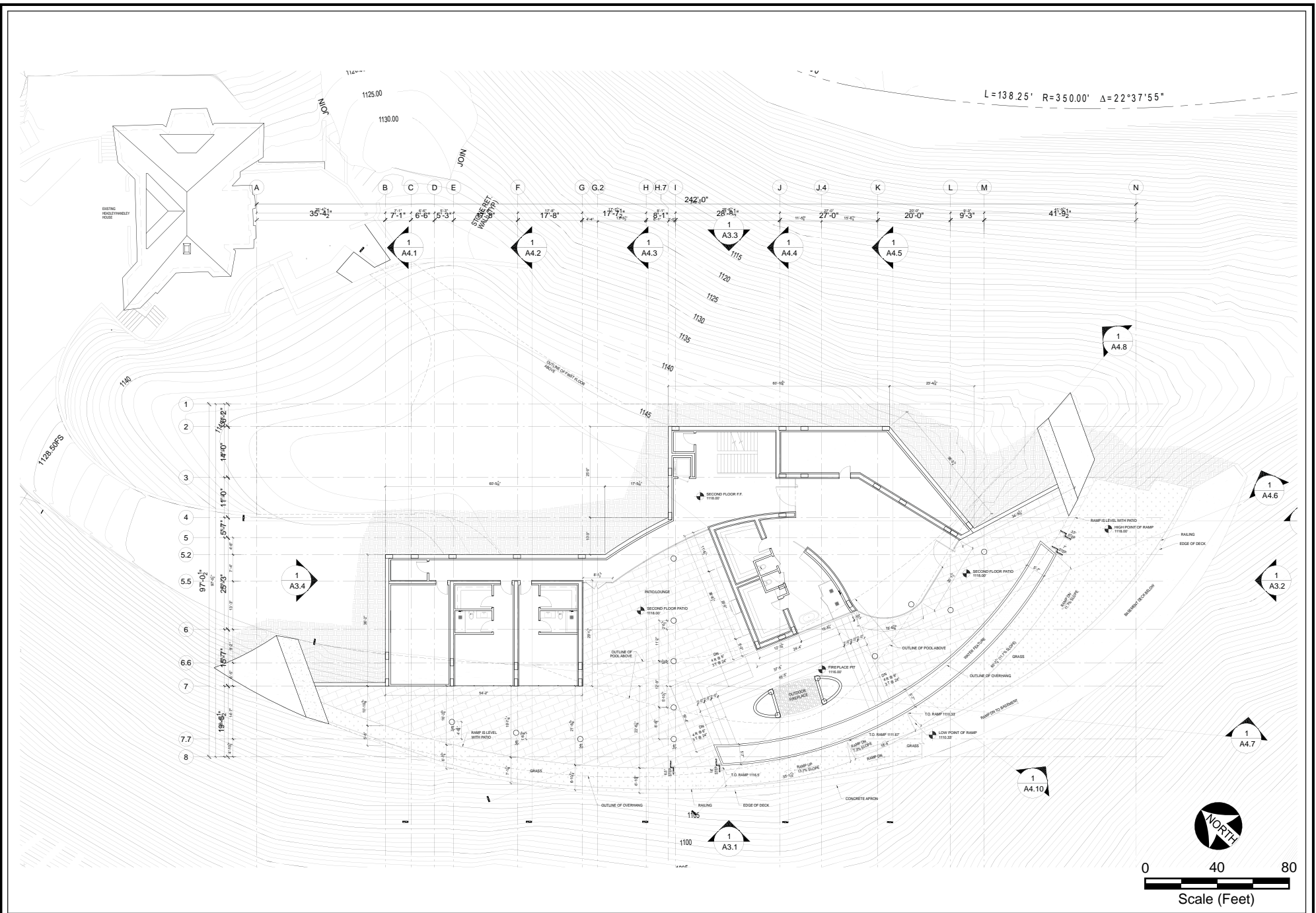
Source: Ameen Ayoub Design Studio, 2018.

Figure II-2
Proposed Basement Site Plan



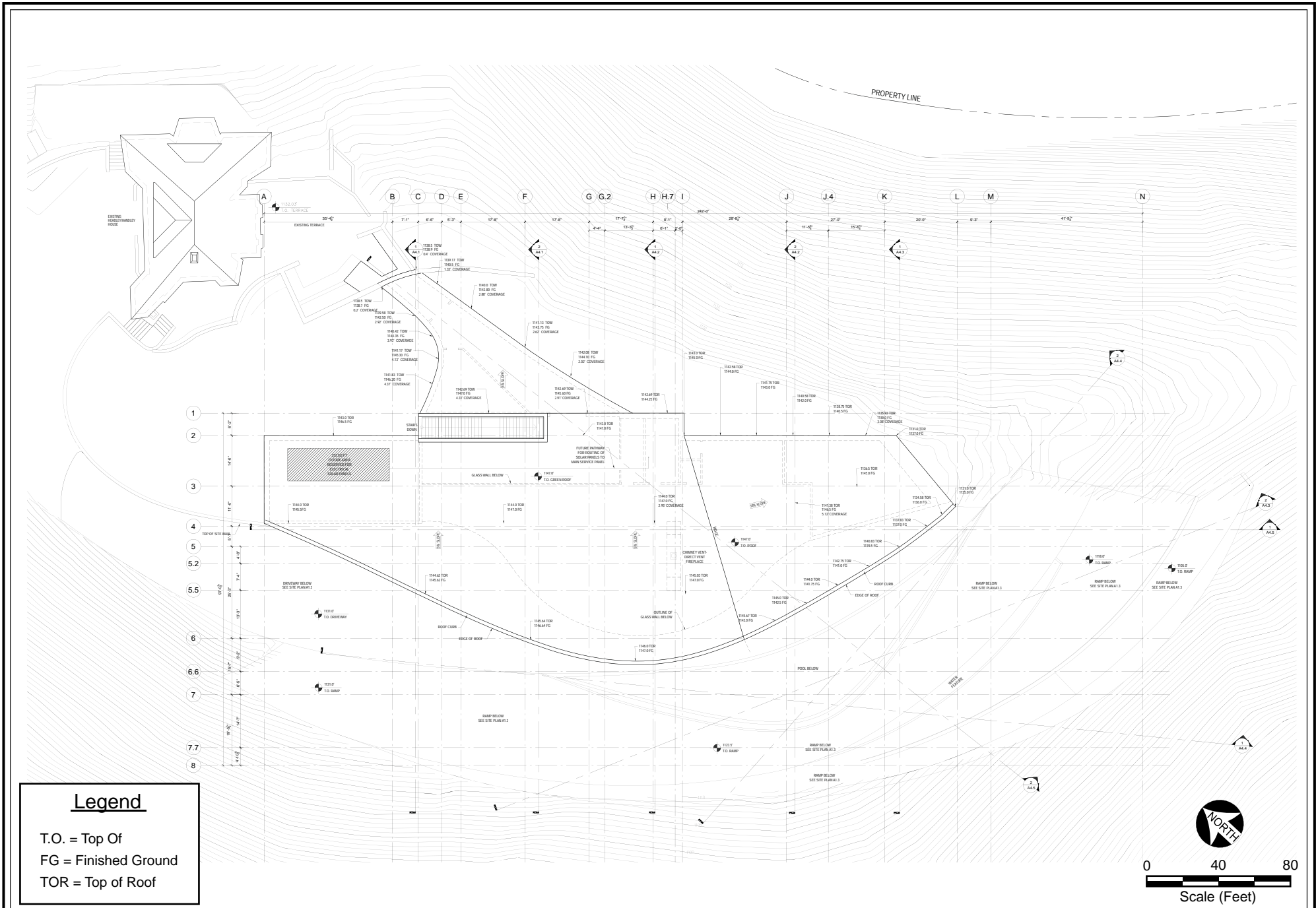
Source: Ameen Ayoub Design Studio, 2018.

Figure II-3
Proposed Ground Floor Site Plan



Source: Ameen Ayoub Design Studio, 2018.

Figure II-4
Proposed Second Floor Site Plan

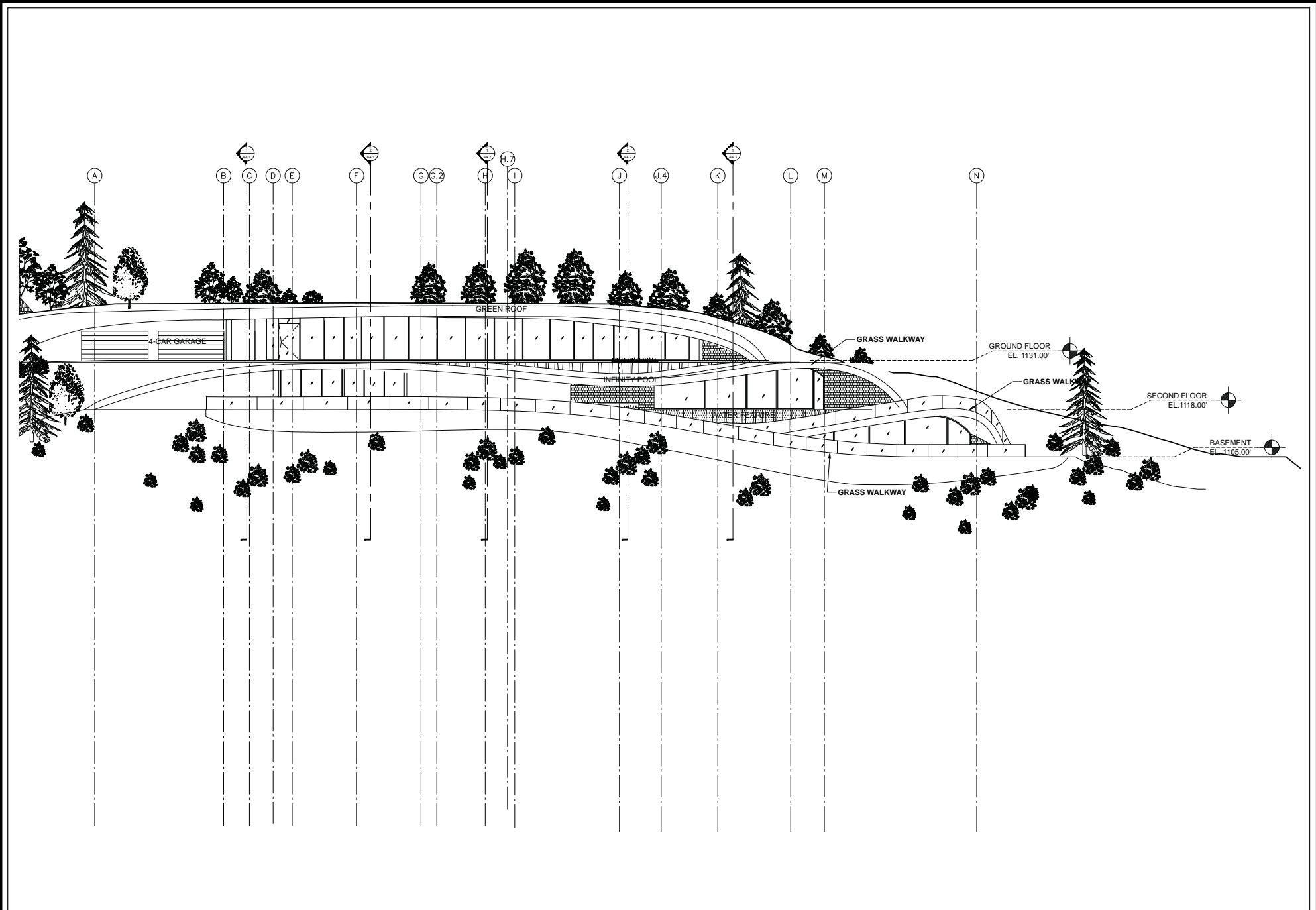


Legend

- T.O. = Top Of
- FG = Finished Ground
- TOR = Top of Roof

Figure II-5
Proposed Roof Plan

Source: Ameen Ayoub Design Studio, 2018.



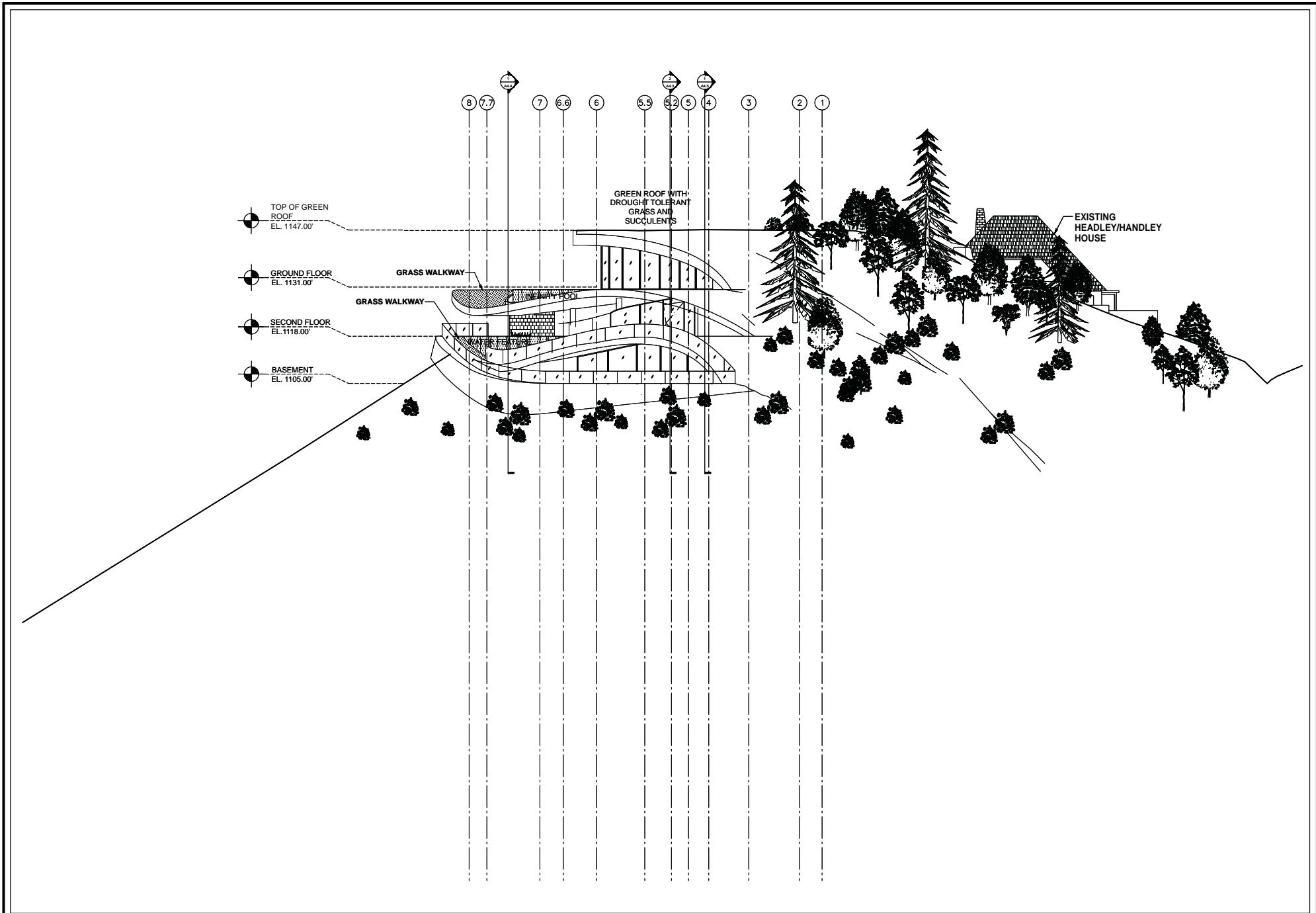


Figure II-7
South Elevation

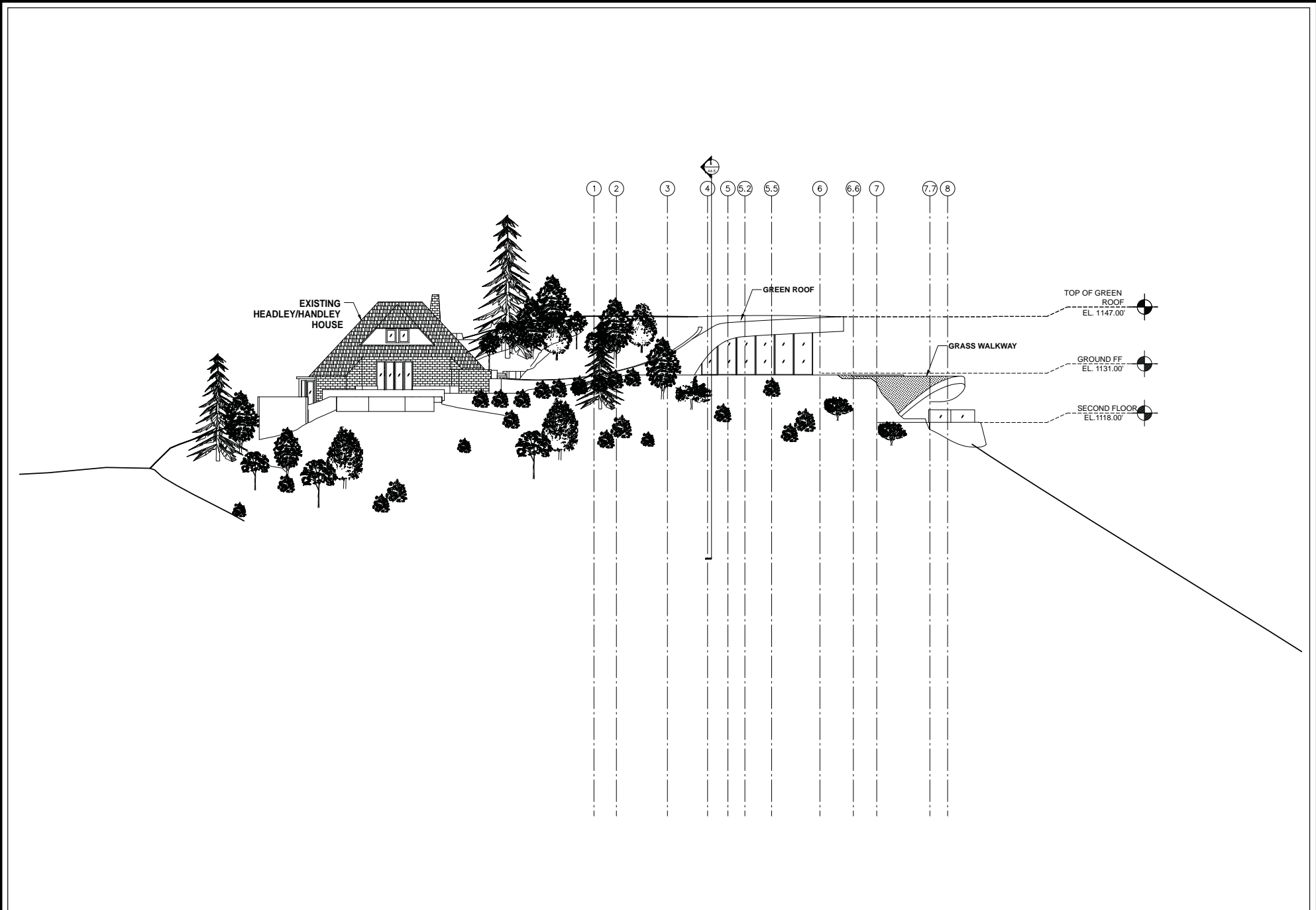
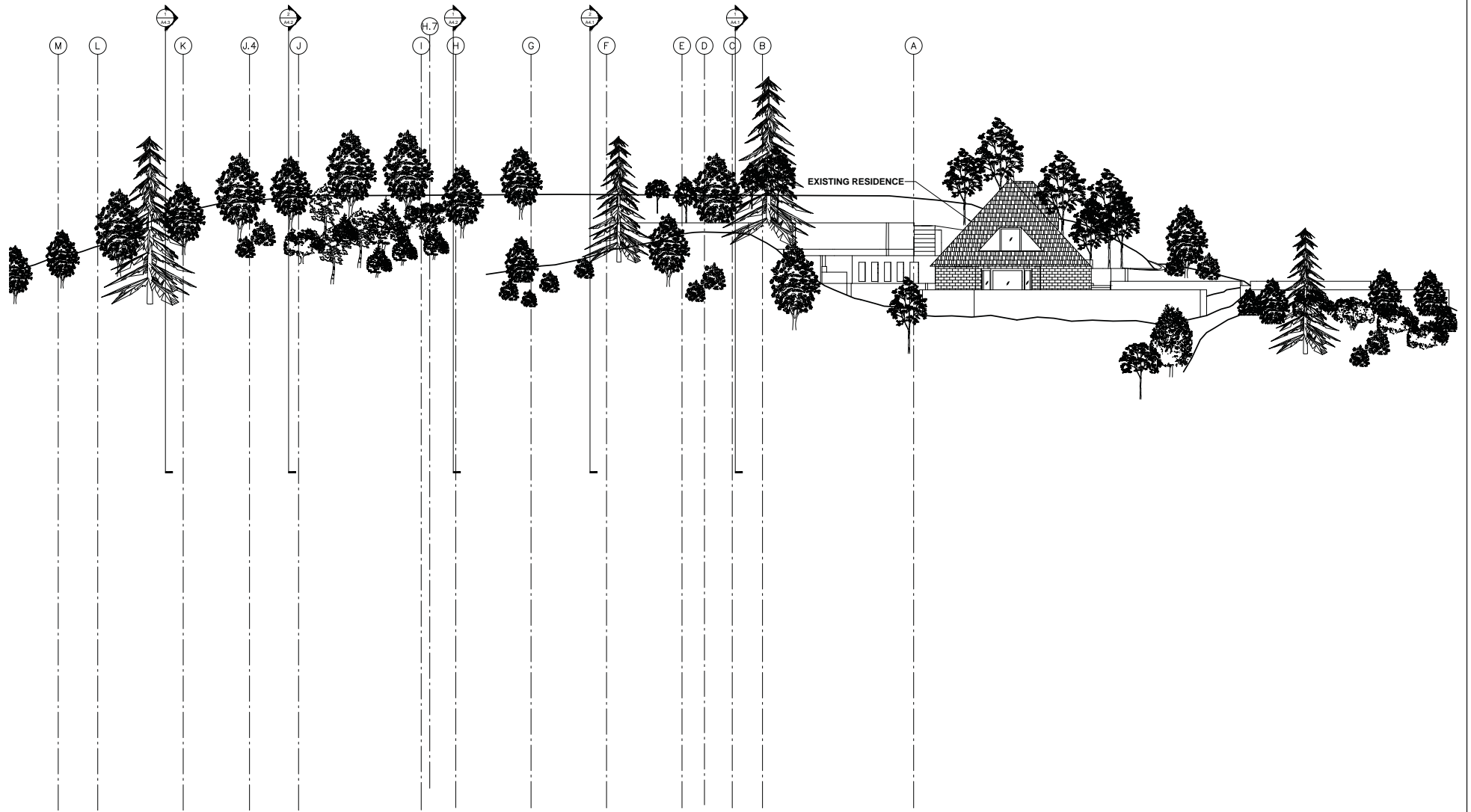
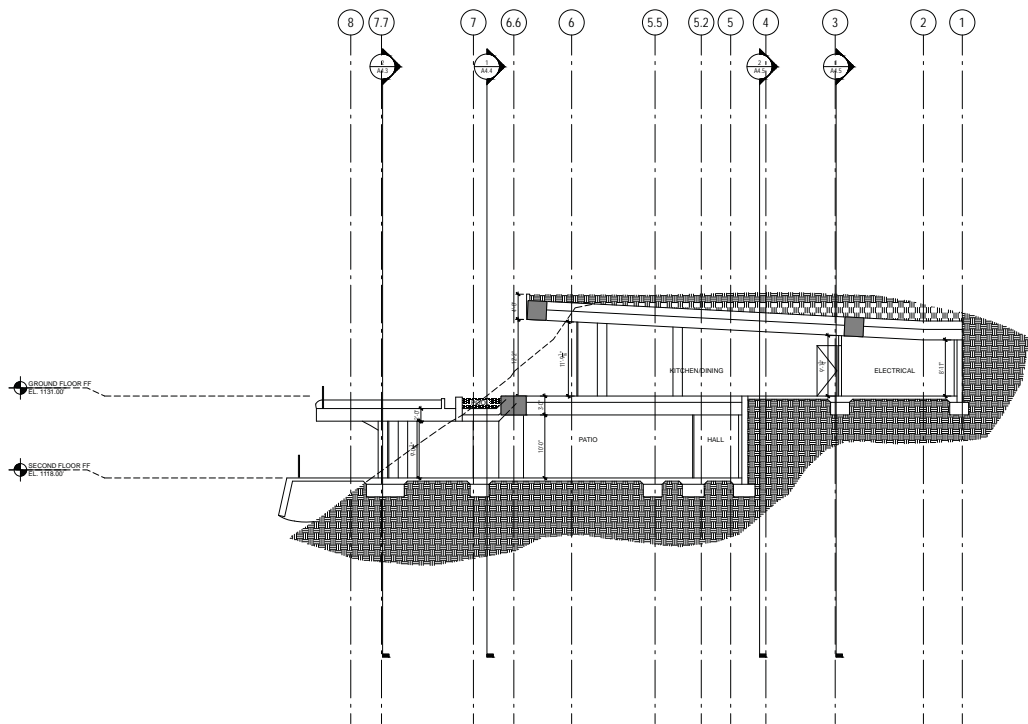
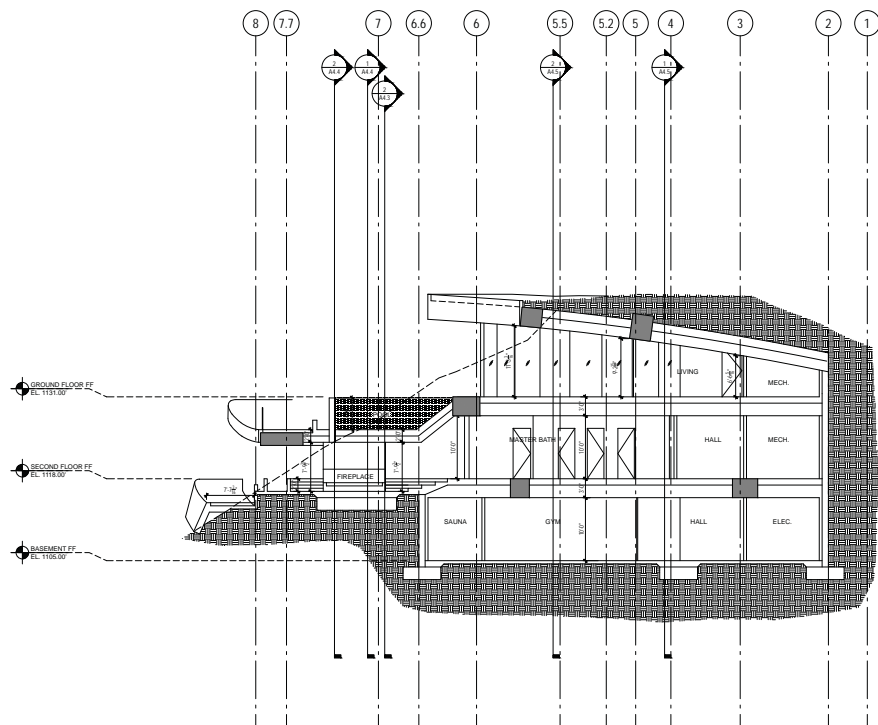


Figure II-8
North Elevation



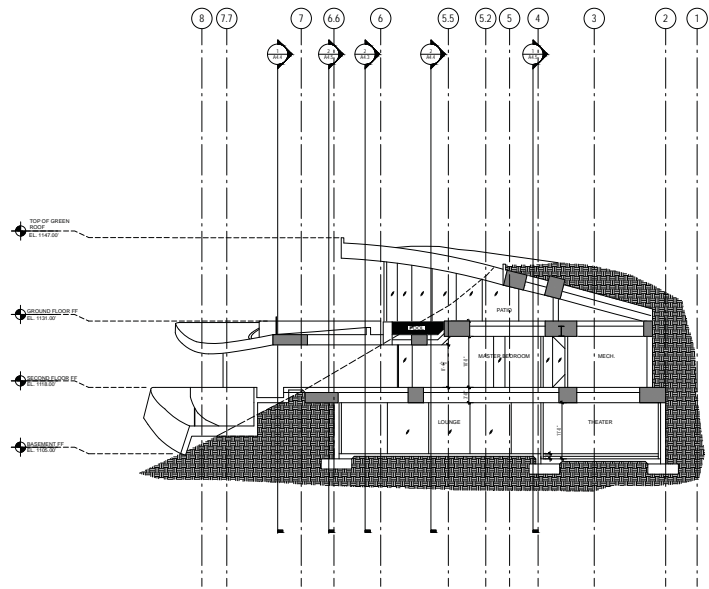


SECTION 1

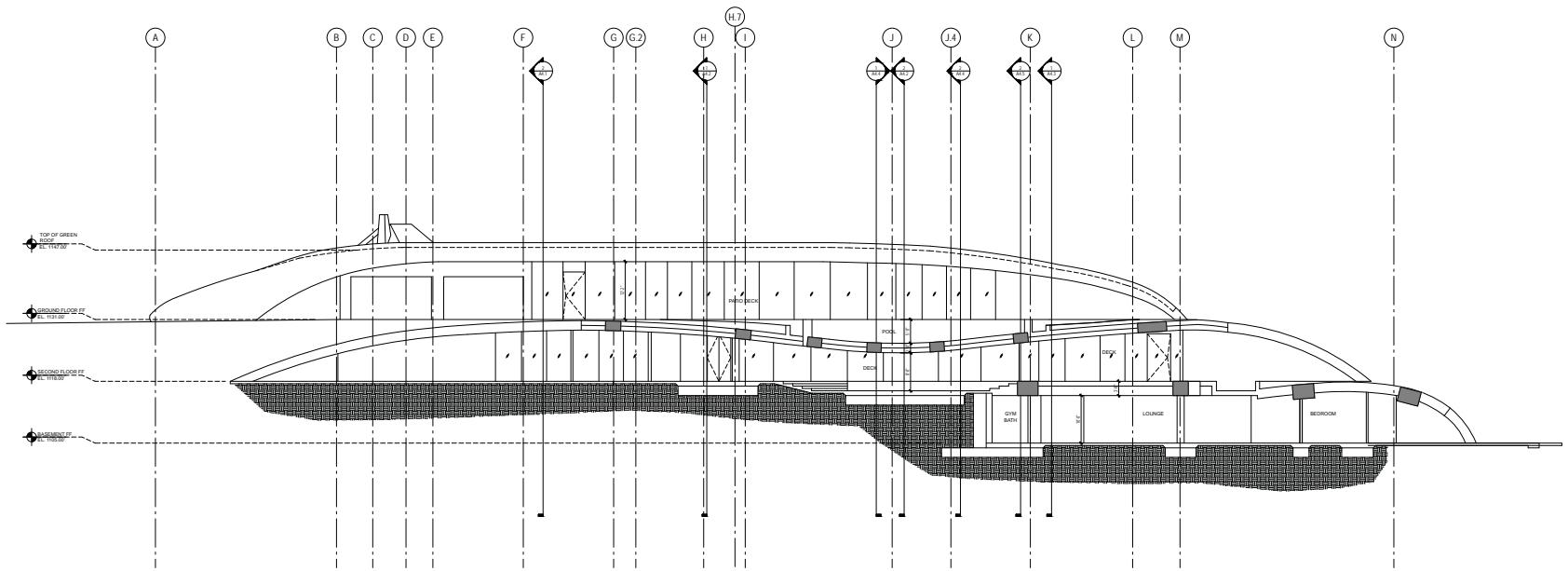


SECTION 2

Figure II-10
Sections 1



SECTION 1



SECTION 2

Figure II-11
Section 2



ameen ayoub
design studio



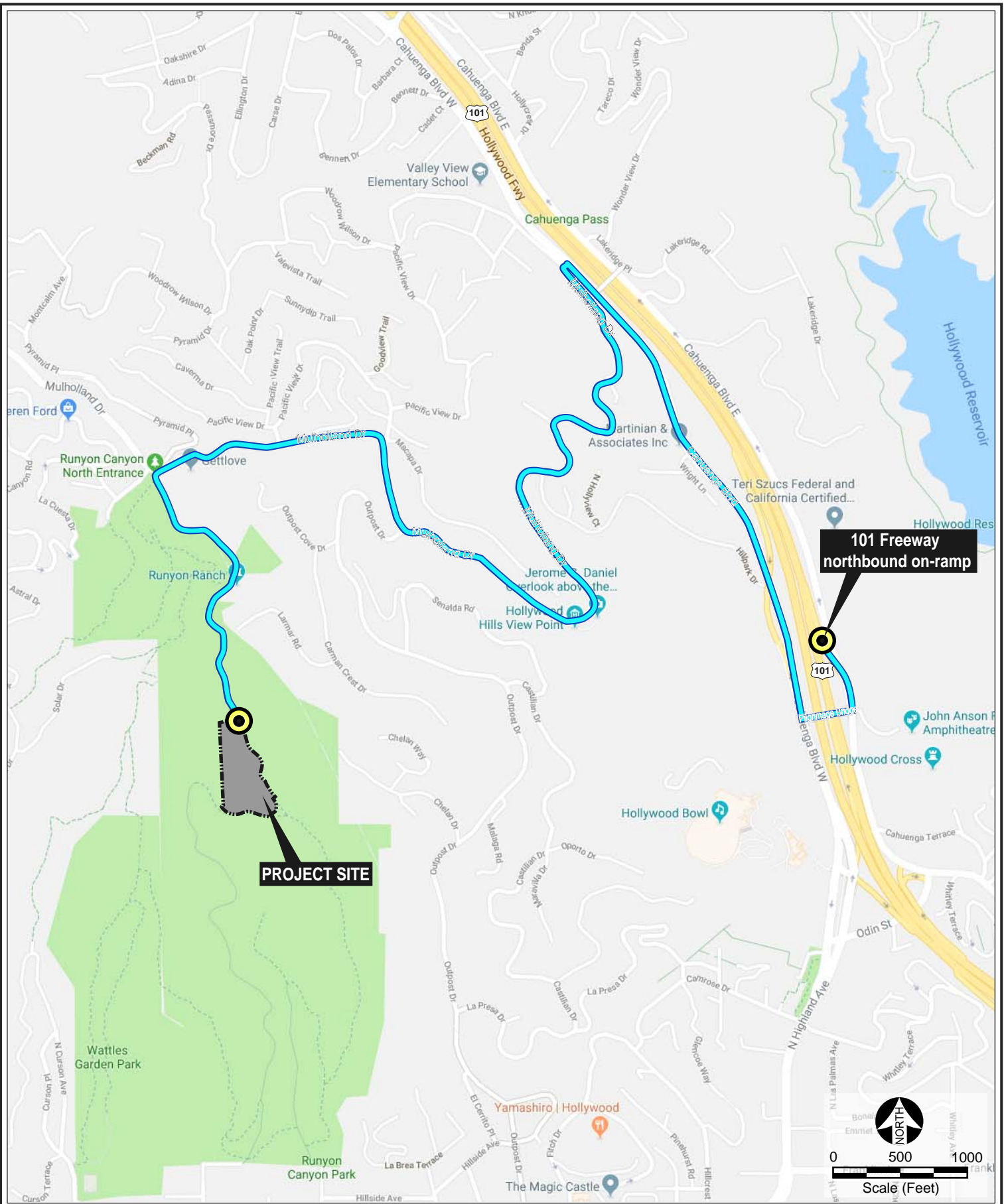


Figure II-13
Haul Route A

Source: Google Maps and CAJA Environmental Services, LLC, 2018.

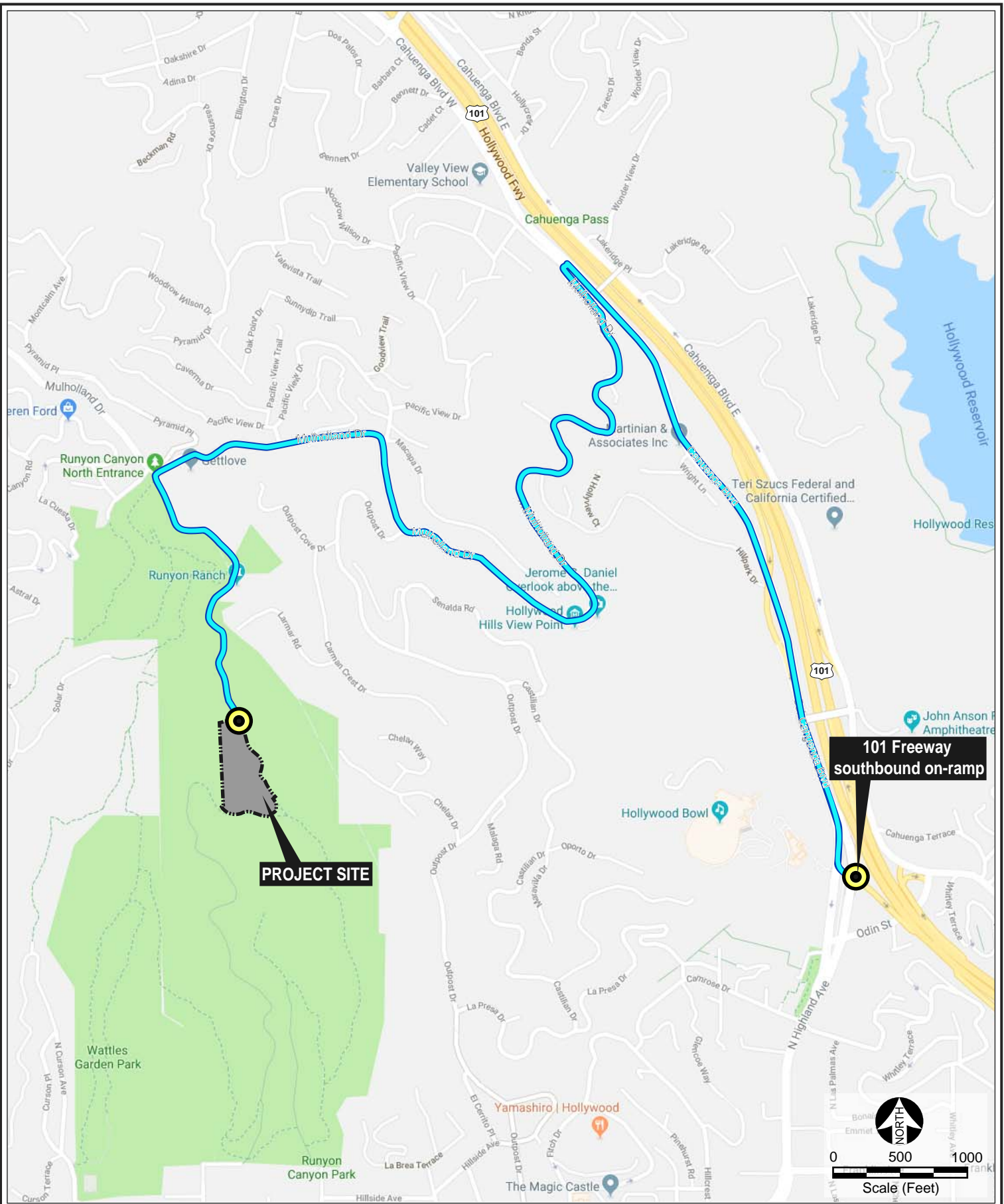


Figure II-14
Haul Route B

Source: Google Maps and CAJA Environmental Services, LLC, 2018.

III. Environmental Setting

1. Existing Conditions

a. Regional Setting

The Project Site is located at 3003 North Runyon Canyon Road. The Project Site is located in the Hollywood Community Plan (CP) Area and within the Runyon Canyon Park area of the City of Los Angeles. The approximately 4.5-acre (197,435 square feet) Project Site is located on the west side of Runyon Canyon Road, approximately 0.5 mile south of Mulholland Drive and approximately 0.75 miles west of the Hollywood Freeway (U.S. Route 101). The Project Site is also just west of the Hollywood Bowl landmark in the Hollywood Hills. See Figure III-1, Regional and Vicinity Map, and Figure III-2, Aerial Map, for the location within the context of the City.

b. Site Characteristics

(1) Existing Uses

The Project Site is almost entirely vacant, with the exception of an existing single-family residence known as the Headley/Handley House, which was designated as Los Angeles Historic-Cultural Monument (HCM) #563 on July 14, 1992. This existing historical structure would remain intact with development of the Project. The proposed construction footprint occurs within the previously altered and improved areas associated with the Headley/Handley House, as well as natural slopes with native brush cover. There are no native protected tree species on-site.¹ There are a total of 96 Non-Protected Significant trees on the Site and 17 Non-Protected Significant trees are recommended for removal. These trees are in close proximity to the proposed construction and would not tolerate the encroachment. Figures III-3 and III-4 provide views of the Project Site.

(2) Land Use and Zoning

As stated above, the Project Site is located in the Hollywood Community Plan Area of the City of Los Angeles. The City is currently in the process of updating the

¹ *One California walnut tree occurs on the western edge of the biological resources study area. However, as discussed in Section IV.C, Biological Resources, this tree would not be impacted by the Project.*

Hollywood Community Plan.² Under the adopted Community Plan, which was last updated in 1988, the Project Site has a General Plan land use designation of Minimum Residential. Land use designations for single-family residential uses (Minimum Residential, Very Low Residential, Very Low I Residential, Very Low II Residential, and Low Residential) correspond to Goal 3B of the Framework Element of the General Plan, which is “preservation of the City’s stable single-family residential neighborhoods.” The Minimum Residential land use designation corresponds to the A1, A2, RE 40, and OS zones, and allows for a density of up to 0.4-1 units per net acre.

The Project Site’s assessor parcel number (APN), zoning, land use designation, and lot size are listed on Table III-1, below. The total area that comprises the Project Site is approximately 197,435 square feet (or approximately 4.5 acres). The entire Project Site is zoned by the Los Angeles Municipal Code as RE 40-1-H (Residential Estate, Hillside Ordinance) and is designated Minimum Residential by the Hollywood Community Plan. The RE 40 zone (Residential Estate Zone) allows for one-family dwellings, parks, playgrounds, community centers, truck gardening, accessory living quarters, and home occupations. The “1” corresponds to the height district, and the “H” notes that the Project is subject to the requirements of the Hillside Ordinance. The Hillside Ordinance governs the height, floor area, and lot coverage of the Project Site, and allows a maximum height of 30 feet, a maximum floor area ratio of 38,373 square feet, and a maximum lot coverage of 40%.

The Project Site is also located within the Outer Corridor of the Mulholland Scenic Parkway Specific Plan (MSPSP) area, which is defined as the area between 500-feet and one-half mile from the right-of-way along Mulholland Drive. The Los Angeles City Council adopted the MSPSP, Ordinance No. 167,943, on May 13, 1992. The MSPSP became effective on June 29, 1992. The intent of the MSPSP is to promote and preserve Mulholland Drive as a scenic parkway. The MSPSP is generally bounded by the Mulholland Drive right-of-way to the north and south; by the Hollywood Freeway to the east; and by Topanga Canyon Boulevard to the west. Mulholland Drive extends for approximately 20-miles within the MSPSP area. Most proposed projects within the MSPSP area are required to be submitted to the MSPSP Design Review Board (DRB) for approval to verify compliance with the intent of the MSPSP. Finally, the Project Site is located within the Los Angeles State Enterprise Zone, which provides tax incentives and benefits to stimulate business investment and job creation within the Zone, and is located within an Equine Keeping area of the City.

² *Due to a Los Angeles Superior Court decision on the Plan’s Environmental Impact Report, the City Council took action on April 2, 2014, to rescind the 2012 Hollywood Community Plan Update (HCPU). As a result of this action, the City has reverted, by operation of law, to the 1998 Hollywood Community Plan and the zoning regulations that existed immediately prior to June 19, 2012 (the date of the adoption of the HCPU and ordinance).*

**Table III-1
Project Site Information**

Address	APN	Zoning	Land Use Designation	Size (square feet)
3003 N. Runyon Canyon Rd.	5572-024-006	RE40-1-H	Minimum Residential	197,435
Source: http://zimas.lacity.org/ .				

c. Surrounding Uses

The Site is surrounded by Runyon Canyon Park, which is public park land managed by the City of Los Angeles Department of Parks and Recreation and zoned OS-IXL. There is one other single-family residence within Runyon Canyon, located at 3050 Runyon Canyon Road (known as “Runyon Ranch”). The Site is accessed by Runyon Canyon Road, a gated fire road that is closed to public motor vehicle access that runs roughly through the center of the park between the northern and southern entrances along Runyon Canyon itself. The road is also currently used as a hiking trail through the public park. The 160-acre park is open to the public seven days a week from dawn to dusk. Bordering the park in all directions are low-density zoned residential uses with the exception of multi-family residential uses along a portion of the southern park border near the Fuller Avenue park entrance.

d. Regional and Local Access

Regional access is provided by the Hollywood Freeway (U.S. Route 101). In the vicinity of the Project Site, access is provided to the Project Site via Mulholland Drive and Runyon Canyon Road. Emergency access is also available to the Project Site from the south via the hiking trail, which has been recently paved.

2. Related Projects

Section 15130 of the State CEQA Guidelines requires that an EIR consider the significant environmental effects of a proposed project as well as the project’s “cumulative impacts.” The State CEQA Guidelines explain that a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts (State CEQA Guidelines Section 15130(a)(1)). As stated in State CEQA Guidelines Section 15130(a)(1), the cumulative impacts discussion in an EIR need not discuss impacts that do not result in part from the project evaluated in the EIR. Cumulative impacts may be analyzed by considering a list of past, present, and probable future projects producing related or cumulative impacts (State CEQA Guidelines Section 15130(b)(1)(A)). The

cumulative analysis contained in this Draft EIR considers the growth generated by related projects.

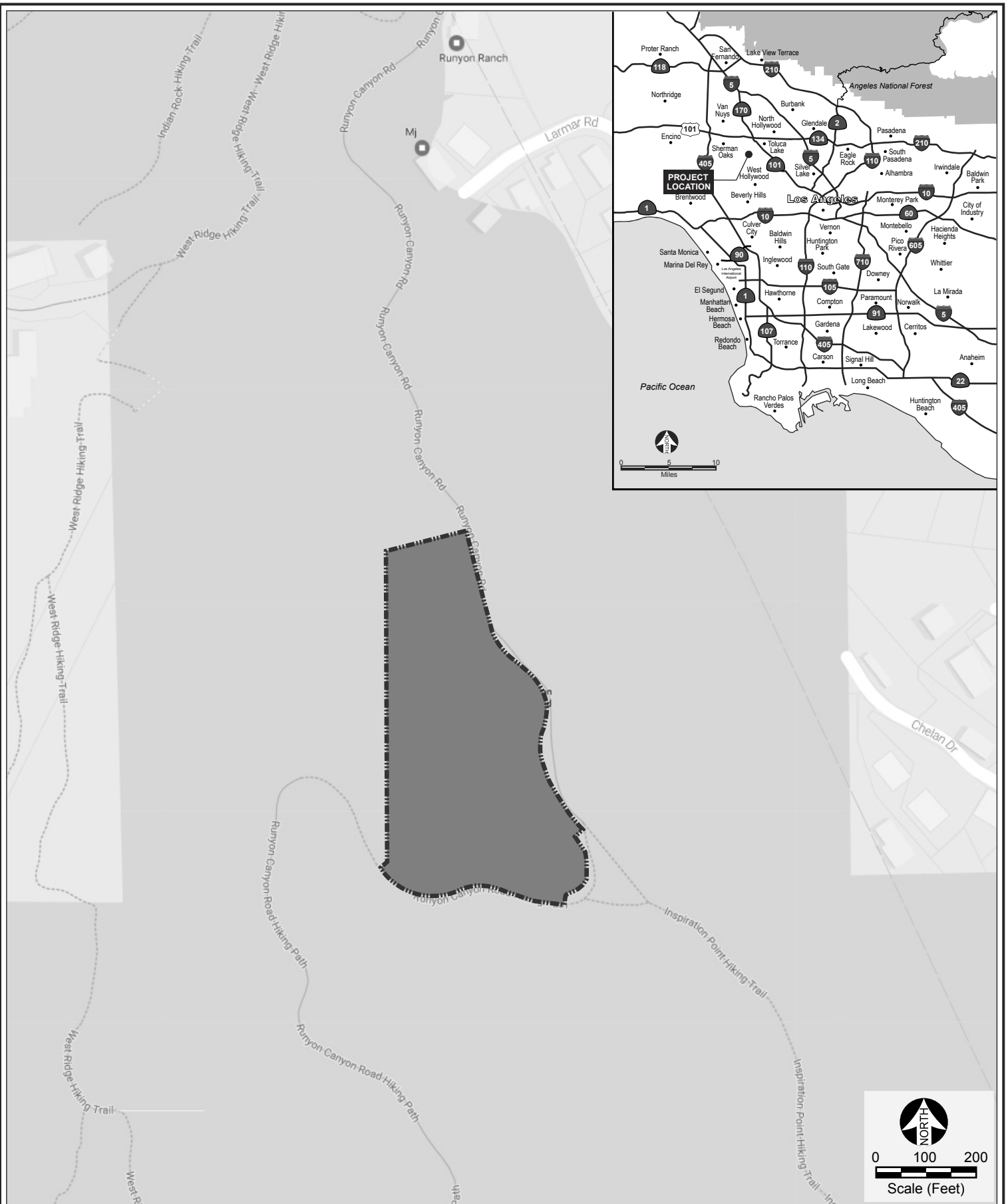
In this Draft EIR, cumulative impact analyses are provided for each environmental issue discussed in Section IV. Environmental Impact Analysis, and can be found in each respective subsection (e.g., Aesthetics, Air Quality, Transportation/Traffic, etc.). There are five related projects located within proximity to the Project Site.

The list of related projects is based on information provided by Council District 4 staff. Though the buildout years of these related projects are uncertain and may be beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this Draft EIR and conservatively assumed to be completed by the Project buildout year, regardless of their buildout date. Table III-2, List of Related Projects, provides the related projects that were considered in each cumulative impact analysis. The locations of the related projects are depicted in Figure III-7, Related Projects Location Map.

**Table III-2
List of Related Projects**

No.	Address	Description
1	6940 Oporto Way	Single-family residence
2	7391 Pyramid Place	Single-family residence
3	7123 Macapa Drive	Single-family residence
4	2435 Outpost Drive	Single-family residence
5	7427 Pyramid Place	Single-family residence

Notes: listing of related projects provided via email from Council District 4 staff on March 6, 2019.

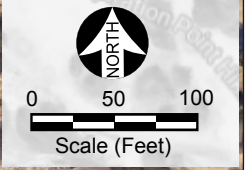
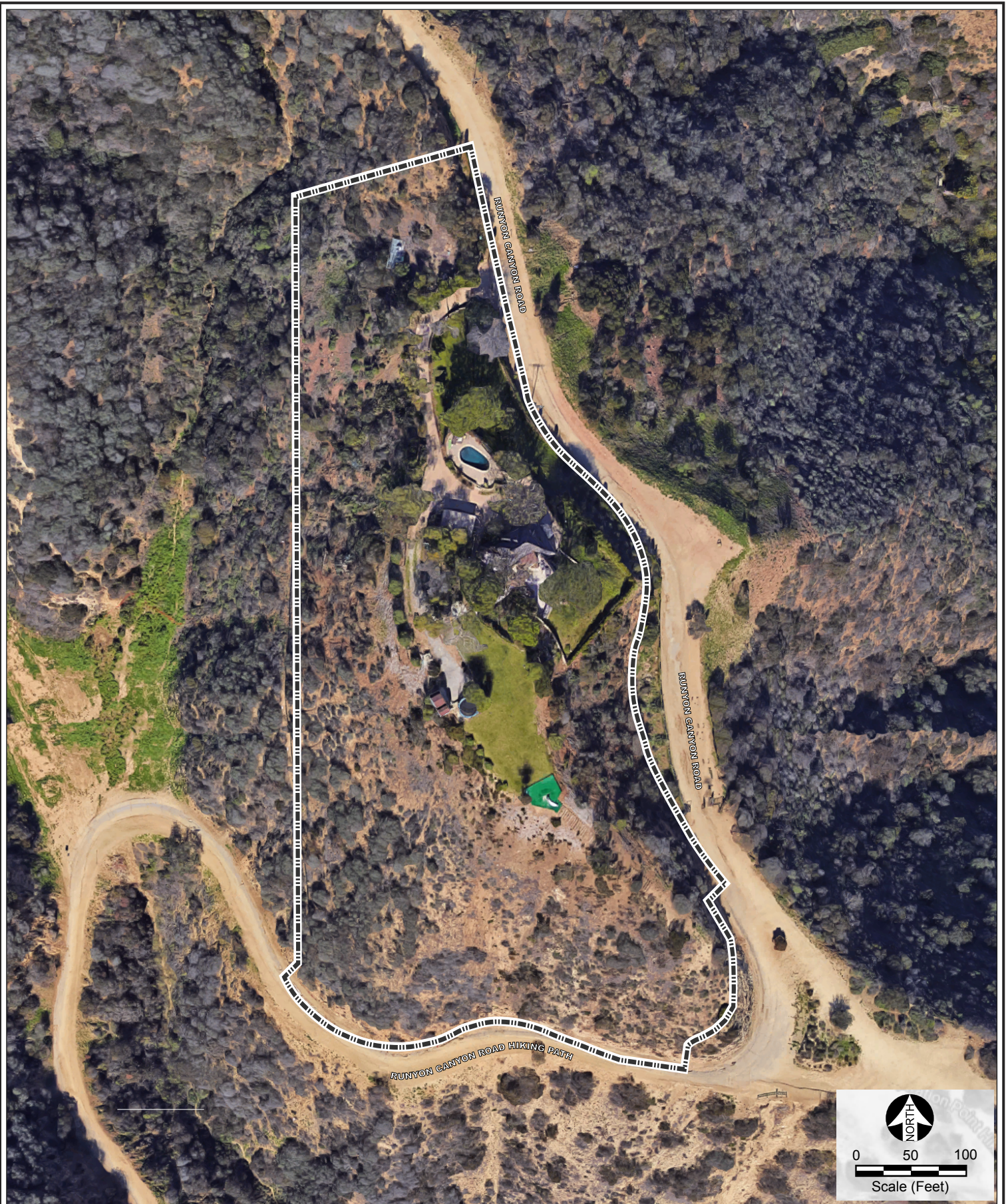


Legend

 Property Line

Source: Google Maps, 2018.

**Figure III-1
Regional and Vicinity Map**



Legend

— — — — — Property Line

Source: Google Maps, 2018.

Figure III-2
Aerial Map



View 1: View of Headley/Handley house.



View 2: View of Headley/Handley house.



View 3: View looking at patio.



View 4: View of Headley/Handley house.

Figure III-3
Views of the Project Site



View 5: View looking at entry gate and driveway along Runyon Canyon Road.



View 6: View of Headley/Handley house and driveway.



View 7: View of pool.



View 8: View of Project Site.

Figure III-4
Additional Views of the Project Site



View 1: View of residences from Runyon Canyon Road looking northeast.



View 2: View of residences from Runyon Canyon Road looking southeast.



View 3: View of residences from Runyon Canyon Road Hiking Path looking northeast.

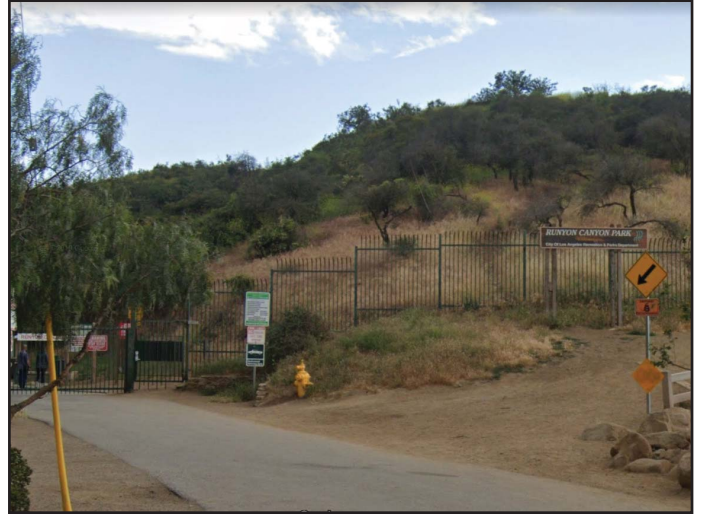


View 4: View of residences from Runyon Canyon Road Hiking Path looking east.

Figure III-5
Views of Surrounding Uses



View 5: View of residences from Runyon Canyon Road Hiking Path looking northwest.



View 6: View of entry gate from Mulholland Boulevard and Runyon Canyon Road.



View 7: View of Runyon Canyon Road Hiking Path looking north.



View 8: View of Runyon Canyon Road Hiking Path looking south.

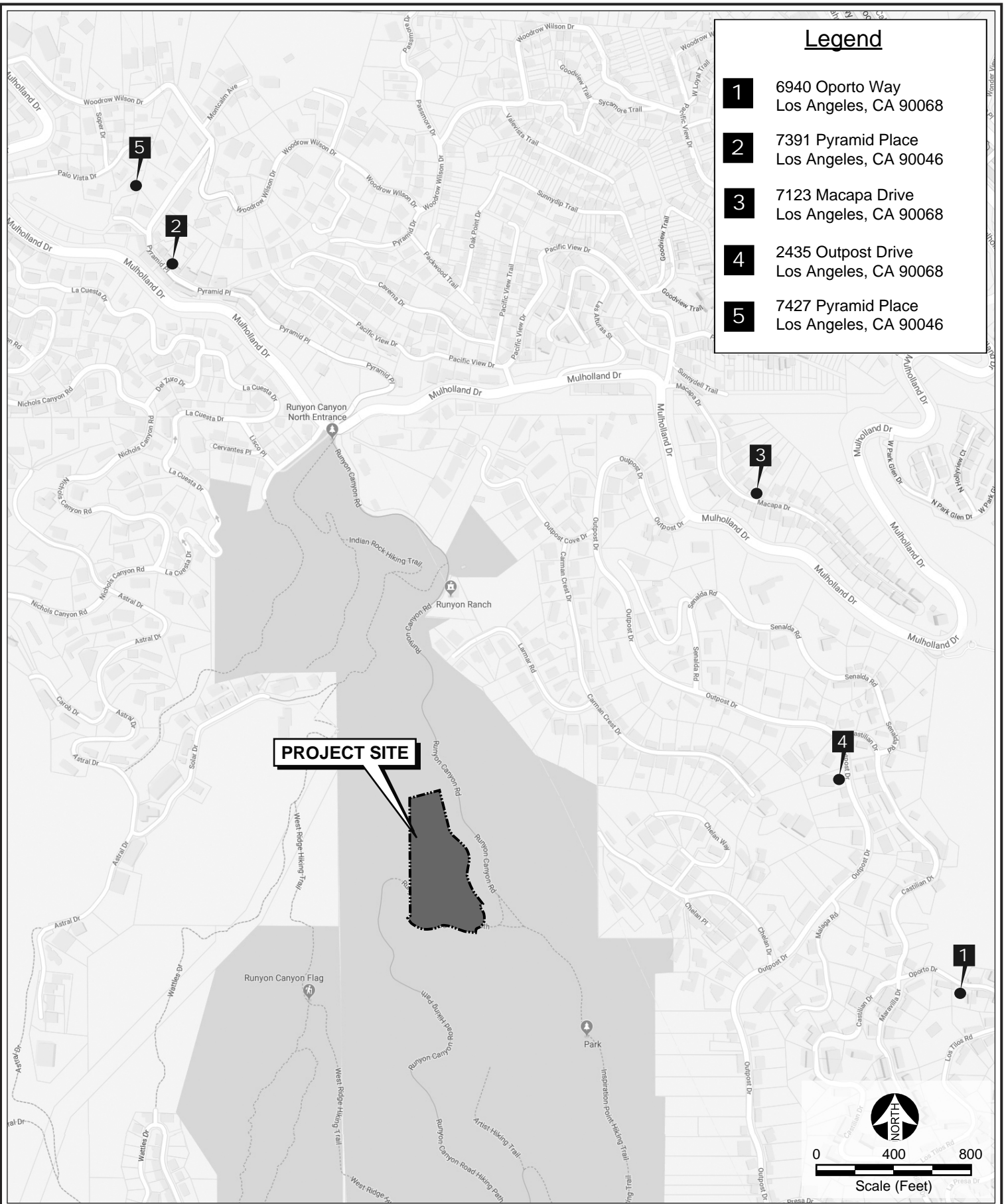


Figure III-7
Related Projects Location Map

Source: Google Maps 2019.

IV. Environmental Impact Analysis

A. Aesthetics

1. Introduction

This section of the Draft EIR provides an analysis of the Project's potential impacts with respect to aesthetics, in terms of scenic vistas, scenic resources, visual character and quality, and lighting. In addition, the potential cumulative impacts related to aesthetics associated with the Project, in combination with all known related projects, are evaluated.

2. Environmental Setting

a. Regulatory Framework

(1) City of Los Angeles General Plan

The City of Los Angeles General Plan (General Plan), originally adopted in 1974, is a comprehensive long-term document that provides principles, policies, and objectives to guide future development and to meet the existing and future needs of the City. The General Plan consists of a series of documents, including the seven elements mandated by the State of California: Land Use, Transportation, Noise, Safety, Housing, Open Space, and Conservation. In addition, the City's General Plan includes elements addressing Air Quality, Infrastructure Systems, Public Facilities and Services, Health and Wellness, as well as the Citywide General Plan Framework Element (Framework Element). The City's General Plan Framework Element, adopted in December 1996, and readopted in August 2001, contains several broad goals, objectives, and policies that address land use and serves as a guide to update the community plans and the citywide elements. The Framework Element provides a base relationship between land use and transportation, and provides guidance for future updates to the various elements of the General Plan.

a. Open Space and Conservation Chapter

The Open Space and Conservation Chapter contains goals, objectives, and policies to guide the provision, management, and conservation of public open space resources; address the outdoor recreational needs of the City's residents; and guide amendments to the General Plan Open Space Element and Conservation Element. This chapter also includes policies to resolve the City's open space issues. Specifically, this chapter contains open spaces goals, objectives, and policies regarding resource

conservation and management, outdoor recreation, public safety, community stability, and resources development.

The Open Space and Conservation Chapter of the Framework Element contains the following goal, objectives, and policies that would be applicable to the Project:

- 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 6.1.1: Consider appropriate methodologies to protect significant remaining open spaces for resource protection and mitigation of environmental hazards, such as flooding, in and on the periphery of the City, such as the use of tax incentives for landowners to preserve their lands, development rights exchanges in the local area, participation in land banking, public acquisition, land exchanges, and Williamson Act contracts.
 - Policy 6.1.2: Coordinate City operations and development policies for the protection and conservation of open space resources, by: a) Encouraging City departments to take the lead in utilizing water re-use technology, including graywater and reclaimed water for public landscape maintenance purposes and such other purposes as may be feasible; b) Preserving habitat linkages, where feasible, to provide wildlife corridors and to protect natural animal ranges; and c) Preserving natural viewsheds, whenever possible, in hillside and coastal areas.
 - Objective 6.2: Maximize the use of the City's existing open space network and recreation facilities by enhancing those facilities and providing connections, particularly from targeted growth areas, to the existing regional and community open space system.
 - Objective 6.3: Ensure that open space is managed to minimize environmental risks to the public.
 - Policy 6.3.1: Preserve flood plains, landslide areas, and steep terrain areas as open space, wherever possible, to minimize the risk to public safety.

b. Los Angeles General Plan Conservation Element

The City of Los Angeles General Plan includes a Conservation Element, which addresses the preservation, conservation, protection, and enhancement of the City's natural resources. Section 5 of the Conservation Element recognizes the City's responsibility for identifying and protecting its cultural and historical heritage. The Conservation Element established an objective to protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes and a corresponding policy to continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities. Regarding open space, the Conservation Element refers to the Open Space Element for a discussion of open space aspects of the City, including park sites and urbanized spaces.

c. Los Angeles General Plan Open Space Element

The City of Los Angeles General Plan also includes an Open Space Element (the "Open Space Plan"), which includes definitions, objectives, policies, standards and criteria, programs, and a map, which are to be used when decisions are made pertaining to open space within the City of Los Angeles. The Open Space Plan map also designates existing open space land in public and private ownership, and designates lands that are considered to be desirable for open space use.

The Open Space Element contains the following goals that would be applicable to the Project:

- To ensure the preservation and conservation of sufficient open space to serve the recreational, environmental, health, and safety needs of the City.
- To conserve unique natural features, scenic areas, cultural and appropriate historical monuments for the benefit and enjoyment of the public.
- To provide access, where appropriate, to open space lands.

d. City of Los Angeles Mobility Plan 2035

In August 2015, the City Council initially adopted Mobility Plan 2035, which replaces the General Plan Transportation Element. Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning, January 2016) (the "Mobility Plan"). The Mobility Plan revised street standards previously outlined in the *City of Los Angeles Transportation Element of the General Plan* (Los Angeles Department of City Planning, 1999) in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The Mobility Plan 2035 identifies Mulholland Drive as a Scenic Highway.

(2) Hollywood Community Plan

The Project Site is located in the Hollywood Community Plan Area of the City of Los Angeles, one of thirty-five Community Plans that comprise the Land Use Element of the City of Los Angeles' General Plan. The City is currently in the process of updating the Hollywood Community Plan.¹ Under the adopted Community Plan, which was last updated in 1988, the Project Site has a General Plan land use designation of Minimum Residential. The Community Plan is intended to promote an arrangement of land use, circulation, and services which will encourage and contribute to the economic, social and physical health, safety, welfare, and convenience of the Community, within the larger framework of the City; guide the development, betterment, and change of the Community to meet existing and anticipated needs and conditions; balance growth and stability; reflect economic potentials and limits, land development and other trends; and protect investment to the extent reasonable and feasible.

(3) Mulholland Scenic Parkway (Outer Corridor) Specific Plan

The Project Site is also located within the Outer Corridor of the Mulholland Scenic Parkway Specific Plan (MSPSP) area, which is defined as the area between 500-feet and one-half mile from the right-of-way along Mulholland Drive. The Los Angeles City Council adopted the MSPSP, Ordinance No. 167,943, on May 13, 1992. The MSPSP became effective on June 29, 1992. The intent of the MSPSP is to promote and preserve Mulholland Drive as a scenic parkway. The MSPSP is generally bounded by the Mulholland Drive right-of-way to the north and south; by the Hollywood Freeway to the east; and by Topanga Canyon Boulevard to the west. Mulholland Drive extends for approximately 20-miles within the MSPSP area. Most proposed projects within the MSPSP area are required to be submitted to the MSPSP Design Review Board (DRB) for approval to verify compliance with the intent of the MSPSP. A detailed analysis of the Project's consistency with the Design and Preservation Guidelines contained in the MSPSP is provided in Appendix J of this Draft EIR.

(4) Los Angeles Municipal Code

All development activity on the Project Site is subject to the City of Los Angeles Municipal Code (LAMC), particularly Chapter 1, General Provisions and Zoning, also known as the City of Los Angeles Planning and Zoning Code (the Zoning Code). The Zoning Code includes development standards for the various districts in the City of Los

¹ *Due to a Los Angeles Superior Court decision on the Plan's Environmental Impact Report, the City Council took action on April 2, 2014, to rescind the 2012 Hollywood Community Plan Update (HCPU). As a result of this action, the City has reverted, by operation of law, to the 1998 Hollywood Community Plan and the zoning regulations that existed immediately prior to June 19, 2012 (the date of the adoption of the HCPU and ordinance).*

Angeles. The entire Project Site is zoned as RE40-1-H (Residential Estate, Hillside Ordinance). The existing zoning for the Project Site allows a maximum height of 30 feet, and the maximum height of the Project would be approximately 17 feet, 8 inches. The height of the existing residence on the Project Site is 25 feet. In addition, the zoning allows for a maximum lot coverage of 40% and with the development of the Project, the lot coverage would be approximately 9.7% (including the existing residence). The Project's consistency with the LAMC is evaluated and discussed in Section IV.I, Land Use, of this Draft EIR.

b. Existing Conditions

(1) Scenic Vistas and Resources

The Project Site is located within Runyon Canyon Park in the Hollywood Community Plan Area of the City of Los Angeles. The approximately 4.5 acre (197,435 square feet) Project Site is approximately 0.5 miles south of Mulholland Drive and just west of US Highway 101 and the Hollywood Bowl landmark in the Hollywood Hills. Scenic resources include trees with scenic significance, rock outcroppings, prominent ridgelines and other major topographic features, or historic buildings within a highway designated by the State as a Historic Parkway or by the Federal Highway Administration as a National Scenic Highway. Mulholland Drive, designated by the City as a scenic highway, provides opportunities for multiple scenic vistas as it winds up and through the Santa Monica Mountains, including through the Project area. Single-family residences and other development near Mulholland Drive are subject to design review guidelines pursuant to the MSPSP. The MSPSP has designated 14 major vista points (MVPs) along Mulholland Drive that are maintained by the Bureau of Street Maintenance of the City of Los Angeles Department of Public Works. Additionally, as the Inner Corridor of the MSPSP area is designated as part of the Santa Monica Mountains National Recreation Area, the Santa Monica Mountains Conservancy has designated 13 scenic overlooks along Mulholland Drive. The nearest MVP (also the nearest Overlook) is the Hollywood Bowl MVP and Overlook, which is located approximately 0.3 miles east of the Project Site.

The Project Site itself is located within the Outer Corridor of the MSPSP area and approximately 0.5 miles south of Mulholland Drive.

Additionally, although not formally designated as a scenic vista, there are numerous trails within Runyon Canyon Park that provide views of the immediate area as well as the greater Los Angeles basin. The Project Site is viewable from Runyon Canyon Road at limited points. Specifically, when entering Runyon Canyon Park from Mulholland Drive, as hikers travel south along Runyon Canyon Road (downhill), a portion of the Project Site is viewable to the west. This includes views of the gate and landscaping surrounding the property, as well as the property driveway. Other, more limited, views are

available from Runyon Canyon Road, south of the Project Site, as hikers are traveling uphill toward the Project Site. These views primarily consist of views of the hillside.

(2) Visual Character

The Project Site is almost entirely vacant, with the exception of an existing single-family residence known as the Headley/Handley House, which was designated as Los Angeles Historic-Cultural Monument (HCM) #563 on July 14, 1992. This existing historical structure would remain intact with development of the Project. The majority of the Project Site consists of developed land or vegetation that has been subject to thinning associated with ongoing fuel modification as required by the City of Los Angeles Fire Department (LAFD). Existing views of the Project Site are provided in Figures II-3 and II-4 in Section II, Project Description.

(3) Light and Glare

a. Nighttime Light

Nighttime light is common throughout the City as a whole. Artificial light may be directly generated from sources or indirect sources of reflected light. Typical light-sensitive uses include, but are not limited to, residences, some commercial and institutional uses, and natural areas. Nighttime lighting is typically generated from interior lighting in buildings, exterior security and street lighting, and headlights from vehicles either traveling along the adjacent streets or parking on surrounding streets. At nighttime, the surrounding area exhibits a low level of illumination, mainly as a result of freestanding streetlights and lighting from the surrounding residential uses. Vehicle headlights, although infrequent, from traffic on local surface streets also contribute to overall ambient lighting levels. Outside lighting on the Project Site currently consists of light fixtures on the sides of the existing historic building.

b. Daytime Glare

Daytime glare is generally caused by reflection of sunlight or artificial light by polished surfaces on buildings, particularly multi-level buildings with glass windows or other reflective surfaces. Potential reflective surfaces in the Project vicinity include automobiles traveling and parked on streets in the vicinity of the Project Site, the paved hiking trail, and exterior building windows in the Project vicinity. Glare from building facades include those that are largely or entirely comprised of highly reflective glass or mirror-like material from which the sun reflects at a low angle in the periods following sunrise and prior to sunset.

3. Project Impacts

a. Thresholds of Significance

In accordance with the State CEQA Guidelines Appendix G (Appendix G), the Project would have a significant impact related to aesthetics if it would:

Threshold (a): Have a substantial adverse effect on a scenic vista; or

Threshold (b): Substantially damage scenic resources including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; or

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

Threshold (d): Create a new source of substantial light and glare which would adversely affect day or nighttime views in the area.

For this analysis, the Appendix G Thresholds are relied upon. The analysis also utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The *L.A. CEQA Thresholds Guide (Thresholds Guide)* identifies the following criteria to evaluate aesthetics:

a. Scenic Vistas and Visual Resources

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

b. Visual Character

- 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 to which the project would contribute to the area's aesthetic value; and
- The degree of contrast between proposed features and existing features that represent the area's valued aesthetic image.

c. Light and Glare

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

b. Methodology

The analysis of aesthetics identifies the uses in the surrounding area, as well as any views in the Project vicinity. The analysis describes the ways in which the Project would alter the existing visual character of the surrounding area, and the extent to which the Project would block any public views or scenic vistas in the vicinity. Finally, the analysis discusses whether the Project would result in any impacts with respect to light and glare. The discussion includes an analysis of the Project's design components as they relate to aesthetics.

c. Project Design Features

The following Project Design Features are applicable to the Project:

- AES-PDF-1** The Project has been designed to be built into the hillside, and would include the following design elements:

- Siting within the bluff (physically buried) so that the only face of the residence that is visible is on the western elevation;
- Rooflines designed to blend in with the natural topography;
- Five to ten-foot roof overhangs over the windows and patios; and
- Use of low-E glass windows.

In addition, as discussed in GHG-PDF-1 (in Section IV.G, Greenhouse Gas Emissions), the Project would include green roofs that are planted with grass.

d. Analysis of Project Impacts

Threshold (a): Would the project have a substantial adverse effect on a scenic vista?

As discussed above, the nearest area that provides a scenic vista is Mulholland Drive, which has been designed a City of Los Angeles scenic highway, and is subject to design review guidelines for single-family residences and other development pursuant to the MSPSP. The MSPSP has designated 14 major vista points (MVPs) along Mulholland Drive that are maintained by the Bureau of Street Maintenance of the City of Los Angeles Department of Public Works. Additionally, as the Inner Corridor of the MSPSP area is designated as part of the Santa Monica Mountains National Recreation Area, the Santa Monica Mountains Conservancy has designated 13 scenic overlooks along Mulholland Drive. The nearest MVP (also the nearest Overlook) is the Hollywood Bowl MVP and Overlook, which is located approximately 0.3 miles east of the Project Site. However, the Project would not be viewable from the Hollywood Bowl MVP and Overlook.

The Project has been designed such that the proposed home would be built into the hillside. The home itself sits below the disturbed ridgeline, which is the result of prior grading activities on the Project Site completed by a prior owner, on the western side of the property.² (See Figures II-3 and II-4 in Section II, Project Description, for views of the flattened ridgeline.) The roof of the proposed home has been designed such that it would match the existing topography and the roof of the home would replace the existing ridgeline in-kind. In addition, the roof would be planted with grass (as formally provided in GHG-PDF-1). As a result, the Project is completely hidden from Mulholland Drive. The proposed residence is sited physically within the bluff (buried) so that the only face of the

² *The original ridgeline was significantly modified by the architect of the Headley-Handley house in the 1930s/1940s; as a result, the current ridgeline has been modified significantly from its original state.*

residence that would be visible is on the western elevation. The home has further been designed in a modern style with curvilinear roof lines that blend in with the natural topography. The proposed home would also be an earth-toned color to match the surrounding landscape, and is designed to look like a natural land formation that grows out of the hillside and has no sharp angles. These design features of the Project have been provided above formally as Project Design Feature AES-PDF-1.

As shown in Figures IV.A-1 through IV.A-4, the view of the western elevation of the proposed home is only available from limited vantage points on the public hiking trail looking to the north and east. Specifically, Figure IV.A-1 provides a legend to show the location and vantage point of each of the view simulations. Figure IV.A-2 provides a sight line view from within Runyon Canyon Park, looking north. From this vantage point, a small portion of the western face of the home is visible, sitting below the ridgeline. Figure IV.A-3 provides a sight line view looking east, also from within Runyon Canyon Park. From this vantage point, the western face of the home is visible, looking upslope. This vantage point is only available from a limited range of Runyon Canyon Road, where the trail curves and the western face of the home is visible. Finally, Figure IV.A-4 provides an additional sight line view, looking east from within Runyon Canyon Park, closer to the Project Site. As shown in this figure, looking upslope a very small portion of the home is visible. The home would not be visible from other vantage points within Runyon Canyon Park.

Overall, the Project has been designed in an organic aesthetic that incorporates grass roofs. The Project has been designed to meet the requirements of the MSPSP and Hillside Ordinance standards for height, sensitivity to topography, and bulk of structures. As such, the Project would not have a substantial adverse effect on a scenic vista and impacts would be less than significant.

Threshold (b): Would the project substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings or other locally recognized desirable aesthetic natural feature within a state-designated scenic highway?

While the Project Site is not located within a State-designated scenic highway, the Project Site is located within the Outer Corridor of the MSPSP area and approximately 0.5 miles south of Mulholland Drive, which has been designated by the City of Los Angeles as a scenic highway of importance to the region. As discussed previously, the Project has been designed such that the proposed home would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property, and is completely hidden from Mulholland Drive. The proposed residence is sited physically within the bluff (buried) so that the only face of the residences that would be visible is on the western elevation. The home has further been designed in a natural style

with curvilinear roof lines that blend in with the natural topography. The proposed home would also be an earth-toned color to match the surrounding landscape, and is designed to look like a natural land formation that grows out of the hillside and has no sharp angles. Overall, the Project has been designed to meet the requirements of the MSPSP and Hillside Ordinance standards for height, sensitivity to topography, and bulk of structures.

However, since the Proposed Project proposes to add a new single-family residence (proposed new residence) on the same parcel as the Headley/Handley House, a parcel that historically has been sparsely developed and maintained with open views, the Proposed Project has the potential to impact the integrity of the historical resource's setting. To minimize impacts, the Proposed Project is designed in a manner that minimizes visual effects on the Project Site and is consistent with the *Secretary of the Interior's Standards for Rehabilitation*. Please refer to Chapter IV.D Cultural Resources, for a comprehensive assessment regarding impacts to historic resources.

The Proposed Project has been designed in a manner sensitive and sympathetic to the existing historic residence. The proposed siting, location, materials, and colors of the new residence are compatible with the existing historic residence. The Proposed Project, as designed, would not diminish the integrity of the existing setting of the Headley/Handley House. Therefore, the Proposed Project would not cause a substantial adverse change in the significance of the historic property and would therefore not require any measures to minimize or mitigate any significant impacts on the historical resource. **As such, the Project's impacts with respect to scenic resources would be less than significant.**

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

(1) Construction

The approximately 4.5 acre Project Site is located in a non-urbanized area within the 160 acre Runyon Canyon Park. The Construction activities at the Project Site would be visible from some locations within Runyon Canyon Park, although construction activity would vary on a weekly basis, depending largely on the number of workers and construction trucks needed for the activities during each phase of construction. The Project Site is currently gated, which would partially shield views of construction activities and equipment. Though construction activities would be visible from some vantage points, changes to the appearance of the Project Site would be temporary in nature. The Project's construction activities would be temporary and would not rise to the level of a change that

would substantially degrade the existing visual character. **As such, impacts to visual character during construction would be less than significant.**

(2) Operation

A significant impact would occur if a project introduces incompatible visual elements on the Project Site or visual elements that would be incompatible with the character of the surrounding area. The Project Site is a mostly undeveloped, irregular-shaped, hilltop property, exhibiting slopes from 20 to 50 percent, and is located in the middle of Runyon Canyon Park. As described previously, the majority of the vegetation on the Project Site has been subject to thinning associated with ongoing fuel modification as required by the LAFD. Bordering the park in all directions, and visible from the Project Site and many vantage points in Runyon Canyon Park, are large single-family homes in low-density zoned residential uses with the exception of multi-family residential uses along a portion of the southern park border near the Fuller Avenue park entrance. To the east of the Project Site, there are single-family residences located along Chelan Drive, as close as 750 feet to the Project Site. To the northeast, there are single-family residences located along Larmar Road, as close as 700 feet to the Project Site. These homes to the east and northeast are located at lower elevations than the Project Site. To the northwest along Solar Drive, there are single-family residences located as close as 950 feet from the Project Site. These residences are located at a similar elevation as the Project Site.

The Project proposes the construction of a single-family residential structure, with the existing structure reclassified as Accessory Living Quarters. As discussed previously, the Project has been designed such that the proposed home would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property. The roof of the proposed home has been designed such that it would match the existing topography and the roof of the home would replace the existing ridgeline in-kind. In addition, the roof of the home would be planted with grass (as formally provided in GHG-PDF-1). As a result, the Project is completely hidden from Mulholland Drive. The home has been designed in a modern style with curvilinear roof lines that blend in with the natural topography. The proposed home would also be an earth-toned color to match the surrounding landscape, and is designed to look like a natural land formation that grows out of the hillside and has no sharp angles. Overall, the proposed home has been designed in an organic aesthetic and also includes grass roofs.

Finally, as shown in Figures IV.A-1 through IV.A-4, the proposed residence is sited physically within the bluff (buried) so that the only face of the residence that would be visible is on the western elevation. Additionally, as shown in Figures IV.A-1 through IV.A.-4, the view of the western elevation is only available from limited vantage points on the public hiking trail looking to the north and east. Specifically, Figure IV.A-1 provides a legend to show the location and vantage point of each of the view simulations. Figure

IV.A-2 provides a sight line view from within Runyon Canyon Park, looking north. From this vantage point, a small portion of the western face of the home is visible, sitting below the ridgeline. Figure IV.A-3 provides a sight line view looking east, also from within Runyon Canyon Park. From this vantage point, the western face of the home is visible, looking upslope. This vantage point is only available from a limited range of Runyon Canyon Road, where the trail curves and the western face of the home is visible. Finally, Figure IV.A-4 provides an additional sight line view, looking east from within Runyon Canyon Park, closer to the Project Site. As shown in this figure, looking upslope a very small portion of the home is visible. The home would not be visible from other vantage points within Runyon Canyon Park. **As such, Project impacts with respect to visual character would be less than significant.**

Threshold (d): Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

(1) Construction

During the evening and nighttime hours, construction activities are not anticipated to occur and thus no night lighting impacts are anticipated during construction.

(2) Operation

As discussed in the Initial Study (Appendix A) and Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, a significant impact may occur if a project were to introduce new sources of light or glare on or from the Project Site which would be incompatible with the area surrounding the Project Site, or which pose a safety hazard to motorists utilizing adjacent streets or freeways. The Project Site and surrounding area contain sources of nighttime lighting, including streetlights, security lighting, indoor building illumination (light emanating from the interior of residential structures in the area that passes through windows), and infrequent automobile headlights along North Runyon Canyon Road.

a. Light

At nighttime, the surrounding area exhibits a low level of illumination, mainly from freestanding streetlights and lighting from the surrounding residential uses, which are located as close as 700 feet from the Project Site. Vehicle headlights, although infrequent, from traffic on local surface streets also contribute to low overall ambient lighting levels. Outside lighting on the Project Site currently consists of light fixtures on the sides of the existing historic building. The Project has been designed to be built into the hillside with 5- to 10-foot roof overhangs over the windows and patios of the proposed home. The windows of the home would be low E-glass and set deep into and under the roof

overhangs. Low E-glass windows reduce the overall emissivity of the window, thereby reducing the re-radiated light emitted from the window. Exterior patio lights would be placed only for walking accessibility and would be downward facing and shielded and would not shine into the park or upwards towards the sky. All light would be directed inward, where possible. The light inside the home would be reduced at night due to the glazing being recessed into the building. Also, there are no light sensitive areas adjacent to the Project Site, as Runyon Canyon Park closes at sundown and the nearest residential uses are located approximately 700 feet northeast of the Project Site. In addition, as discussed in greater detail in Section IV.C, Biological Resources, it was determined that lighting impacts to biological resources would be less than significant, given the lack of special-status species associated with the native habitats adjacent to the Project Site and the minimal amount of new lighting associated with the Project. **Overall, exterior lighting would be minimized, and interior lighting would be designed to minimize any illumination that could be transmitted to the exterior (see Figure IV.A-5 for an evening view of the Project). Therefore, impacts would be less than significant.**

b. Glare

Glare from building facades include those that are largely or entirely comprised of highly reflective glass or mirror-like material from which the sun reflects at a low angle in the periods following sunrise and prior to sunset. However, the Project would not substantially increase ambient glare in the vicinity. An overall architectural design of the Project with low reflective façade and window materials used on the exterior of the home would ensure that the Project does not create glare. Specifically, as provided above in Project Design Feature AES-PDF-1, the design of the Project includes 5- to 10-foot roof overhangs over the windows and patios of the proposed home, and the Project would also include windows with low E-glass, that are set deep into and under the roof overhangs. Low E-glass windows reduce the overall emissivity of the window, thereby reducing the glare from the windows. **As such, the Project would not result in a new source of substantial glare and impacts would be less than significant.**

4. Cumulative Impacts

As discussed above, the Project would not result in significant impacts with respect to scenic vistas, views, or visual character. The five related projects identified in Table III-7 (in Section III, Environmental Setting) are all located more than 1,000 feet from the Project Site. In addition, like the Project, the related projects all consist of single-family residences. Based on the distance from the Project Site to the related projects, and the nature of the Project and the related projects (i.e., all single-family residences) the Project would not combine with any related projects to generate a significant cumulative impact with respect to scenic vistas, views, or visual character. Therefore, cumulative aesthetics impacts related to visual character and scenic resources would be less than significant.

As it relates to light and glare, the surrounding area exhibits a low level of illumination, mainly from freestanding streetlights and lighting from the surrounding residential uses. Vehicle headlights, although infrequent, from traffic on local surface streets also contribute to overall ambient lighting levels. As discussed above, the Project would minimize light and glare from the proposed residence. Development of the related projects could result in additional illumination in the general area. However, none of the related projects would be located close enough to the Project to result in intensified light and glare in the Project area. Therefore, cumulative aesthetic impacts related to light and glare would be less than significant.

With respect to shade and shadow, as discussed above, as the Project is less than 60 feet in height and there are no adjacent shadow sensitive land uses; therefore, a shade and shadow analysis is not required and Project impacts would be less than significant. In addition, none of the related projects would be located close enough to the Project to result in shading of the same off-site areas. Therefore, cumulative aesthetic impacts with respect to shade and shadow would be less than significant.

Overall, cumulative impacts related to aesthetics would be less than significant.

5. Mitigation Measures

Project-level and cumulative impacts with regard to aesthetics would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.





3003 RUNYON CANYON
SIGHT LINE 1 VIEW NORTH

ameen ayoub
design studio



3003 RUNYON CANYON
SIGHT LINE 2 VIEW EAST

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3003 RUNYON CANYON
SIGHT LINE 3 WEST SLOPE

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3003 RUNYON CANYON
EVENING VIEW

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IV. Environmental Impact Analysis

B. Air Quality

1. Introduction

This section provides an analysis of the Project's potential air quality impacts based upon information and analysis provided in the following technical modeling (refer to Appendix D).

D Air Quality and Greenhouse Gas Emissions Technical Modeling, DKA Planning, July 2018.

In addition, the potential cumulative air quality impacts of the Project in combination with all known related projects are evaluated in this section.

2. Environmental Setting

a. Air Pollution and Potential Health Effects

Criteria air pollutants are defined as pollutants for which the federal and State governments have established ambient air quality standards for outdoor concentrations. 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 (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter 2.5 microns or less in diameter (PM_{2.5}), particulate matter ten microns or less in diameter (PM₁₀), and lead (Pb). These pollutants are discussed below.

(1) Criteria Pollutants

- **Carbon Monoxide (CO)** is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. It is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of emissions. CO is a non-reactive air pollutant that dissipates relatively quickly, so ambient concentrations generally follow the spatial and temporal distributions of vehicular traffic. 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. The highest concentrations occur during the colder months of the year when inversion conditions are more frequent. CO is a health concern because it competes with oxygen, often replacing it in the blood and reducing the blood's ability to transport oxygen to vital organs. Even short-term excess CO exposure can lead to dizziness, fatigue, and impair central nervous system functions, such as voluntary movement (e.g., speech, walking) and involuntary movement (e.g., blinking, breathing).

- **Ozone (O₃)** is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOC) and nitrogen oxides (NO_x) react in the presence of ultraviolet sunlight. O₃ is not a primary pollutant; rather, it is a secondary pollutant formed by complex interactions of two pollutants directly emitted into the atmosphere. The primary sources of VOC and NO_x, the components of O₃, are automobile exhaust and industrial sources. Meteorology and terrain play major roles in O₃ 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 VOC and NO_x emissions is the automobile. Short-term exposure (lasting for a few hours) to O₃ 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 (NO₂)**, like O₃, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO₂ are collectively referred to as NO_x and are major contributors to O₃ formation. NO₂ also contributes to the formation of PM₁₀. High concentrations of NO₂ 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 NO₂ and chronic pulmonary fibrosis.¹ Some increase of bronchitis in children (2-3 years old) has been observed at concentrations below 0.3 ppm.²
- **Sulfur Dioxide (SO₂)** is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. Main sources of SO₂ are coal and oil

¹ Conti, Harari, Caminati et al, "The Association Between Air Pollution and the Incidence of Idiopathic Pulmonary Fibrosis." 2018.

² Ibid.

used in power plants and industries. Generally, the highest levels of SO₂ are found near large industrial complexes. In recent years, SO₂ concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO₂ and limits on the sulfur content of fuels. SO₂ is an irritant gas that attacks the throat and lungs.³ It can cause acute respiratory symptoms and diminished breathing function in children. SO₂ can also cause yellowing in plant leaves and erode iron and steel.

- **Particulate Matter (PM₁₀ and PM_{2.5})** consists of small liquid and solid particles floating in the air, including smoke, soot, dust, salts, acids, and metals and can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. Fine particulate matter, or PM_{2.5}, is roughly 1/28 the diameter of a human hair and results from fuel combustion (e.g. motor vehicles, power generation, industrial facilities), residential fireplaces, and wood stoves. In addition, PM_{2.5} can be formed in the atmosphere from gases such as SO₂, NO_x, and volatile organic compounds (VOC). Inhalable particulate matter, or PM₁₀, is about 1/7 the thickness of a human hair. Major sources of PM₁₀ 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 PM₁₀ pose a greater health risk than larger-size particles. When inhaled, they can penetrate the human respiratory system's natural defenses and damage the respiratory tract. Based on a substantial body of over 20 studies, PM_{2.5} and PM₁₀ 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 respirable particulate matter, or PM₁₀, 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.

³ U.S. National Park Service, "Sulfur Dioxide Effects on Health." Accessed at <https://www.nps.gov/subjects/air/humanhealth-sulfur.htm>

- **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 the lead-emission sources of greater concern. Lead-based paints are a health concern for those exposed to lead-based paint dust or chips from structures built before 1978 and the phase-out of these paints.

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 decreases in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth.

- **Sulfates** are a family of chemicals that occur primarily from combustion of petroleum-based fuels that contain sulfur. They can be a significant portion of fine particulate matter and can induce a wide range of adverse health effects, including reduced lung function and aggravated asthmatic symptoms.
- **Hydrogen Sulfide** is a colorless gas generated by natural gas extraction and processing and is also formed during bacterial decomposition of organic wastes. These odors are generally strong and foul and can induce tearing of eyes, headaches, nausea, or vomiting. As such, they are regulated as a nuisance because of its odors.

(2) Volatile Organic Compounds (VOCs)

VOCs are organic chemicals with a high vapor pressure that are precursors to the formation of ozone. They are generated by a number of anthropogenic sources, including paints, coatings, and combustion of fossil fuels. These also include benzene, a human carcinogen.

(3) Toxic Air Contaminants (TACs)

Toxic Air Contaminants (TACs) are airborne pollutants that may increase a person's risk of developing cancer or other serious health effects. TACs include over 700 chemical compounds that are identified by State and federal agencies based on a

review of available scientific evidence. In California, TACs are identified through a two-step process established in 1983 that includes risk identification and risk management. In 1998, CARB identified diesel particulate matter (diesel PM) as a toxic air contaminant.

Diesel particulate matter (DPM) Diesel PM refers to a complex mixture of particles and gases produced when an engine burns diesel fuel. Diesel PM is a concern because it increases risk of lung cancer, as many compounds found in diesel exhaust are carcinogenic. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. Diesel PM poses the greatest health risk among the TACs to sensitive receptors near freeways or other locations where diesel-fueled equipment or vehicles operate. These health risks are associated with a lifetime of chronic exposure, generally considered 70 years by the State's Office of Environmental Health Hazard Assessment.

b. Regulatory Framework

(1) Federal - Federal Clean Air Act (CAA)

The United States Environmental Protection Agency (USEPA) is responsible for enforcing the Federal Clean Air Act (CAA), the legislation that governs air quality in the United States. 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. It has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes emission standards, including those for vehicles sold in States other than California, where automobiles must meet stricter emission standards than those set by the State.

As required by the CAA, NAAQS have been established for seven major air pollutants: CO, NO₂, O₃, PM_{2.5}, PM₁₀, SO₂, and Pb. The CAA requires USEPA to designate areas as attainment, nonattainment, or maintenance for each criteria pollutant based on whether the NAAQS have been achieved. The federal standards are summarized in Table IV.B-1, below. The USEPA has classified the Los Angeles County portion of the South Coast Air Basin as nonattainment for O₃, Pb, and PM_{2.5}, attainment for PM₁₀, and attainment/unclassified for CO and NO₂. SO₂ is considered an attainment pollutant.

(2) State – California Clean Air Act (CCAA)

In addition to being subject to the requirements of the Federal Clean Air Act, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The California Air Resources Board (CARB), which became part of the California Environmental Protection Agency in 1991, is responsible for 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 achieve and maintain the CAAQS, which are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB has broad authority to regulate mobile air pollution sources, such as motor vehicles. It 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 IV.B-1, below.

The CCAA requires CARB to designate areas within California as either attainment or non-attainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as non-attainment 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 non-attainment.

**Table IV.B-1
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)	Non-attainment	--	--
	8-hour	0.07 ppm (137 µg/m ³)	N/A ¹	0.070 ppm (137 µg/m ³)	Non-attainment
Respirable Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	Non-attainment	150 µg/m ³	Attainment
	Annual Arithmetic Mean	20 µg/m ³	Non-attainment	--	--
Fine Particulate	24-hour	--	--	35 µg/m ³	Non-attainment

**Table IV.B-1
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
	Annual Arithmetic Mean	12 µg/m ³	Non-attainment	12 µg/m ³	Non-attainment
Carbon Monoxide (CO)	8-hour	9.0 ppm (10 mg/m ³)	Attainment	9 ppm (10 mg/m ³)	Unclassified/Attainment
	1-hour	20 ppm (23 mg/m ³)	Attainment	35 ppm (40 mg/m ³)	Maintenance
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.03 ppm (57 µg/m ³)	Attainment	53 ppb (100 µg/m ³)	Unclassified/Attainment
	1-hour	0.18 ppm (338 µg/m ³)	Attainment	100 ppb (188 µg/m ³)	Unclassified/Attainment
Sulfur Dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	Attainment	--	Attainment
	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	Attainment	--	--
	Calendar Quarter	--	--	0.15 µg/m ³	Non-attainment

N/A = CARB has not determined 8-hour O₃ attainment status
Maintenance areas are geographic areas with a history of non-attainment that have been redesignated by USEPA to "attainment with a maintenance plan" that will protect the area from slipping back into nonattainment.
 Source: CARB, Ambient Air Quality Standards, and attainment status, accessed July 30, 2018 (www.arb.ca.gov/desig/adm/adm.htm).

(3) Regional

a. South Coast Air Quality Management District (SCAQMD)

The 1977 Lewis Air Quality Management Act merged four air pollution control districts creating the SCAQMD to coordinate air quality planning efforts throughout Southern California. It 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. Programs 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 monitors air quality over its jurisdiction of 10,743 square miles, including the South Coast Air Basin, which covers an area of 6,745 square miles and 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. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SCAQMD also regulates the Riverside County portion of the Salton Sea Air Basin and Mojave Desert Air Basin.

All areas designated as nonattainment under the CCAA are required to prepare plans showing how they will meet the air quality standards. The SCAQMD prepares the Air Quality Management Plan (AQMP) to address CAA and CCAA requirements by identifying policies and control measures. On March 3, 2017, the SCAQMD approved the 2016 AQMP, which includes strategies to meet the NAAQS for the 8-hour ozone standard by 2032, the annual PM_{2.5} standard by 2021-2025, the 1-hour ozone standard by 2023, and the 24-hour PM_{2.5} standard by 2019. In its role as the local air quality regulatory agency, the SCAQMD also provides guidance on how environmental analyses should be prepared. This includes recommended thresholds of significance for evaluating air quality impacts in CEQA documents.

SCAQMD includes regulations that apply to development projects, including Rule 403, which governs fugitive dust emissions. As such, construction-related emissions of particulates would be required to be reduced through the use of best management practices, such as watering of unpaved surfaces and covering of haul trucks used to transport soils and other loose materials.

b. Southern California Association of Governments (SCAG)

SCAG assists by preparing the transportation portion of the AQMP through the adoption of its Regional Transportation Plan (RTP). The basis for these transportation plans are regional growth forecasts that forecast cumulative growth over the six-county region that ultimately are used to create air quality emissions budgets that help the region determine how to achieve clean air standards. This also includes the preparation of a Sustainable Communities Strategy (SCS) that responds to planning requirements of SB 375 and demonstrates the region's ability to attain greenhouse gas reduction targets set forth in State law. In April 2016, SCAG adopted its 2016-2040 RTP/SCS, a plan to invest \$556.5 billion in transportation systems over a six-county region.

(4) Local – Air Quality Element, City of Los Angeles General Plan

The City's General Plan includes an Air Quality Element that provides a policy framework that governs air quality planning within the City of Los Angeles. Adopted in November 1992, the Plan includes goals, objectives, and policies that help define how

the City will achieve its clean air goals. The Air Quality Element's six goals are as follows:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimize impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

c. Existing Conditions

(1) Regional Air Quality

The Project Site is located within the Los Angeles County non-desert portion of the South Coast Air Basin. The Basin is in an area of high air pollution potential due to its climate and topography. The 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 that help to form smog. While temperature typically decreases with height, it actually increases under inversion conditions as altitude increases, thereby preventing air close to the ground from mixing with the air above. 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 NO₂ 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.

Air quality problems also occur during the fall and winter, when CO and NO₂ emissions tend to be higher. CO concentrations are generally worse in the morning and late evening (around 10:00 p.m.) when temperatures are cooler. High CO levels during the late evenings result from stagnant atmospheric conditions trapping CO. Since CO emissions are produced almost entirely from automobiles; the highest CO concentrations in the Basin are associated with heavy traffic. NO₂ concentrations are also generally higher during fall and winter days.

(2) Local Air Quality

a. Existing Pollutant Levels at Nearby Monitoring Stations

The SCAQMD monitors air quality conditions at 38 locations throughout the Basin. The Project Site is located in SCAQMD's Central Los Angeles receptor area. Historical data from the area were used to characterize existing conditions in the vicinity of the Project area. Table IV.B-2 below shows pollutant levels, State and federal standards, and the number of exceedances recorded in the area from 2015 through 2017. The one-hour State standard and 8-hour federal standard for O₃ was exceeded ten times and 18 times, respectively, during this three-year period, the daily State standard for PM₁₀ was exceeded 85 times while the daily federal standard for PM_{2.5} was exceeded 14 times. CO and NO₂ levels did not exceed the CAAQS from 2015 to 2017 for 1-hour (and 8-hour for CO).

Table IV.B-2
2015-2017 Ambient Air Quality Data in Project Vicinity

Pollutant	Pollutant Concentration & Standards	Central Los Angeles		
		2015	2016	2017
Ozone	Maximum 1-hour Concentration (ppm)	0.104	0.103	0.116
	Days > 0.09 ppm (State 1-hour standard)	2	2	6
	Days > 0.070 ppm (Federal 8-hour standard)	0	4	14
Carbon Monoxide	Maximum 1-hour Concentration (ppm)	3.2	1.9	1.9
	Days > 20 ppm (State 1-hour standard)	0	0	0
	Maximum 8-hour Concentration (ppm)	1.8	1.4	1.6
	Days > 9.0 ppm (State 8-hour standard)	0	0	0
Nitrogen Dioxide	Maximum 1-hour Concentration (ppm)	0.0791	0.0647	0.0806
	Days > 0.18 ppm (State 1-hour standard)	0	0	0
PM ₁₀	Maximum 24-hour Concentration (µg/m ³)	88	67	96
	Days > 50 µg/m ³ (State 24-hour standard)	26	18	41
PM _{2.5}	Maximum 24-hour Concentration (µg/m ³)	56.4	44.4	49.2

	Days > 35 $\mu\text{g}/\text{m}^3$ (Federal 24-hour standard)	7	2	5
Sulfur Dioxide	Maximum 24-hour Concentration (ppb)	12.6	13.4	5.7
	Days > 0.04 ppm (State 24-hour standard)	0	0	0
Source: SCAQMD annual monitoring data (www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year) accessed April 14, 2019. N/A: Not available at this monitoring station.				

b. Existing Emissions and Surrounding Uses

(i) Existing Project Site Emissions

Existing development on the Project Site includes a 2,018 square-foot single-family residence. As shown in Table IV.B-3, the residence produces negligible emissions of criteria pollutants on a daily basis.

**Table IV.B-3
Estimated Existing Emissions**

Emission Source	Pounds Per day					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Sources	<1	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	<1	<1	<1	<1	<1	<1
Net Regional Total	<1	<1	<1	<1	<1	<1
Source: DKA Planning 2018 based on CalEEMod 2016.3.2 model runs, included in Appendix D of this Draft EIR.						

(ii) Sensitive Receptor Locations

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. 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, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

There are several existing or reasonably foreseeable sensitive receptors near the Project Site, including the following:

- Single-family residence at 2617 Larmar Road; as close as 700 feet northeast of the Project Site.

- Single-family residence at 2675 Larmar Road; as close as 840 feet north of the Project Site.
- Single-family residence at 2289 Chelan Drive; as close as 750 feet east of the Project Site.
- Single-family residence at 2665 Solar Drive; as close as 950 feet northwest of the Project Site.

A map of these sensitive receptors is provided in Figure IV.B-1, Air Quality Sensitive Receptor Location Map.

3. Project Impacts

a. Thresholds of Significance

(1) State CEQA Guidelines Appendix G

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

Threshold (a): *Conflict with or obstruct implementation of the applicable air quality plan; or*

Threshold (b): *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; or*

Threshold (c): *Expose sensitive receptors to substantial pollutant concentrations; or*

Threshold (d): *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

(2) 2006 L. A. CEQA Thresholds Guide

To assist in answering the Appendix G Threshold questions and thresholds provided by AQMD, this analysis utilizes factors and considerations identified below from the 2006 L.A. CEQA Thresholds Guide, as appropriate.

Air Quality Construction Emissions

- *Combustion Emissions from Construction Equipment;*
 - *Type, number of pieces and usage for each type of construction equipment;*

- *Estimated fuel usage and type of fuel (diesel, natural gas) for each type of equipment; and*
- *Emission factors for each type of equipment.*
- *Fugitive Dust*
- *Grading, excavation, and hauling;*
 - *Amount of soil to be disturbed on-site or moved off-site;*
 - *Emission factors for disturbed soil;*
 - *Duration of grading, excavation and hauling activities;*
 - *Type and number of pieces of equipment to be used; and*
 - *Projected haul route.*
- *Heavy-Duty Equipment Travel on Unpaved Roads;*
 - *Length and type of road;*
 - *Type, number of pieces, weight and usage of equipment; and*
 - *Type of soil.*
- *Other Mobile Source Emissions*
 - *Number and average length of construction worker trips to project site, per day; and*
 - *Duration of construction activities.*

Air Quality Operational Emissions

- *Operational emissions exceed 10 tons per year of volatile organic gases or any of the daily thresholds presented below (as reprinted from the CEQA Air Quality Handbook):*

Pollutant	Significance Threshold (lbs/day)
VOC	55
NO _x	55
CO	550
PM ₁₀	150
SO _x	150

- *Either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:*
 - *The proposed project causes or contributes to an exceedance of the California 1-hour or 8-hour CO standards of 20 or 9.0 parts per million (ppm), respectively; or*

- *The incremental increase due to the project is equal to or greater than 1.0 ppm for the California 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.*
- *The project creates an objectionable odor at the nearest sensitive receptor.*

Toxic Air Contaminants

The determination of significance shall be made on a case-by-case basis, considering the following factors:

- The regulatory framework for the toxic material(s) and process(es) involved;
- The proximity of the toxic air contaminants to sensitive receptors;
- The quantity, volume and toxicity of the contaminants expected to be emitted;
- The likelihood and potential level of exposure; and
- The degree to which project design will reduce the risk of exposure.”

(3) SCAQMD’s CEQA Air Quality Handbook

The City of Los Angeles utilizes the SCAQMD’s CEQA Air Quality Handbook and the thresholds of significance in Tables IV.B-4 and IV.B-5 below as the guidance documents for the environmental review of development proposals within the Air Basin.

Construction Emissions

Based on the criteria set forth in the SCAQMD’s CEQA Air Quality Handbook, the Project may have a significant impact if any of the following would occur:

- Daily regional construction emissions exceed SCAQMD construction emissions thresholds for VOC, NO_x, CO, SO_x, PM_{2.5}, or PM₁₀, as presented on Table IV.B-4;
- Daily localized construction emissions exceed SCAQMD construction localized significance thresholds for NO and CO, as presented on Table IV.B-4; localized emissions are those that are identified by SCAQMD as having the potential to have localized impacts on human health from direct emissions;
- Maximum on-site localized PM₁₀ or PM_{2.5} emissions during construction exceed the applicable LSTs, resulting in predicted ambient concentrations in the vicinity of the Project Site to exceed the incremental 24-hr threshold of 10.4 µg/m³ or 1.0 µg/m³ PM₁₀ averaged over an annual period.

- Project emissions of Toxic Air Contaminants increases maximum incremental cancer risk by 10 or more in a million, results in an 0.5 excess cancer cases in areas with background risk of 1 or more in a million, or increases the chronic and acute hazard index by 1.0 or more.

**Table IV.B-4
SCAQMD Construction Emissions Thresholds**

Criteria Pollutant	Regional Emissions (Pounds Per Day)	Localized Emissions (Pounds Per Day) /a/
Volatile Organic Compounds (VOC)	75	--
Nitrogen Oxides (NO _x)	100	126
Carbon Monoxide (CO)	550	3,016
Sulfur Oxides (SO _x)	150	--
Fine Particulates (PM _{2.5})	55	80
Particulates (PM ₁₀)	150	28

/a/ Localized thresholds based on two-acre site with 200-meter receptor distances to receptors in the Central Los Angeles County receptor area. Though the site is approximately 4.5 acres, this analysis conservatively used the thresholds for a smaller site, per SCAQMD guidance. SCAQMD LST thresholds are established for 1, 2, and 5 acres. Reliance on the smaller threshold of 2 acres ensures that the analysis holds the Project's impacts to a threshold more stringent than would otherwise be the case, as the five-acre thresholds are higher due to the larger area over which emissions are able to disperse.

Operational Emissions

Based on the criteria set forth in the SCAQMD's CEQA Air Quality Handbook, the Project may have a significant impact with regard to operational emissions if any of the following would occur:

- Daily operational emissions exceed SCAQMD regional thresholds for VOC, NO_x, CO, SO_x, PM_{2.5}, or PM₁₀, as presented on Table IV.B-5;
- Project-related traffic causes 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 ppm and 9.0 ppm, respectively;
- Maximum on-site localized operational PM₁₀ and PM_{2.5} emissions exceed the incremental 24-hr threshold of 2.5 µg/m³ or 1.0 µg/m³ PM₁₀ averaged over an annual period;⁴

⁴ SCAQMD, *Final-Methodology to Calculate Particulate Matter (PM) 2.5 and PM_{2.5} Significance Thresholds*, October 2006.

- The Project causes or contributes to an exceedance of the California 1-hour or 8 hour CO standards of 20 or 9.0 ppm, respectively; or
- The Project creates an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).

**Table IV.B-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
<i>Source: SCAQMD, 2012.</i>	

Toxic Air Contaminants (TACs)

Based on the criteria set forth in the SCAQMD's *CEQA Air Quality Handbook*, the Project may have a significant toxic air contaminant impact (including carcinogens and non-carcinogens), if the Project emits carcinogenic or toxic air contaminants that exceed the maximum incremental cancer risk as follows:

- *Maximum Incremental Cancer Risk ≥ 10 in 1 million*
- *Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million)*
- *Chronic & Acute Hazard Index ≥ 1.0 (project increment)*

Consistency with Applicable Air Quality Plans

To evaluate the Project's consistency with applicable air quality plans, the following criteria are used to evaluate the Project's consistency with the SCAQMD and SCAG regional plans and policies, including the AQMP:

- Criterion 1: Will the Project result in any of the following:
 - An increase in the frequency or severity of existing air quality violations;
 - Cause or contribute to new air quality violations; or
 - Delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP?
- Criterion 2: Will the Project exceed the assumptions utilized in preparing the AQMP?

-
- Is the Project consistent with the population and employment growth projections upon which AQMP forecasted emission levels are based;
 - Does the Project include air quality mitigation measures; or
 - To what extent is Project development consistent with the AQMP land use policies?

Projects that are consistent with growth forecasts for housing and population in these plans are deemed to be consistent with the region's air quality plans to achieve ozone and other ambient air quality standards for the region. As such, this analysis compares the growth impacts of the project against the 2016 AQMP and RTP/SCS. In addition, the Project's consistency with the City of Los Angeles General Plan Air Quality Element is discussed.

b. Methodology

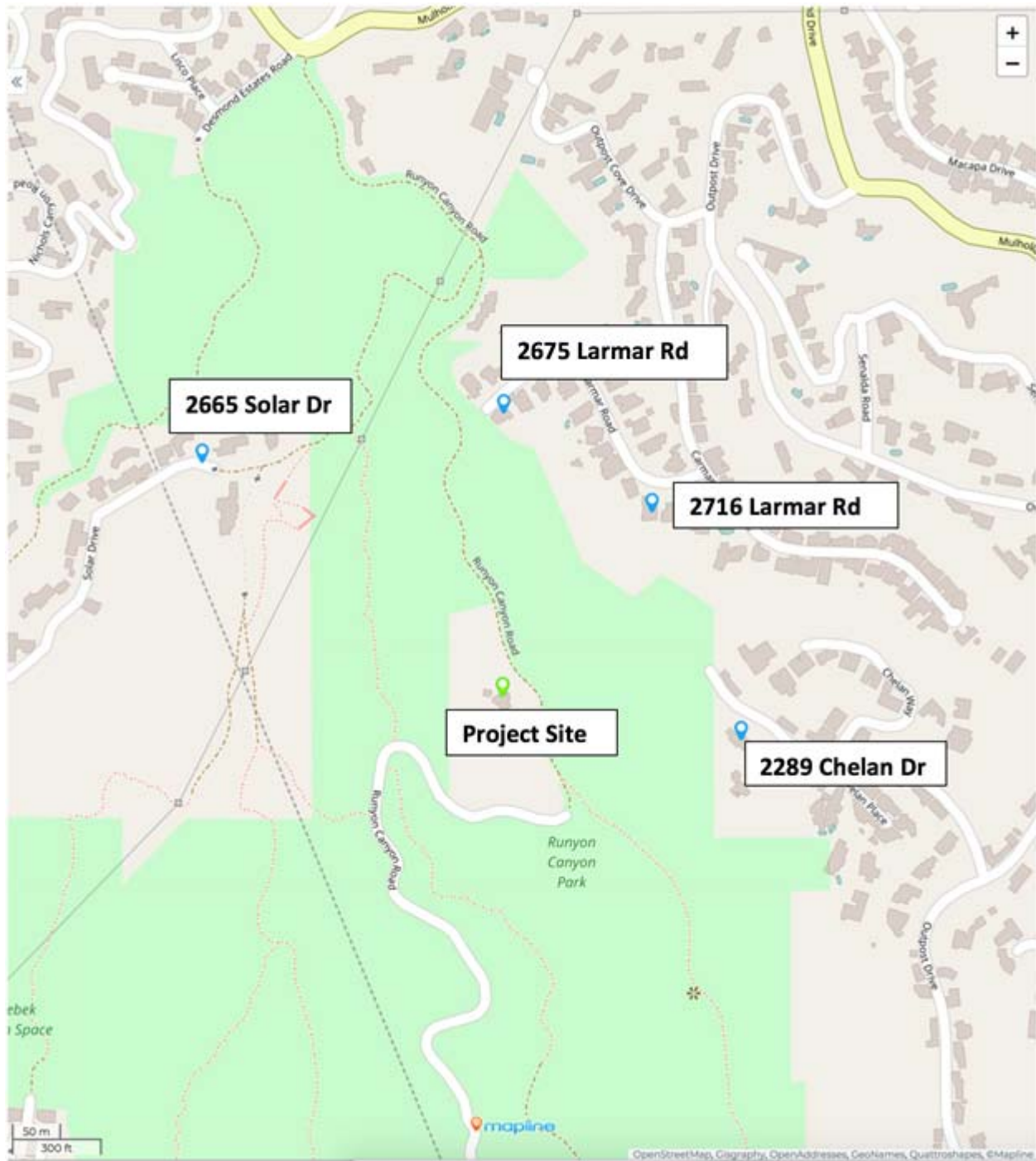
The following paragraphs describe the methodology used to analyze the Project's impacts with respect to air quality:

(1) Construction Emissions Methodology

Regional Emissions

This analysis uses the CalEEMod air quality model (version 2016.3.2) to estimate gross emissions of criteria pollutants for regional emissions. To assess the impact on regional air quality, modeling results from both on-site (e.g., energy and area sources) and off-site sources (e.g., motor vehicles) are compared to SCAQMD's significance thresholds.

Figure IV.B-1, Air Quality Sensitive Receptor Location Map



Localized Emissions

This analysis uses the CalEEMod air quality model (version 2016.3.2) to estimate gross emissions of criteria pollutants for localized emissions. To assess the impact on localized air quality, modeling results from on-site sources such as energy use and area sources are compared to localized significance thresholds (LSTs) established by the SCAQMD. These screening thresholds factor in construction site size and proximity of sensitive receptors to establish thresholds of gross emissions that could result in localized exceedances of air quality standards when dispersed over a particular project site.

(2) Operational Emissions Methodology

This analysis uses the CalEEMod air quality model (version 2016.3.2) to estimate gross emissions of criteria pollutants for operational emissions. To assess the operational impact on regional air quality, modeling results from the following sources are evaluated: (1) energy; (2) area; (3) mobile; and (4) stationary. Energy source emissions are emissions associated with electricity and natural gas. Area source emissions are emissions from small pollution sources, such as landscaping equipment. Mobile source emissions are emissions from motor vehicles. Finally, stationary source emissions are emissions from fixed sources, such as a generator, or on a larger scale, a power plant or refinery.

The Project's net increase in regional operational emissions is compared to LSTs established by the SCAQMD. Operational impacts on regional air quality are based on the on- and off-site emissions from the Project and are compared to the SCAQMD's regional thresholds of significance.

c. Project Design Features

The Project would incorporate project design features to support and promote environmental sustainability as discussed in Section II, Project Description, of this Draft EIR. While these features are designed primarily to reduce greenhouse gas emissions, they would also serve to reduce criteria air pollutants discussed herein.

d. Analysis of Project Impacts

Threshold (a): Would the Project conflict with or obstruct implementation of the applicable air quality plan?

In accordance with the procedures established in the SCAQMD's CEQA Air Quality Handbook, the analysis below evaluates the Project's consistency with applicable SCAQMD and SCAG policies, inclusive of regulatory compliance, air quality

standards, and population and employment growth projects upon which AQMP forecasted emission levels are based.

(1) Consistency with the AQMP and SCAG 2016 RTP/SCS

The Project's residential uses would neither conflict with the SCAQMD's 2016 AQMP nor jeopardize the region's attainment of air quality standards. The AQMP focuses on achieving clean air standards while accommodating population growth forecasts by SCAG. Specifically, SCAG's growth forecasts from the 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) are largely built off local growth forecasts from local governments like the City of Los Angeles. The 2016 RTP/SCS accommodates future growth in the City of Los Angeles by 2040, including the following projections:

- Population: 4,609,400 persons in 2040;
- Households: 1,690,300 households in 2040; and
- Employment: 2,169,100 jobs in 2040.

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, and in the Initial Study (Appendix A of this Draft EIR), the Project involves the construction of only one single-family residential structure, and would not result in additional population generation as the residents of the existing single-family residence would move into the new, proposed single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the Project would not increase the population in the South Coast Air Basin. In addition, the SCAQMD has accounted for growth that is consistent with the local General Plans and SCAG's RTP and identified a strategy and corresponding control measures that accommodate such growth in emissions and offset them in order to help achieve attainment of regional ozone and other clean air standards. As such, the Project does not conflict with the growth assumptions in the regional air plan and this potential impact is considered less than significant.

The air quality impacts of residential development on the Project Site are accommodated in the region's emissions inventory for the 2016 RTP/SCS and 2016 AQMP. Specifically, the SCAQMD has accounted for growth that is consistent with the City's General Plan and SCAG's RTP/SCS and identified a strategy and corresponding control measures that accommodate such growth in emissions and offset them in order to help achieve attainment of regional ozone and other clean air standards. The Project is therefore not expected to conflict with or obstruct implementation of the AQMP, and impacts regarding consistency with the AQMP would be less than significant.

(2) Consistency with the City's General Plan Air Quality Element

As stated previously, the City of Los Angeles General Plan Air Quality Element was adopted on November 24, 1992 and sets forth the goals, objectives, and policies, which guide the City in the implementation of its air quality improvement programs and strategies.

The Air Quality Element establishes six goals:

- Good air quality in an environment of continued population growth and healthy economic structure;
- Less reliance on single-occupant vehicles with fewer commute and non-work trips;
- Efficient management of transportation facilities and system infrastructure using cost-effective system management and innovative demand-management techniques;
- Minimal impacts of existing land use patterns and future land use development on air quality by addressing the relationship between land use, transportation and air quality;
- Energy efficiency through land use and transportation planning, the use of renewable resources and less-polluting fuels and the implementation of conservation measures including passive measures such as site orientation and tree planting; and
- Citizen awareness of the linkages between personal behavior and air pollution and participation in efforts to reduce air pollution.

In addition, the Air Quality Element identifies 30 policies that identify specific strategies for advancing the City's clean air goals. Project consistency with policies applicable to the Project is illustrated in Table IV.B-6 below.

Table IV.B-6
Project Consistency with the General Plan Air Quality Element

Policy	Analysis
Policy 1.3.1 Minimize particulate emissions from construction sites.	Consistent. The Project would minimize particulate emissions during construction through best practices required by SCAQMD Rule 403 (Fugitive Dust).
Policy 1.3.2 Minimize particulate emissions from unpaved roads and parking lots, which are associated with vehicular traffic.	Consistent. The Project would not include development of any unpaved roads or unpaved parking lots.
Policy 3.2.1. Manage traffic congestion during peak hours.	Consistent. As discussed in Section IV.M (Transportation) of this Draft EIR, the Project would generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move into the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters.
Policy 4.1.1. Coordinate with all appropriate regional agencies on the implementation of strategies for the integration of land use, transportation, and air quality policies.	Not Applicable. The Project is being entitled through the City of Los Angeles, which coordinates with SCAG, Los Angeles County Metropolitan Transportation Authority, and other regional agencies on land use, air quality, and transportation policies, as necessary. While this policy does not apply to projects, the Project would not interfere with the pursuit of these policy objectives.
Policy 4.1.2. Ensure that project level review and approval of land use development remains at the local level.	Consistent. The Project would be entitled and environmentally cleared at the local level.
Policy 4.2.3 Ensure that new development is compatible with pedestrians, bicycles, transit, and alternative fuel vehicles.	Consistent. As discussed in Section IV.M (Transportation) of this Draft EIR, the Project would not result in any additional residents at the Project Site when compared to existing uses and would therefore not result in any transit trips, or in any additional residents who would use bicycle or pedestrian facilities. Further, development of the Project would not result in any change to the ability of pedestrians and hikers to access Runyon Canyon Road and other hiking trails throughout the park, as development would be confined to the Project Site.
Policy 4.2.4 Require that air quality impacts be a consideration in the review and approval of all discretionary projects.	Consistent. The Project's air quality impacts are analyzed in this section. The air quality analyses will be considered by the local decision-maker in the Project review and approval process.
<i>Table: CAJA Environmental Services, 2019.</i>	

As illustrated in Table IV.B-6 above, the Project is consistent with the applicable policies in the General Plan Air Quality Element, and therefore, Project impacts related to General Plan consistency would be less than significant.

(3) Conclusion

The air quality impacts of the proposed development on the Project Site are accommodated in the region's emissions inventory for the 2016 RTP/SCS and 2016 AQMP. Specifically, the SCAQMD has accounted for growth that is consistent with the City's General Plan and SCAG's RTP/SCS and identified a strategy and corresponding control measures that accommodate such growth in emissions and offset them in order to help achieve attainment of regional ozone and other clean air standards.

The Project would not conflict with or obstruct implementation of the AQMP, and impacts regarding consistency with the AQMP would be less than significant. Similarly, the Project is consistent with the City's General Plan Air Quality Element's policies and would not conflict with the applicable goals and policies. **Therefore, impacts regarding consistency with the applicable air quality plans would be less than significant.**

Threshold (b): Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, and in the Initial Study (Appendix A of this Draft EIR), the Project would not result in any cumulatively considerable net increase of any non-attainment regional pollutants. **A less than significant impact would occur with respect to Threshold (b). No further analysis is required.**

Threshold (c): Would the Project expose sensitive receptors to substantial pollutant concentrations?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, and in the Initial Study (Appendix A of this Draft EIR), the Project would not expose sensitive receptors to substantial pollutant concentrations. **A less than significant impact would occur with respect to Threshold (c). No further analysis is required.**

Threshold (d): Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, and in the Initial Study (Appendix A of this Draft EIR), the Project would not result in other emissions, such as those leading to odors, affecting a substantial number of people. **A less than significant impact would occur with respect to Threshold d. No further analysis is required.**

4. Cumulative Impacts

The Project combined with the five related projects in the Project vicinity would generate more emissions cumulatively. As such, the Project would contribute to cumulative short-term emissions during the construction phase and long-term emissions during the operational phase. SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified above also be considered cumulatively considerable.⁵ Conversely, individual projects that generate emissions not in excess of SCAQMD's significance thresholds would not contribute considerably to any potential cumulative impact. Regardless, projects that comply with applicable SCAQMD rules (e.g., Rule 403 controlling fugitive dust emissions) would help address and reduce contributions to cumulative air quality impacts. It should be noted that the five related projects are all more than 1,000 feet away from the Project Site and would not contribute substantially to cumulative air quality impacts at receptors near the Project Site.

SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions. As described previously, the Project would result in less than significant impacts with respect to air quality emissions. Therefore, the Project would not contribute to a significant cumulative impact related to air quality emissions.

a. AQMP and SCAG 2016 RTP/SCS

Cumulative development is not expected to result in a significant impact in terms of conflicting with, or obstructing implementation of the 2016 AQMP. As discussed previously, growth considered to be consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Consequently, as long as growth in the Basin is within the projections for growth identified in the 2016 RTP/SCS, implementation of the AQMP would not be obstructed by such growth and impacts would not be considered to be cumulatively considerable. Like the Project, the five related projects propose single-family homes on sites zoned for such uses. Therefore, the population growth resulting from the Project combined with the five related projects would be consistent with the growth projections of the 2016 RTP/SCS. **Therefore, the Project's contribution to the cumulative**

⁵ *White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollutant Emissions, SCAQMD Board Meeting, September 5, 2003, Agenda No. 29, Appendix D, p. D-3.*

impact to the AQMP would not be cumulatively considerable and impacts would be less than significant.

b. Air Quality Element

As discussed previously, the Project is consistent with the City's General Plan Air Quality Element's policies and would not conflict with the applicable goals and policies. Further, as the five related projects also propose single-family homes on sites zoned for such uses, the related projects would also not conflict with the applicable goals and policies of the Air Quality Element. Cumulative growth of the region is accommodated in the emissions budget and is the basis for the ozone and particulate matter attainment planning for the region. **Therefore, the Project's contribution to the cumulative impact to the AQMP would not be cumulatively considerable and impacts would be less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts with regard to air quality would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

C. Biological Resources

1. Introduction

This section evaluates the Project's potential impacts with respect to biological resources, including potential impacts to candidate, sensitive, or special status species; potential impacts to wildlife movement; and the Project's potential to conflict with policies or ordinances protecting biological resources. The information and analysis in this section is primarily based on the following reports:

E-1 Protected Tree Report, The Tree Resource, October 25, 2016.

E-2 Biological Technical Report, The Property at 3003 Runyon Canyon Road, Glenn Lukos Associates, July 2018.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

a. Federal Endangered Species Act

Pursuant to Section 7 of the Federal Endangered Species Act (FESA), any federal agency undertaking a federal action (including issuance of Section 404 permits) that may affect a species listed or proposed as threatened or endangered under the FESA must consult with U.S. Fish and Wildlife Service (USFWS). In addition, any federal agency undertaking a federal action that may result in adverse modification of critical habitat for a federally listed species must consult with USFWS.

Various actions, including the "take" (e.g., harm, harass, pursue, injure, kill) of an animal species listed as threatened or endangered are regulated by the FESA. Destruction or adverse modification of habitat, either directly or indirectly, also constitutes a "take." Section 7 and Section 10 of the FESA provide procedures for permitting takes that are incidental to, and not the purpose of, the carrying out of otherwise lawful activity (such as construction activity) in coordination with USFWS review. The USFWS may provide comments and recommendations outside their regulatory authority even if it is determined that a project will not adversely affect an endangered species.

The USFWS also regulates the “take” of migratory birds under the Migratory Bird Treaty Act, which provides that it is unlawful to “pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not.” The USFWS maintains a list of migratory birds that are protected under the Act.

The FESA defines an endangered species as “any species that is in danger of extinction throughout all or a significant portion of its range.” A threatened species is defined as “any species which is likely to become an endangered species in the foreseeable future throughout all or significant portions of its range.” The Sacramento, California USFWS Field Office describes a Federal Species of Concern (FSC) as “a sensitive species that has not been listed, proposed for listing, or placed in candidate status (USFWS 2015).” The FSC receives no legal protection and use of the term does not necessarily mean the species will eventually be proposed for listing as a threatened or endangered species. The federal listing statuses are as follows:

- **FE** Federally listed as Endangered
- **FT** Federally listed as Threatened
- **FPT** Federally Proposed as Threatened
- **FPE** Federally Proposed as Endangered
- **FPD** Federally Proposed for delisting
- **FC** Federal Candidate Species
- **FSC** Federal Species of Concern

b. Migratory Bird Treaty Act

Migratory birds including resident raptors and passerines are protected under the federal Migratory Bird Treaty Act (MBTA). The MBTA of 1918 implemented the 1916 convention between the U.S. and Great Britain for the protection of birds migrating between the U.S. and Canada. Similar conventions between the United States and Mexico (1936), Japan (1972) and the Union of Soviet Socialist Republics (1976) further expanded the scope of international protection of migratory birds. Each new treaty has been incorporated into the MBTA as an amendment and the provisions of the new treaty are implemented domestically. These four treaties and their enabling legislation, the MBTA, established Federal responsibilities for the protection of nearly all species of birds, their eggs and nests.

The MBTA made it illegal for people to "take" migratory birds, their eggs, feathers or nests. Take is defined in the MBTA to include by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg, or part thereof.

(2) State – California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the FESA in that it contains a process for listing of species regulating potential impacts to listed species. Section 2081 of the CESA authorizes the California Department of Fish and Wildlife (CDFW) to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes.

The CESA defines an endangered species as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.” The state defines a threatened species as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts. Any animal determined by the [California Fish and Wildlife] commission as rare on or before January 1, 1985 is a threatened species.” A candidate species is defined as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Commission has formally noticed as being under review by the CDFW for addition to either the list of endangered species or the list of threatened species, or a species for which the Commission has published a notice of proposed regulation to add the species to either list.” Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Commission. Unlike FESA, CESA does not include listing provisions for invertebrate species. The State listing statuses are as follows:

- **SE** State listed as Endangered
- **ST** State listed as Threatened
- **SR** State listed as Rare (plants only)
- **CSC** California Species of Special Concern
- **CWL** California Watch List
- **SFP** State Fully Protected

- **SP** State Protected
- **SCE** State Candidate for Endangered
- **SCT** State Candidate for Threatened
- **Special Animal** CNDDDB Special Animal

The State of California also maintains the California Natural Diversity Database (the “CNDDDB”), which is a computerized inventory of information on the location of California’s rare, threatened, endangered, and otherwise sensitive plants, animals, and natural communities published by the CDFW. Updates to the CNDDDB are issued twice annually. Valuable information regarding the species’ occurrences, population numbers, observers, occurrence dates, and potential threats to the organism(s) are included for each occurrence record.

The California Native Plant Society (the “CNPS”) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS separates plants of interest into five categories. The CNPS has compiled an inventory comprised of the information focusing on the geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as Threatened and Endangered by the CDFW. The five categories within the CNPS are as follows:

- **CRPR 1A** Presumed extinct in California
- **CRPR 1B** Rare, threatened, or endangered in California and elsewhere
- **CRPR 2** Rare, threatened, or endangered in California, but more common elsewhere
- **CRPR 3** Plants about which more information is needed (review list)
- **CRPR 4** Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat

Additionally, the CNPS assigns a “Threat Rank” as an extension to the above categories that designates the level of endangerment by a 1 to 3 ranking, with 1 being the most endangered and 3 being the least endangered.

(3) Local

a. City of Los Angeles General Plan Conservation and Open Space Element

The General Plan Conservation Element, adopted in 2001, contains policies related to the identification and protection of sensitive plant and animal species, as well as significant habitat areas. The following policies from the Conservation Element are applicable to the Project:

- Endangered Species, Policy 1: continue to require evaluation, avoidance, and minimization of potential significant impacts, as well as mitigation of unavoidable significant impacts on sensitive animal and plant species and their habitats and habitat corridors relative to land development.
- Habitats, Policy 1: continue to identify significant habitat areas, corridors, and buffers and to take measures to protect, enhance, and/or restore them.

b. City of Los Angeles Protected Tree Ordinance

Section 17.02 of the Los Angeles Municipal Code (LAMC) defines a protected tree as any of the following Southern California native tree species that measures four inches or more in cumulative diameter, four and one half feet above the ground level at the base of the tree:

- (a) Oak tree including Valley Oak (*Quercus lobata*) and California Live Oak (*Quercus agrifolia*), or any other tree of the oak genus indigenous to California but excluding the Scrub Oak (*Quercus dumosa*)
- (b) Southern California Black Walnut (*Juglans californica* var. *californica*)
- (c) Western Sycamore (*Platanus racemosa*)
- (d) California Bay Laurel (*Umbellularia californica*)

In addition, Mexican Elderberry (*Sambucus nigra* ssp. *caerulina*) and Toyon (*Heteromeles arbutifolia*) are under consideration by the City of Los Angeles to be included in the LAMC as “protected trees.” Further, the definition of “protected trees” shall not include any tree grown or held for sale by a licensed nursery, or trees planted or grown as a part of a tree planting program. To qualify for protection, individual plants must also measure 4 inches or more in cumulative diameter, 4.5 feet above the ground level at the base of the tree. The LAMC permits the City’s Board of Public Works to grant permission to remove or relocate these species.

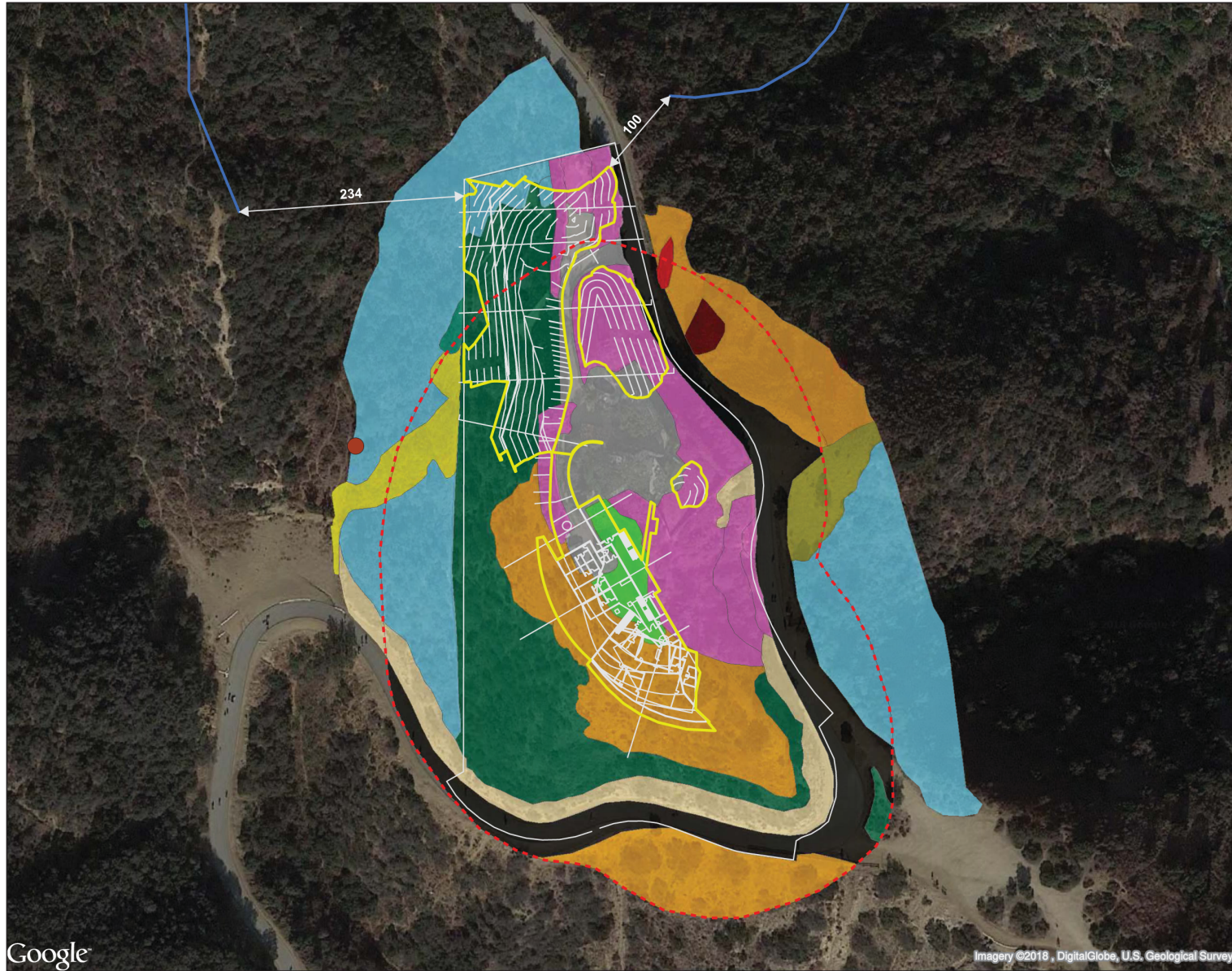
b. Existing Conditions

The approximately 4.5-acre Project Site is adjacent to Runyon Canyon Road on the east and southern edges, and is surrounded by open space/parkland. Furthermore, the Biological Survey Area is located within the boundaries of Runyon Canyon Park (the boundaries of the Biological Survey Area are shown in Figure IV.C-1). Elevations within the Biological Survey Area range from roughly 950 to 1,150 feet above mean sea level. The entire 4.5-acre property, as well as surrounding areas associated with the Project, was subject to vegetation mapping and general biological surveys, in order to include the entire fuel modification zone, which currently exists and is maintained pursuant to LAFD requirements.

The majority of the Project Site consists of developed land or area subject to ongoing fuel modification as required by the City of Los Angeles Fire Department (LAFD). Areas surrounding the Project Site within the Biological Survey Area support native vegetation communities including chaparral and coastal sage scrub. The northern, western, and southeastern corner of the Biological Survey Area consist of a mixed chaparral habitat while the southern and northeastern portions consist of existing fuel modification zones.¹ Surrounding land uses include residential properties and recreational park usage within the boundaries of Runyon Canyon Park, which is owned by the City of Los Angeles.

The following provides the results of general reconnaissance, vegetation mapping, habitat assessments for special-status plants and wildlife, and focused surveys for special-status plants and wildlife undertaken as part of the Biological Technical Report (included as Appendix E-2 of this Draft EIR).

¹ *A fuel modification zone is a strip of land where combustible vegetation has been removed and/or modified and partially or totally replaced with more adequately spaced, drought-tolerant, fire resistant plants in order to provide a reasonable level of protection to structures from wildland fires.*

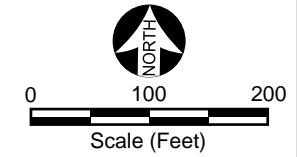


- ↔ Distance to Blueline Drainage in Feet
- Approximate Location of Blueline Drainage
- Impact Boundary
- Approximate FMZ Limits
- Site Plan
- Cliff
- Coastal Sage Scrub
- Developed
- Developed/Existing Residential
- FMZ
- FMZ/Mixed Chaparral
- Mixed Chaparral
- Non-Native Grassland
- Ornamental
- Ruderal
- Sugar bush
- Toyon
- Turf
- California Walnut

Coordinate System: State Plane 5 NAD 83
 Projection: Lambert Conformal Conic
 Datum: NAD83
 Map Prepared by: C. Lukos, GLA
 Date Prepared: June 20, 2018

Google

Imagery ©2018, DigitalGlobe, U.S. Geological Survey



Source: Glenn Lukos Associates, 2018.

Figure IV.C-1
 Biological Survey Area

(1) Botanical Resources

The Biological Survey Area is largely vegetated with native, mixed chaparral, most of which has been subject to thinning associated with ongoing fuel modification as required by Los Angeles County Fire Department, as well as ornamental species. The southern boundary of the property, bordering Runyon Canyon Road, consists of a rocky cliff outcrop, which supports sparse, native vegetation that is not affected by fuel modification. The proposed land disturbance area for the residence and driveway improvements consists of turf and ornamental vegetation and limited areas of existing fuel modification vegetated with mixed chaparral species. The proposed area for increased fuel modification consists primarily of mixed chaparral, disturbed chaparral, and existing fuel modification zones. Also included in this expansion is a non-native grassland, a disturbed ruderal area, and patches of sugar bush and toyon individuals. None of the CNDDDB special-status habitats occur within the proposed construction footprint.

a. Vegetation Mapping

During vegetation mapping of the Biological Survey Area, 13 different vegetation/land use types were identified, which are described below. Table IV.C-1 provides a summary of vegetation types/land uses for the Biological Survey Area and the corresponding acreage.

**Table IV.C-1
Summary of Vegetation/Land Use Types for the Biological Survey Area**

Vegetation/Land Use Type	Area (Acres)
PROPERTY VEGETATION	
Developed	0.38
Developed/Existing Residential	0.50
FMZ/Mixed Chaparral	1.33
Mixed Chaparral	0.08
Ornamental	0.98
Cliff	0.32
FMZ	0.82
Turf	0.13
Property subtotal	4.54
OFFSITE VEGETATION	
Cliff	0.13
Coastal Sage Scrub	0.02
Developed	0.59
FMZ	0.82
FMZ/Mixed Chaparral	0.15
Mixed Chaparral	2.08
Non-Native Grassland	0.16

Ruderal	0.18
Sugar bush	0.01
Toyon	0.03
Offsite subtotal	4.17
Total Survey Area Vegetation/Land Use Acreage	8.71
Source: Biological Technical Report, Glenn Lukos Associates, contained in Appendix E-2 of this Draft EIR.	
Numbers may not reconcile due to rounding.	

(i) Mixed Chaparral

Approximately 2.16 acres of the Biological Survey Area, 0.08 acre within the property boundary and 2.08 acres outside the property, consist of chaparral vegetation with dominant species including sugar bush (*Rhus ovata*), laurel sumac (*Malosma laurina*), toyon (*Heteromeles arbutifolia*), and big pod ceanothus (*Ceanothus megacarpus*). A single California walnut tree (*Juglans californica*) occurs in this area on the western edge of the Biological Survey Area in the ephemeral drainage. These areas of mixed chaparral intergrade and include the following alliance in the MCV II: *Rhus ovata* Shrubland Alliance – Sugar bush chaparral (G4S4). This habitat also has assimilations with the *Malosma laurina* Shrubland Alliance – Laurel sumac scrub (G4S4) with *Rhus ovata* and *Ceanothus megacarpus* associations.

(ii) FMZ/Mixed Chaparral

Approximately 1.33 acres in the western and southern portion of the property, as well as 0.15 acre outside the property boundary, support disturbed chaparral vegetation in which the understory has been cleared for fuel modification. While some areas have a canopy ranging 20 to 50 percent cover due to clearing, the dominant species in this habitat is big pod ceanothus, which most closely matches the *Ceanothus megacarpus* Shrubland Alliance – Big pod ceanothus chaparral (G4S4). Other species occurring in this area include scattered individuals of laurel sumac, sugar bush, toyon, and mountain mahogany (*Cercocarpus betuloides*).

(iii) FMZ

Approximately 1.64 acres of the Biological Survey Area, 0.82 acre within the property boundary and 0.82 acre offsite, consist of fuel modification zones for the existing residence. These areas consist of low growing shrubs and ruderal species such as chamise (*Adenostoma fasciculatum*), California buckwheat (*Eriogonum fasciculatum*), California bush sunflower (*Encelia californica*), summer mustard (*Hirschfeldia incana*), Mediterranean grass (*Schismus barbatus*), and ripgut brome (*Bromus diandrus*). Approximately two lemonade berry individuals (*Rhus integrifolia*)

occur in the fuel modification zone on the northeastern edge of the Biological Survey Area. Due to the extent of clearing and/or thinning for fuel modification as required the City of Los Angeles Fire Department, this vegetation cover type does not have a close analog in the MCV II.

(iv) Toyon

Within the fuel modification zone, just outside the northeastern edge of the property, a patch of toyon covers approximately 0.03 acre of the Biological Survey Area belonging to the *Heteromeles arbutifolia* Shrubland Alliance – toyon chaparral (G4S4).

(v) Sugar Bush

Within the fuel modification zone, just outside the northeastern edge of the property, a patch of sugar bush covers approximately 0.01 acre of the Biological Survey Area belonging to the *Rhus ovata* Shrubland Alliance – Sugar bush chaparral (G4S4).

(vi) Coastal Sage Scrub

Approximately 0.02 acre outside the property boundary supports coastal sage scrub vegetation. Dominant species include California buckwheat, California sagebrush (*Artemisia californica*), and black sage (*Salvia mellifera*). Areas of coastal sage scrub intergrade and include the *Eriogonum fasciculatum* Shrubland Alliance – California buckwheat scrub (G5S5).

(vii) Cliff

Approximately 0.45 acre of the Biological Survey Area, 0.32 acre within the property boundary and 0.13 acre offsite, consists of a rocky cliff outcrop along the southern boundary of the property and along the northern edge of Runyon Canyon Road, as well as a small patch on the eastern edge of the property. This area will be avoided as it is not in the scope of the Project and will not require fuel modification. Component species include small-flowered melic (*Melica imperfecta*), California brickellbush (*Brickellia californica*), and California buckwheat. According to the MCV II, this area matches the *Eriogonum fasciculatum* Shrubland Alliance – California buckwheat scrub (G5S5).

(viii) Non-Native Grassland

Approximately 0.16 acre outside the property boundary, on the eastern edge of the Biological Survey Area within the extended fuel modification boundary, consists of a non-native annual grassland. Dominant species include ripgut brome, wild oat (*Avena fatua*), Mediterranean grass, and foxtail chess (*Bromus madritensis ssp. rubens*), with

occurrences of summer mustard and tree tobacco (*Nicotiana glauca*). This area of non-native grasses most closely matches the following alliances in the MCV II: *Bromus (diandrus, hordeaceus)*–*Brachypodium distachyon* Semi-Natural Herbaceous Stands – Annual brome grasslands and *Bromus rubens*–*Schismus (arabicus, barbatus)* Semi-Natural Herbaceous Stands – Red brome or Mediterranean grass grasslands.

(ix) Ruderal

Approximately 0.18 acre outside the property boundary but within the extended fuel modification zone is vegetated with ruderal species including summer mustard, tocalote (*Centaurea melitensis*), fountaingrass (*Pennisetum setaceum*), and non-native brome grasses (*Bromus* sp.). Several native species occur sporadically in this area including sacapellote (*Acourtia microcephala*) and black sage. Because of the predominance of summer mustard, this vegetation cover type most closely matches *Brassica (nigra)* and other Mustards Semi-Natural Herbaceous Stands – Upland mustards.

(x) Ornamental

Approximately 0.98 acre of the property consists of landscape planted species such as olive (*Olea europea*), ornamental pines, ornamental figs, and jasmine (*Jasminum multiflorum*).

(xi) Developed/Existing Residential

Approximately 0.50 acre of the property is covered by developed areas consisting of the existing residence and associated garage, driveway, and parking areas.

(xii) Turf

Approximately 0.13 acre of the property consists of a lawn/turf area that is associated with the existing residence.

(xiii) Developed

Approximately 0.38 acre within the Project Site and 0.59 acre offsite (but within the Biological Survey Area) is covered by developed areas consisting of Runyon Canyon Road and Runyon Canyon Park trails. This area borders the eastern and southern edges of the property.

b. Focused Botanical Surveys

No special-status plants, which include state- or federally- listed species and CNPS-designated plants, were detected within the Biological Survey Area. The habitat assessment for special-status plants determined that three special-status plant species had potential to occur within the property area and surrounding habitats: (1) Nevin's barberry; (2) Plummer's mariposa lily; and (3) Davidson's bush mallow. While the Biological Survey Area contains suitable habitat for Plummer's mariposa lily, it was determined that the species does not occur due to lack of detection. The species is a perennial bulbiferous herb that is easily identifiable during its blooming season (May-July) and is identifiable to genus (*Calochortus* sp.) for a few months after blooming when the fruit is present. Additionally, a reference site near Griffith Park was visited on June 16, 2018, approximately one week after the focused botanical survey at 3003 Runyon Canyon Road. This reference site, located above Innsdale Drive in Los Angeles, is at the same elevation as the given Biological Survey Area and contained many flowering Plummer's mariposa lily individuals. Phenology indicated that the flowers had been blooming for 2-3 weeks prior. Davidson's bush mallow and Nevin's barberry are shrubs that can be detected year-round. As such, these three target species would have been identifiable during the site visit.

Three additional special-status species, indicated in the CDFW response letter to the Notice of Preparation (NOP), had low potential to occur within the habitats on and surrounding the property: (4) many-stemmed *Dudleya*; (5) mesa horkelia; and (6) Braunton's milk-vetch. It was determined that habitat for many-stemmed *dudleya* was not suitable on the Project Site as this species has an affinity for clay soils. A reference site containing many-stemmed *dudleya* was visited on June 5, 2018, approximately one week prior to the focused botanical survey at 3003 Runyon Canyon Road. The reference site is located in a dedicated habitat reserve at Rancho Mission Viejo in Orange County. Many-stemmed *dudleya* remains dormant as an underground corm throughout the annual dry season, but the species was still in flower at the reference site, which is approximately 300 feet above mean sea level.

Focused surveys conducted for all six plant species within the property boundary and surrounding coastal sage scrub and chaparral habitats did not detect these or any other special-status plant species. It is noteworthy that there are no records for any of these six species in Runyon Canyon Park and thus the potential for the species to occur is very low. A complete list of plant species observed within the Biological Survey Area is provided in Appendix A of the Biological Technical Report (included as Appendix E-2 of this Draft EIR).

c. City of Los Angeles Protected Trees

One California walnut tree, which is subject to the protected tree ordinance, occurs on the western edge of the Biological Survey Area within a mixed chaparral habitat. This tree is not within the impact area for the proposed residence or the extended fuel modification boundary.

(2) Wildlife Resources

Birds observed during biological surveys include California towhee, spotted towhee, California quail, northern mockingbird, house finch, lesser goldfinch, wren, Allen's hummingbird, red-tailed hawk, mourning dove, white-throated swift, Nuttall's woodpecker, California scrub-jay, bushtit, Bewick's wren, house wren, blue-gray gnatcatcher, and phainopepla.

Reptiles observed include the Great Basin fence lizard. Other common species expected to occur include side-blotched lizard (*Uta stansburiana*).

Mammals observed on site include domesticated dogs and the Mexican free-tailed bat. The Mexican free-tailed bat was detected during both surveys using bat ultrasonic equipment, as well as during one survey by visual detection flying high over the site. Other small mammal species are expected to occur, including Botta's pocket gopher (*Thomomys bottae*) and deer mouse (*Peromyscus maniculatus*). Also expected to occur occasionally are mule deer (*Odocoileus hemionus*).

Appendix B of the Biological Technical Report (included as Appendix E-2 of this Draft EIR) provides a complete list of wildlife species observed and expected to occur within the Biological Survey Area.

a. Special-Status Wildlife Habitat Assessments

The special-status wildlife habitat assessment determined that the Development Area supports habitat of low to moderate suitability two special-status reptile species: (1) coast horned lizard, and (2) coastal western whiptail.

The coast horned lizard occurs in coastal sage scrub and chaparral with open areas and friable soils. The coastal western whiptail occurs within sunny, open areas in a variety of habitats included coastal sage scrub and chaparral. The ground of the existing fuel modification zone and chaparral habitat within the Biological Survey Area is densely covered with non-native grasses. This ground cover will generally not support the coast horned lizard or the coastal western whiptail, but there is a low to moderate chance that these species may occur.

Two additional species, the hoary bat and the Southern California rufous-crowned sparrow, were indicated in the CDFW letter in response to the NOP. Focused bat surveys were conducted from approximately 7:30pm to 11:00pm, when bats are most active. No evidence of bats roosting on site (e.g., guano or urine staining) was detected during the surveys. All areas of suitable habitat were thoroughly searched including trees, cavities, and structures (buildings and carport). Additionally, although the site contains suitable habitat for the Southern California rufous-crowned sparrow, this watch list species was not observed during avian surveys. As such, neither species is expected to occur within or surrounding the Biological Survey Area. No other special-status animals have the potential to occur within the Biological Survey Area.

b. Wildlife Movement

During general wildlife surveys, no evidence of wildlife movement was observed within the Biological Survey Area. The proposed residence is located within the open space of Runyon Canyon Park, which is a popular hiking location and off-leash dog park widely used by hikers and dog owners, thus reducing the amount of large mammal wildlife activity.

Pursuant to Los Angeles City motion #14-0518, a wildlife connectivity assessment was performed by Cooper Ecological Monitoring, Inc. Their results indicate that mule deer occasionally forage on the ornamental vegetation on site.

(3) Special-Status Habitats

According to the CNDDDB (2008), eight special-status habitats occur within the Burbank quadrangle and the five surrounding quadrangles (Triunfo Pass, Newbury Park, Thousand Oaks, Calabasas, and Malibu Beach) including southern California arroyo chub/Santa Ana sucker stream, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern sycamore alder riparian woodland, California walnut woodland, and walnut forest. None of the above-mentioned special-status habitats occur within the Biological Survey Area. Additionally, none of the habitats occurring within the Biological Survey Area are considered special-status.²

² *Habitats in California are generally considered special-status when they have either a state ranking of S3 or less or global ranking of S3 or less, meaning that there are 50,000 acres or less of such habitats. The native habitats present on site have rankings of either G4S4 or G5S5, indicating that they are either apparently secure or demonstrably secure in California. The natural communities list and state and global rankings can be found at http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp.*

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Project would have a significant impact in regards to biological resources if it would:

- Threshold a)** *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service; or*
- Threshold b)** *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; or*
- Threshold c)** *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or*
- Threshold d)** *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or*
- Threshold e)** *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or*
- Threshold f)** *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The L.A. CEQA Thresholds Guide (Thresholds Guide) identifies the following criteria to evaluate biological resource impacts:

- *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; or*
- *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.*

In assessing impacts related to biological resources in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

b. Methodology

A Biological Technical Report was prepared for the Project Site by Glenn Lukos Associates (GLA, report included in Appendix E-2 of this Draft EIR). The scope of the biological report includes: 1) a characterization of biological resources associated with the Survey Area, with focus on the impact areas; and 2) an evaluation of the Survey Area for presence or potential presence of state or federally listed endangered species or other special-status species. The report also includes a discussion of existing conditions for the Survey Area, all methods employed regarding habitat assessments and general biological surveys, and the documentation of botanical and wildlife resources identified.

Methods of study include a review of relevant literature and databases, habitat assessments, general field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, the report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the CDFW, and the California Native Plant Society (CNPS). Glenn Lukos Associates, Inc. (GLA) conducted site-specific habitat assessments, as well as general and focused biological surveys within the Biological Survey Area on June 11, 2018; June 12, 2018; and June 26, 2018. An in depth summary of the surveys conducted on the Project Site is included as part of the

Biological Technical Report (see pages 5 through 17 of the report, which is contained in Appendix E-3 of this Draft EIR).

c. Project Design Features

The following Project Design Feature is applicable to the Project:

BIO-PDF-1 Although no impacts to protected trees are anticipated as a result of the Project, the walnut tree within 100 feet of the Project grading limits shall be flagged. Flagging shall be installed under the supervision by the Project Biologist prior to the start of grading and be maintained until completion of construction activity to ensure that the walnut tree is not impacted by any construction activities.

d. Analysis of Project Impacts

Threshold a): Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulation, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The following discussion examines the potential impacts to plant and wildlife resources that may occur as a result of implementation of the Project.

Project-related impacts can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or wildlife, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Other impacts, such as loss of foraging habitat, can occur although these areas or habitats are not directly removed by Project development; i.e., indirect impacts. Indirect impacts can also involve the effects of increases in ambient levels of noise or light, unnatural predators (i.e., domestic cats and other non-native animals), competition with exotic plants and animals, and increased human disturbance such as hiking, horseback riding, and dumping of green waste on site. Indirect impacts may be associated with the subsequent day-to-day activities associated with Project build-out, such as increased traffic use, permanent concrete barrier walls or chain link fences, exotic ornamental plantings that provide a local source of seed, etc., which may be both short-term and long-term in their duration. These impacts are commonly referred to as

“edge effects,” and may result in a slow replacement of native plants by exotics, and changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundances in habitats adjacent to project sites.

The potential for significant adverse effects, either directly or through habitat modifications, on any special-status plant, animal, or habitat that could occur as a result of Project development is discussed below.

(1) Direct Impacts to Vegetation Associations and Special-Status Habitats

a. Grading

The Project would include approximately 1.41 acres of grading, resulting in impacts to 7 vegetation/land use types (Table IV.C-2, below). None of the impacted vegetation types are considered special-status by either CDFW, the CNDDDB (i.e., vegetation alliances with State rankings of 1, 2 or 3), or the Los Angeles City CEQA Thresholds Guide. Therefore, impacts would be less than significant.

b. Fuel Modification

Pursuant to the requirements of the Los Angeles County Fire Department, fuel modification for the proposed residence total approximately 3.33 acres, resulting in impacts to 8 vegetation/land use types (Table IV.C-2, below). The fuel modification for the proposed residence would include the thinning of existing vegetation as well as the planting of new, fire resistant vegetation. None of the impacted vegetation types are considered special-status by either CDFW, the CNDDDB (i.e., vegetation alliances with State rankings of 1, 2 or 3), or the Los Angeles City CEQA Thresholds Guide. Therefore, impacts would be less than significant.

**Table IV.C-2
Summary of Direct Impacts to Vegetation/Land Use Types**

Impacted Vegetation/Land Use Type	Area (Acres)
PROPOSED GRADING	
Developed	0.01
Developed/Existing Residential	0.15
FMZ/Mixed Chaparral	0.44
Mixed Chaparral	0.06
Ornamental	0.33
FMZ	0.31
Turf	0.12
Proposed Development subtotal	1.41
PROPOSED FUEL MODIFICATION	
Cliff	0.41
FMZ	1.12
FMZ/Mixed Chaparral	1.01
Mixed Chaparral	0.56
Non-Native Grassland	0.08
Ruderal	0.12
Sugar bush	0.01
Toyon	0.02
Offsite subtotal	3.33
Total Impacted Vegetation/Land Use Acreage	4.74
<i>Source: Biological Technical Report, Glenn Lukos Associates, contained in Appendix E-2 of this Draft EIR.</i>	
<i>Numbers may not reconcile due to rounding.</i>	

(2) Special-Status Plants

No special-status plants were detected during focused surveys, and therefore no impacts to special-status plants would be associated with the Project.

a. City of Los Angeles Protected Trees

As discussed above, one California walnut tree, which is subject to the protected tree ordinance of the City of Los Angeles, occurs within the Biological Survey Area. However, this tree is completely avoided by the Project and associated fuel modification boundary. Nevertheless, the Project would include BIO-PDF-1, provided above, which would ensure that this tree is not impacted by any construction activities. Therefore, impacts with respect to protected trees would be less than significant.

(3) Special-Status Wildlife

No special-status wildlife species were detected during general wildlife surveys. Two special-status species, coastal western whiptail and coast horned lizard, have low

to moderate potential to occur within the fuel modification zone and mixed chaparral habitat within the impact area.

Coastal western whiptail is classified as a species of special concern by CDFW, but is not listed in the Los Angeles City CEQA Thresholds Guide or in regional plans, policies, or regulations. The species has low potential to occur within the Biological Survey Area and any impacts to this species as a result of the Project would be less than significant due to the limited area of impact, its current lack of rarity, and/or overall threat to the species.

Coast horned lizard is classified as a species of special concern by CDFW, and is classified as sensitive by the Los Angeles City CEQA Thresholds Guide, and has low to moderate potential to occur within the Biological Survey Area. If present, it would occur in coastal sage scrub and the mixed chaparral/fuel modification zones. The 0.02 acre of coastal sage scrub will not be impacted by the Project; however, 0.81 acre of mixed chaparral/fuel modification zone is within the proposed development impact area. If coast horned lizard did occur within this area, it would be in very low numbers, and impacts that could occur from the Project would be less than significant.

Therefore, if either of these two species were to occur, potential impacts from the Project would be less than significant.

Focused surveys for the hoary bat, recommended by CDFW, did not detect this species and a careful review of the site found no roosting bats. Thus, the Project would not impact special-status bats.

(4) Indirect Impacts

Indirect impacts to biological resources associated with construction of the Project are very limited and are associated with lighting and noise.

a. Lighting

No significant increase in lighting would be associated with the Project following construction, as it consists of a single-family residence and exterior lighting would be limited to lighting systems typical of single-family residence. All exterior lighting would be directed downward and would be positioned such that it does not illuminate adjacent native habitats.

Given the lack of special-status species associated with the native habitats adjacent to the Development Area and the minimal amount of new lighting associated with the Project, lighting impacts to biological resources resulting from the Project would be less than significant.

b. Noise

There would be a temporary increase in noise levels during construction; however, noise would be minimized to the greatest extent practicable. All construction vehicles and equipment, fixed or mobile, would be equipped with properly operating and maintained mufflers to minimize noise. Further, construction would be limited to allowable daytime construction hours to limit noise impacts.

No significant increase in noise would be associated with use of the Project following construction, as it consists of a single-family residence and exterior noise would be limited to occasional vehicle traffic and minor exterior noise (i.e. lawn-mowing) associated with a typical single-family residence.

Given the lack of special-status species associated with the Development Area and adjacent areas of the Biological Survey Area, as well as the limited nature of construction noise and lack of long-term noise increase, temporary and permanent noise impacts to biological resources resulting from the Project would be less than significant.

c. Human Use

Construction of the Project would not result in increased human use of the native habitats surrounding the Development Area. Therefore, no impacts from human use would be associated with the Project.

Therefore, impacts with respect to candidate, sensitive, or special status species would be less than significant.

Threshold b): Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (included as Appendix A), a significant impact would occur if riparian habitat or any other sensitive natural community identified locally, regionally, or by the state and federal regulatory agencies cited would be adversely modified by a project. There are no riparian areas or other sensitive natural

communities located on or adjacent to the Project Site.³ **Therefore, no impact would occur.**

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

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (included as Appendix A), a significant impact would occur if federally protected wetlands would be modified or removed by a project. Review of the National Wetlands Inventory and biological surveys of the Project Site identified no wetlands or water features on the Project Site.⁴ **Therefore, no impact would occur.**

Threshold d): Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

(1) Wildlife Movement

As mentioned previously, a wildlife connectivity assessment was performed by Cooper Ecological Monitoring, Inc. Their results state that the site is occasionally used by wildlife including mule deer. There is nothing in the proposed development plan that would eliminate occasional foraging by mule deer on the ornamental vegetation on-site, and therefore, the Project would not result in any permanent, negative impact to wildlife movement. Further, due to its location surrounded by open space, the proposed development will not appreciably affect the movement of this and other local species using the site. **As such, impacts related to wildlife movement would be less than significant.**

(2) Nesting Birds and Migratory Bird Treaty Act Considerations

The Biological Survey Area currently contains groundcover, trees, and shrubs that have the potential to support nesting birds. However, avian surveys were conducted within raptor nesting season and nesting raptors were not observed.

³ *NavigateLA, Water, Lakes, and Streams layer: <http://navigate.la.city.org/navigate/>, February 2017.*

⁴ *U.S. Fish & Wildlife Service, National Wetlands Inventory: <http://www.fws.gov/wetlands/data/mapper.HTML>*

Impacts to migratory nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA).⁵ Nesting activity typically occurs from February 15 to August 31 (January 15 to August 31 for raptors). Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (16 U.S.C. 703 et seq.). In addition, nests and eggs are protected under Fish and Game Code Section 3503, and the removal of vegetation during the breeding season is considered a significant impact due to potential effects on active nests. Compliance with existing regulatory requirements would reduce this potentially significant impact to a less than significant level by avoiding vegetation removal during nesting season. If construction activities must occur during the nesting season and nests are present, the removal of these trees will comply with the MBTA, which regulates vegetation removal during the nesting season to ensure that significant impacts to migratory birds would not occur. To the extent that vegetation removal activities must occur during the nesting season, a biological monitor will be present during the removal activities to ensure that no active nests would be impacted. If any active nests are detected, the area would be flagged with a buffer, and the area would be avoided until the nesting cycle has been completed. Mitigation Measure BIO-MM-1 would ensure that a qualified biologist monitor conducts pre-construction surveys for nesting birds prior to the initiation of clearance/construction work if work occurs during nesting season. **With implementation of Mitigation Measure BIO-MM-1, impacts to nesting and migratory birds would be less than significant.**

a. Mitigation Measure

BIO-MM-1 The following requirements under the MBTA and California Fish and Game Code Sections 3503.5, 3503, and 3513 are to be implemented to ensure that nesting birds are not harmed during Project construction. It should be noted that raptor species are not expected to nest within the Development Area due to a lack of suitable habitat:

1. If feasible, the removal of vegetation should occur outside of the nesting season, generally recognized as March 15 to August 31 (potentially earlier for raptors). If vegetation removal must occur during the nesting season, then a qualified biologist shall conduct a nesting bird survey prior to any vegetation removal. If active nests are identified, the biologist shall flag vegetation containing active nests.

⁵ *The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.*

The biologist shall establish appropriate buffers around active nests to be avoided until the nests are no longer active and the young have fledged. Buffers will be based on the species identified, but generally will consist of 50 feet for non-raptors and 300 feet for raptors.

2. If for some reason it is not possible to remove all vegetation during the non-nesting season, then vegetation to be removed during the nesting season must be surveyed by a qualified biologist no more than three days prior to removal. If no nesting birds are found, the vegetation can be removed. If nesting birds are detected, then removal must be postponed until the fledglings have vacated the nest or the biologist has determined that the nest has failed. Furthermore, the biologist shall establish an appropriate buffer zone where construction activity may not occur until the fledglings have vacated the nest or the biologist has determined that the nest has failed.

Threshold e): Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree prevention policy or ordinance?

(1) City of Los Angeles Protected Trees

A significant adverse impact would occur if a project were inconsistent with local regulations pertaining to biological resources. Local ordinances protecting biological resources are limited to the City of Los Angeles Protected Tree Ordinance, as modified by Ordinance 177404. The amended Protected Tree Ordinance provides guidelines for the preservation of all Oak trees indigenous to California (excluding the Scrub Oak or *Quercus dumosa*) as well as the following tree species: Southern California Black Walnut (*Juglans californica var. californica*); Western Sycamore (*Platanus racemosa*); and California Bay (*Umbellularia californica*).⁶

According to the Protected Tree Report prepared for the Project by The Tree Resource (2016), included in Appendix E-1 of this Draft EIR, there are no native protected tree species on-site. However, there are a total of ninety-six (96) Non-Protected Significant trees on the Site and seventeen (17) Non-Protected Significant trees are recommended for removal. These trees are in close proximity of the proposed construction and will not tolerate the encroachment. Thus, the Project would remove the existing non-native trees on the Project Site and would provide replacement trees.

⁶ *City of Los Angeles, Ordinance 177404, approved March 13, 2006 and effective April 23, 2006.*

In addition, Glenn Lukos Associates completed a peer review of Tree Resource's tree survey as part of the biological survey of the Project Site and agreed with the prior tree identification findings, except that, as discussed above, it identified one additional tree, a California walnut tree, which is subject to the protected tree ordinance of the City of Los Angeles, that occurs within the Biological Survey Area. However, this tree is completely avoided by the Project and associated fuel modification boundary. With implementation of Project Design Feature BIO-PDF-1, provided above, impacts with respect to protected trees would be less than significant.

(2) Mulholland Specific Plan Streams

Pursuant to the Mulholland Specific Plan (MSP), grading of more than 100 cubic yards is not permitted within 100 feet of streams identified in the MSP. The Project has been designed such that grading is a minimum of 100 feet from the nearest drainages (see Exhibit 4 in Appendix E-2 - the Biological Technical Report). **Therefore, there is no significant impact to streams in accordance with the MSP.**

Threshold f): Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (included as Appendix A), a significant impact would occur if a project would be inconsistent with policies in any draft or adopted conservation plan. The Project Site is not located in or adjacent to an existing or proposed Significant Ecological Area.⁷ Additionally, there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that applies to the Project Site.⁸ The Project would not conflict with any habitat conservation plans. **Therefore, no impact would occur.**

⁷ Los Angeles County Department of Regional Planning, *Significant Ecological Areas, Significant Ecological Areas and Coastal Resource Areas Policy Map*, http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf, accessed March 9, 2017.

⁸ California Department of Fish and Wildlife, *California Regional Conservation Plans Map*, website: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>, accessed March 22, 2018.

4. Cumulative Impacts

A cumulative impact to biological resources may occur if a project has the potential to collectively degrade the quality of the environment, substantially reduce the habitat of wildlife species, or cause a population to drop below self-sustaining levels, thereby threatening to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species. Based on the list of related projects provided in Table III-2 in Section III, Environmental Setting, none of the related projects are in close enough proximity to combine with the Project to result in impacts to biological resources. In addition, implementation of Mitigation Measure BIO-MM-1 would ensure that the Project would not result in any significant impacts related to biological resources. **Therefore, there would be no adverse cumulative impacts to biological resources.**

5. Mitigation Measures

The Project would implement Mitigation Measure BIO-MM-1, provided above under Threshold d).

6. Level of Significance After Mitigation

Significant impacts to biological resources would be avoided with implementation of BIO-MM-1.

IV. Environmental Impact Analysis

D. Cultural Resources

1. Introduction

This section analyzes potential impacts to historical and archaeological resources. The information and analysis in this section is based primarily on the following items (refer to Appendix F):

- F-1 Headley/Handley House, 3003 Runyon Canyon, Los Angeles, California, Historical Resource Report, GPA Consulting, October 2018.
- F-2 Record Search Results for the 3003 Runyon Canyon Project, South Central Coastal Information Center, July 2018.

2. Environmental Setting

a. Regulatory Framework

(1) National Register of Historic Places

The National Register is "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."¹

a. Criteria

To be eligible for listing in the National Register, a property must be at least 50 years of age (unless the property is of "exceptional importance") and possess significance in American history and culture, architecture, or archaeology. A property of potential significance must meet one or more of the following four established criteria:²

¹ Title 36 Code of Federal Regulations Part 60.2.

² Title 36 Code of Federal Regulations Part 60.4.

- A. Associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Associated with the lives of persons significant in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Yield, or may be likely to yield, information important in prehistory or history.

b. Physical Integrity

National Register Bulletin #15 states that in addition to meeting at least one of the four criteria, a resource should be evaluated to assess its integrity. Properties may be eligible for inclusion on the National Register as individual resources and/or contributors to an historic district. For individual resources to qualify for inclusion, they must represent an important aspect of an area's history and possess integrity. An historic district must retain integrity as a whole, "the majority of the components that make up the district's historic character must possess integrity even if they are individually undistinguished."

The seven aspects of integrity are location, design, feeling, association, setting, workmanship, and materials. To "retain historic integrity a property will always possess several, and usually most, of the aspects." For a resource to be evaluated as significant for its design, a "property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique."

c. Historic Context

A resource must also be significant within an historic context. *National Register Bulletin #15* states that an historic context explains "those patterns, themes, or trends in history by which a specific...property or site is understood and its meaning...is made clear." To be determined eligible for listing on the National Register, a property must possess significance within an historic context and possess integrity.

(2) California Register of Historical Resources

Generally, a lead agency must consider a property a historical resource under CEQA if it is eligible for listing in the California Register of Historical Resources (California Register). The California Register is modeled after the National Register of

Historic Places (National Register). Furthermore, a property is presumed to be historically significant if it is listed in a local register of historic resources or has been identified as historically significant in a historic resources survey (provided certain criteria and requirements are satisfied) unless a preponderance of evidence demonstrates that the property is not historically or culturally significant.³

In 1992, Governor Wilson signed Assembly Bill 2881 into law establishing the California Register. The California Register is an authoritative guide used by state and local agencies, private groups, and citizens to identify historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse impacts.⁴

The California Register consists of properties that are listed automatically as well as those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed in the National Register and those formally Determined Eligible for the National Register;
- State Historical Landmarks from No. 0770 onward; and
- Those California Points of Historical Interest that have been evaluated by the State Office of Historic Preservation (SOHP) and have been recommended to the State Historical Resources Commission for inclusion on the California Register.⁵

For properties not automatically listed, the criteria for eligibility of listing in the California Register are based upon National Register criteria, but are identified as 1-4 instead of A-D. To be eligible for listing in the California Register, a property generally must be at least 50 years of age and must possess significance at the local, state, or national level, under one or more of the following four criteria:

1. 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; or

³ *Public Resources Code Section 5024.1 and 14; California Code of Regulations Sections 4850 & 15064.5(a).*

⁴ *Public Resources Code Section 5024.1 (a).*

⁵ *Public Resources Code Section 5024.1 (d).*

2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important in the prehistory or history of the local area, California, or the nation.

The California Register may also include properties identified during historical resource surveys. However, the survey must meet all of the following criteria:⁶

1. The survey has been or will be included in the State Historic Resources Inventory;
2. The survey and the survey documentation were prepared in accordance with office [SOHP] procedures and requirements;
3. The resource is evaluated and determined by the office [SOHP] to have a significance rating of Category 1 to 5 on a DPR Form 523; and
4. If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource.

(3) California Environmental Quality Act

The State CEQA Guidelines (Title 14 California Code of Regulations Sections 15000 et seq.) Section 15064.5(b) set the standard for determining the significance of impacts to historical resources, and states:

A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

State CEQA Guidelines Section 15064.5(b)(1) further clarifies “substantial adverse change” as follows:

⁶ *Public Resources Code Section 5024.1.*

Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

State CEQA Guidelines Section 15064.5(b)(2) in turn explains that a historical resource is “materially impaired” when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant;

(C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

(4) City of Los Angeles Cultural Heritage Ordinance

The Los Angeles City Council adopted the Cultural Heritage Ordinance in 1962 and amended it in 2007 (Sections 22.171 et seq. of the Administrative Code). The Ordinance created a Cultural Heritage Commission and criteria for designating Historic-Cultural Monuments (HCM). The Commission is comprised of five citizens, appointed by the Mayor, who have exhibited knowledge of Los Angeles history, culture and architecture. The three criteria for Monument designation are stated below:

- Is identified with important events of national, state, or local history or exemplifies significant contributions to the broad cultural, economic or social history of the nation, state, city or community;
- Is associated with the lives of historic personages important to national, state, city, or local history; or

- Embodies the distinctive characteristics of a style, type, period, or method of construction; or represents a notable work of a master designer, builder, or architect whose individual genius influenced his or her age.⁷

Unlike the National and California Registers, the Ordinance makes no mention of concepts such as physical integrity or period of significance. Moreover, properties do not have to reach a minimum age requirement, such as 50 years, to be designated as Monuments.

(5) Secretary of the Interior's Standards

Projects that may affect historical resources are considered to be mitigated to a level of less than significant if they are consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Standards).⁸ Projects with no other potential impacts qualify for a Class 31 exemption under CEQA if they meet the *Secretary's Standards*.⁹ The *Secretary's Standards* were issued by the National Park Service. The *Secretary's Standards* are accompanied by Guidelines for four types of treatments for historical resources: Preservation, Rehabilitation, Restoration, and Reconstruction. The most common treatment is rehabilitation and is the treatment that applies to the Proposed Project. The definition of rehabilitation assumes that at least some repair or alteration of the historic building will be needed in order to provide for an efficient contemporary use; however, these repairs and alterations must not damage or destroy materials, features, or finishes that are important in defining the building's historic character.

The *Secretary's Standards* for Rehabilitation are as follows:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

⁷ Los Angeles Administrative Code Section 22.171.7.

⁸ 14 CCR Section 15126.4(b).

⁹ 14 CCR Section 155331.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the project site. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the project site and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

It is important to note that the *Secretary's Standards* are not intended to be prescriptive, but instead provide general guidance. They are intended to be flexible and adaptable to specific project conditions to balance continuity and change, while retaining materials and features to the maximum extent feasible. Their interpretation requires exercising professional judgment and balancing the various opportunities and constraints of any given project. Not every Standard necessarily applies to every aspect of a project, nor is it necessary to comply with every Standard to achieve compliance.

b. Existing Conditions

(1) Description of the Project Site

The Project Site is surrounded by Runyon Canyon Park, a northern face of the Santa Monica Mountains located north of the Hollywood area of Los Angeles. Runyon Canyon Park is a natural park with hiking trails winding through hillside elevations. The Project Site is a privately held, irregularly shaped approximately 4.5-acre lot encompassing a hill. The southeastern face of the hill projects over the intersection of Runyon Canyon Road and two hiking paths, Runyon Canyon Road Hiking Path and Inspiration Point Hiking Trail. This southeastern projection is known as Inspiration Point. Vehicular access to the Project Site is obtained only through a private driveway from Runyon Canyon Road, to the northeast of the Project Site. Surrounding hiking trails and Runyon Canyon Park are open to the public.

The parcel is characterized by relatively steep and irregular hillside topography. Various native and non-native shrubs and trees grow on the parcel. A narrow asphalt driveway leads upward along the northwesterly slope of the Project Site hill from a gated entry to the property along Runyon Canyon Road. The driveway continues upslope toward a graded pad area at the highest point of the hill. All built features are constructed at varying elevations in response to the uneven grading of the hillside. A swimming pool is located roughly at the north of the parcel. The Headley/Handley House is located in the center-east of the parcel, at an elevation approximately 18 feet lower than the graded pad at the top of the parcel. The house is nestled into the hillside and sited so that it is not visible from most of the hiking trails. A carport is located to the west of the house. A flat, graded lawn covers the southern portion of the hill, extending to the edge of Inspiration Point. A staircase of wooden logs leads from the southeastern edge of the lawn to the intersection of Runyon Canyon Road and two hiking paths, Runyon Canyon Road Hiking Path and Inspiration Point Hiking Trail.

The Headley/Handley House is a two-story building set into the hillside and constructed of concrete with fieldstone and horizontal wood lap cladding and a steeply pitched pyramidal hipped shingle roof. The house has an irregular plan of rectangular masses radiating outwards from a central fireplace. There are multiple entrances of fully glazed paired and single casement and sliding doors. Fenestration is irregular, comprising fixed and sliding aluminum and vinyl frame windows. The roof, of shake shingles over wood framing, nearly reaches to the ground on the western elevation of the building. Second story projections feature clipped gables over hipped roofs. The style is best described as organic.

The Headley/Handley House was initially constructed in 1945 to designs by architect Lloyd Wright. The house was originally a storage, garage, and stable structure.

It was first altered in 1949, when it was converted into habitable space and a bay window was added by owner George W. Headley. No architect was listed on the permit for the 1949 alterations. Owner Alan Handley added the swimming pool in 1959. In 1966, Handley hired original architect Lloyd Wright to design several additions to the house. The alterations included an addition extending the main living room and a new bedroom wing with fieldstone siding. A terrace was constructed south of the house, connected to the house by a stone stairway. Wright also designed the carport, a trellis-like structure, and a retaining wall in 1966. Alterations since 1966 include changes to the fenestration and the replacement of original wood shake roof with a fireproof material.¹⁰

(2) History of the Project Site

The Project Site is located in the middle of Runyon Canyon Park, formerly a large estate comprising 160 acres of the Hollywood Hills. The estate passed through numerous owners before A&P supermarket heir George Huntington Hartford II purchased the property in 1942. Hartford lived in a mansion at the base of the canyon. In 1945, he deeded a ridgeline parcel to his friend and adviser George W. Headley, the first owner of the Headley/Handley House.

Hartford aspired to develop his estate into a hillside resort.¹¹ In 1947, Hartford commissioned renowned architect Frank Lloyd Wright and his son Lloyd Wright, who had offices in Hollywood just south of Runyon Canyon, to develop the estate into the Huntington Hartford Play Resort and Cottage Hotel. Over the next year, multiple projects were planned for the estate lands, including a group of cottages, a mansion for Hartford, a sports club and play resort center, and stables. A second scheme for a hotel property of cottages was developed in January 1948. None of the five projects was realized. After abandoning plans for a hotel, in 1954 Hartford commissioned Lloyd Wright to design and build a pool and pavilion on the estate overlooking Hollywood (no longer extant). He attempted to give all of his Runyon Canyon property to the City of Los Angeles for use as a park in 1964, but the City rejected his offer and he sold the property.¹² The City purchased the property later, in 1984, from subsequent owners and the estate became Runyon Canyon Park.

¹⁰ *City of Los Angeles Department of Building and Safety, various dates.*

¹¹ *Tina Barseghian, "Hillside Home Riles Residents," Los Angeles Independent, March 22, 1995.*

¹² *"Wright Studies: Huntington Hartford Cottage Group Center, Scheme #2, Hollywood, CA (1948 Project)," The Wright Library (2015, Accessed September 26, 2016), <<http://www.steinerag.com/flw/Artifact%20Pages/PhRtHartford.htm>>*

Hartford's advisor and friend George W. Headley had less ambitious plans for his parcel in the center of the estate. He commissioned Lloyd Wright to design a house in 1945. A multiuse storage, garage, and stable structure was constructed in 1945, but Headley ran out of funds before construction could begin on the main residence. In 1949, Headley converted the existing structure into living quarters.

Television and theater producer and director Alan Handley purchased the property and Headley's modest residence in 1951.¹³ Handley made several changes to the existing residence and grounds, adding a pool in 1959 and hiring Lloyd Wright to design additional living space and a carport in 1966. The Headley/Handley House was the only private property within the Runyon Canyon Park after the City of Los Angeles purchased Hartford's Runyon Canyon estate (133 acres) in 1984.¹⁴ Handley lived on the property with his sons until his death in 1990.¹⁵ The City of Los Angeles declined to purchase the property to incorporate it into the surrounding park, and the parcel remains privately owned today.

Of the many commissions the Wrights designed for Runyon Canyon, the Headley/Handley House was one of only two actually constructed and the only one still extant. The Pool Pavilion designed by Lloyd Wright for Hartford was constructed in 1954 and burned in 1972.

(3) Significance of the Headley/Handley House

The Headley/Handley House is designated a City of Los Angeles Historic-Cultural Monument (HCM) for its architectural significance as an excellent example of organic architecture. Designed by Lloyd Wright, the Headley/Handley House embodies the distinctive characteristics of organic architecture with walls rising from the site's natural buff-colored stone and a "roofline echoing the shape of the surrounding hills."¹⁶ Lloyd Wright designed two phases of the Headley/Handley House: the original storage, garage, and stable structure for George Headley in 1945 and additions to convert the building into a three-bedroom house for Alan Handley in 1966.

¹³ John D. Markman, "Panel Unexpectedly Rejects Hilltop Home," *Los Angeles Times*, April 21, 1995.

¹⁴ Dean Murphy, "Canyon Land Too Steep for City," *Los Angeles Times*, July 26, 1990.

¹⁵ "Alan Handley, Television Director, 77," *New York Times*, January 11, 1990.

¹⁶ "Letter," *Historic-Cultural Monument File: Headley/Handley House (City of Los Angeles, Department of City Planning, Office of Historic Resources)*.

Architect Frank Lloyd Wright, Jr., known as Lloyd Wright, was the son of preeminent master architect Frank Lloyd Wright. Lloyd Wright was born in 1890 and grew up in Illinois and Wisconsin. He began his career with a focus on landscape design and architecture. He came to California in 1911 with the landscape design firm Olmsted and Olmsted to work on the 1915 Pan-Pacific Exposition. Lloyd Wright remained in Southern California for the rest of his life. His architectural designs are distinguished by bold, soaring forms; unusual colors and materials; careful siting; and, demonstrating the influence of his early professional work, integration between the building and the landscape. His well-known works include the Wayfarer's Chapel (Rancho Palos Verdes, 1951) and the first two shells of the Hollywood Bowl (1927, 1928). Lloyd Wright died in 1978.¹⁷

At the time of its designation as an HCM, the Headley/Handley House as it had evolved over time was determined to be an excellent example of the organic style. The organic style of architecture is a Modern style that evolved in the second half of the twentieth century. The style is a rejection of the orthogonal composition and rigidity of industrial materials common in Mid-Century Modern designs. The organic style is "based on the coalescence of the built environment with nature, allowing the design to respond to the natural environment rather than impose on it."¹⁸ This response takes the form of natural shapes and non-rectilinear geometries, allowing the natural environment and manmade materials to create one unit rather than contrast.¹⁹

The Headley/Handley House embodies the distinctive characteristics of the organic style through:

- Fieldstone cladding and paving with coloring that blends into surrounding canyon landscape.
- Siting on multiple levels so that the building is "nestled" into the hillside rather than imposed on top of the hill.
- Minimal visibility of the building.

¹⁷ "Lloyd Wright," *Los Angeles Conservancy* (Accessed September 26, 2016), <<https://www.laconservancy.org/architects/lloyd-wright.>>

¹⁸ *Virginia Savage McAlester, A Field Guide to American Houses* (New York: Alfred A. Knopf, 2013), 656.

¹⁹ *McAlester*, 655.

- An asymmetrical roof form with steep slope that responds to the elevation changes of the natural landscape.
- Natural finishes, such as wood lap siding and a shingle roof.

A period of significance was not established for the Headley/Handley House as part of its designation.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Project would have a significant impact related to cultural resources if it would:

Threshold (a): Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5; or

Threshold (b): Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5; or

Threshold (c): Disturb any human remains, including those interred outside of formal cemeteries (see Public Resources Code, Ch. 1.75, §5097.98, and Health and Safety Code §7050.5(b)).

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

In the context of these above questions from Appendix G to the CEQA Guidelines, the *L.A. CEQA Thresholds Guide (Thresholds Guide)* identifies the following criteria to evaluate cultural resources impacts:

Historical Resources

- *If the project would result in a substantial adverse change in the significance of an historical resource, including demolition of a significant resource, relocation that does not maintain the integrity and significance of a significant resource, conversion, rehabilitation, or alteration of a significant resource which does not conform to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, and/or construction that reduces the integrity or significance of important resources on the site or in the vicinity.*

Archaeological Resources

- *If the project would disturb, damage, or degrade an archaeological resource or its setting that is found to be important under the criteria of CEQA because it is associated with an event or person of recognized importance in California or American prehistory or of recognized scientific importance in prehistory;*
- *If the project would disturb, damage, or degrade an archaeological resource or its setting that is found to be important under the criteria of CEQA because it can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;*
- *If the project would disturb, damage, or degrade an archaeological resource or its setting that is found to be important under the criteria of CEQA because it has a special or particular quality, such as the oldest, best, largest, or last surviving example of its kind; and*
- *If the project would disturb, damage, or degrade an archaeological resource or its setting that is found to be important under the criteria of CEQA because it is at least 100-years-old²⁰ and possesses substantial stratigraphic integrity.*

In assessing impacts related to cultural resources in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

b. Methodology

In preparing the historic report (included in Appendix F of this Draft EIR), the following tasks were performed:

1. Conducted a field inspection of the Project Site and surrounding area to determine the scope of the study. The study area was identified as the parcel containing the existing historic residence, ancillary buildings and structures, as well as the site of the Proposed Project. During the field inspection, GPA photographed the Project Site from all angles, including views to and from the Headley/Handley House.

²⁰ *Although the CEQA criteria state that "important archaeological resources" are those which are at least 100- years-old, the California Register provides that any site found eligible for nomination to the National Register will automatically be included within the California Register and subject to all protections thereof. The National Register requires that a site or structure be at least 50-years-old.*

2. Obtained and reviewed the building permits and records on file at the City of Los Angeles Department of City Planning.
3. Conducted archival research on the history of the building. Sources consulted included historic aerial photographs, books, and newspapers.
4. Reviewed and analyzed the conceptual renderings and related documents for compliance with the *Secretary's Standards*. The *Secretary's Standards* are accompanied by Guidelines for four types of treatments for historic buildings: preservation, rehabilitation, restoration, and reconstruction. Rehabilitation was selected as the appropriate treatment for the Project.
5. Communicated with the Proposed Project design team on several occasions to share information and discuss the application of the *Secretary's Standards* to the Proposed Project. GPA worked with the Project designer to ensure that the Proposed Project was sited and designed in such a manner as not to impact the setting of the Headley/Handley House. GPA and the Project designer also collaborated to ensure that the design and materials utilized on the Proposed Project would be distinguishable but compatible with the historic character of the Headley-Handley house and its immediate surroundings.

The historic report was prepared by architectural historians who fulfill the qualifications for historic preservation professionals, as outlined in Title 36 of the Code of Federal Regulations, Part 61.

A records search was also conducted with the South Central Coastal Information Center (SCCIC) at California State University, Fullerton.

c. Project Design Features

The following Project Design Features are applicable to the Project:

- CUL-PDF-1** The siting and design of the proposed new residence will be in a manner that preserves the integrity of the setting of the Headley/Handley House.
- CUL-PDF-2** Prior to the start of Project construction, the prime contractor and any subcontractor(s) will be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project Site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of the find will stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the

significance of the discovery and develop recommendations for treatment, in conformance with California Public Resources Code Section 21083.2. However, construction activities could continue in other areas of the Project Site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law.

d. Analysis of Project Impacts

Threshold a) Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

(1) Analysis of Project Impacts

The Project does not propose any physical modifications or demolition to the existing historic residence. The Project is best understood as three components:

1. Construction of New Primary Residence. The Project includes construction of a new approximately 8,099 square foot residence (not including the basement), on the western side of the hill comprising the parcel. As part of the construction of the new primary residence, the portion of the Project Site that would accommodate the proposed residence would be graded, and approximately 14,008 cubic yards of cut and fill would be balanced on-site. The style and siting of the new primary residence were designed in consultation with Galvin Preservation Associates to be sympathetic to the historic residence. The new primary residence was designed to be subterranean in that it will be cut or “tucked” into the hillside and will be covered with a grass roof. This subterranean siting will have an unobtrusive massing and profile, ensuring that the adjacent knoll visible from the historic residence will not be altered and there will be no changes to the immediate setting of the historic residence. The subterranean design minimizes impacts to the setting of the historic residence and meets the Secretary of the Interior’s Standards. With construction of a new primary residence, the owner of the Project Site is applying to have the existing historic residence reclassified as Accessory Living Quarters. The new primary residence would become the primary building on the Project Site.
2. Demolition of Ancillary Features. One ancillary feature of the property, a carport added in 1966, would be removed as part of the Project. The carport is not a character-defining feature of the property because it does not contribute to the

historic residence's significance, nor is it an excellent example of organic architecture (the reason the historic residence is significant).²¹

3. Construction of Retaining Walls. Three retaining walls will be constructed along the hillside at the mid-point of the northwest portion of the parcel to accommodate the cut and fill that would be balanced on-site. The existing historic residence is located on the opposing or eastern-facing side of the hill. The retaining walls will not be visible from the historic residence and will not impede views of the historic residence from the public right-of-way. The height of the retaining walls will be lower than the current driveway along the northwest portion of the property and will not be visible from the historic residence.

As discussed above, the Headley/Handley House is designated a City of Los Angeles HCM, and is therefore considered to be a historical resource. The following is an assessment of how the Project conforms to the *Secretary's Standards* relative to the Headley/Handley House:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

The Headley/Handley House would continue to be used as a residence; although its classification would change from a primary residence to Accessory Living Quarters, its use as a residence would not change. The Headley/Handley House was originally designed as a storage, garage, and stable structure in 1945. The building was converted into living quarters in 1949. The change in classification from primary residence to Accessory Living Quarters would not change the historical resource's site or environment. The Proposed Project complies with Standard 1.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

The Proposed Project would not physically impact the Headley/Handley House. The Proposed Project would not remove or alter the existing historic materials, spaces, or features. The ancillary features that will be demolished were added in 1959 and 1966

²¹ *The Historical Resource Report (included as Appendix F-1) also contemplated the possible removal of the swimming pool. While the Project as currently proposed includes the retention of the existing swimming pool, the historic report determined that the swimming pool was also not a character-defining feature of the property because it did not contribute to the historic residence's significance.*

and do not reflect the organic architectural style from which the historic residence derives its significance. The Proposed Project complies with Standard 2.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

There are no changes proposed to the existing historic residence on the Project Site; therefore, the Headley/Handley House would continue to convey its historic significance and historical development. There would be no conjectural features added to the existing historic residence. The Proposed Project includes the addition of a new residence on the Project Site. However, the new residence would be sited on the opposite side of the bluff from the Headley/Handley House, nestled within a slope so as not to alter the hillside topography as viewed from the historic residence. The new primary residence will be minimally visible from the existing historic residence. The new residence is designed to echo the historic setting of curving slopes. Therefore, changes to the setting of the Headley/Handley House will not impact the integrity of setting or the ability of the historic residence to convey its significance as an organic design in a hilltop setting. The new residence is designed in a style that is clearly distinguishable from Lloyd Wright's design for the Headley/Handley House. The design of the new residence would not create a false sense of historical development on the Project Site. The Proposed Project complies with Standard 3.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

The Proposed Project does not include any physical changes to the existing historic residence. The carport is an ancillary feature that will be demolished as part of the Project. This feature was a later addition to the property of the historic residence and does not reflect the historic residence's significant as an example of organic architecture. The carport is designed as functional and utilitarian in form and therefore has not achieved significance in its own right. The carport does not exhibit unique features nor is it a primary feature of the property. Removal of the carport would not diminish the property's historic character or significance. Therefore, Standard 4 is not applicable to the Proposed Project.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

No exterior physical changes are proposed for the existing historic residence. All of the existing features, finishes, and examples of craftsmanship in the Headley/Handley House would be preserved. Further, the proposed materials on the new primary residence have been selected to be consistent with the historic stone materials and natural landscape features of the Headley/Handley House to complement the materials and craftsmanship of the existing historic residence. The Proposed Project complies with Standard 5.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

The Proposed Project does not include any physical changes to the existing historic residence. Therefore, Standard 6 is not applicable to the Proposed Project.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

The Proposed Project does not include any physical changes to the existing historic residence. Therefore, Standard 7 is not applicable to the Proposed Project.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

There are no known archaeological resources on the Project Site and the Project Site has been subject to substantial prior grading. However, should any artifacts be identified during the construction of the Proposed Project, the Project Site owner would notify a qualified archaeologist in accordance with existing regulatory requirements. Standard 8 is not applicable to the Proposed Project at this time.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the project site. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the project site and its environment.

The Proposed Project includes the construction of a new single-family residence (proposed new primary residence) on the western face of the Project Site. The location

of the new primary residence is on the opposite side of the bluff from the existing historic residence on the Project Site. This location was chosen to preserve the historic setting of the existing historic residence and to minimize potential impacts to users of Runyon Canyon Park.

The setting of the proposed new primary residence minimizes the impact of the larger scale of the proposed new residence on the historic setting of the existing historic residence. Although the scale of the proposed new residence is larger than the existing historic residence, the majority of the proposed new residence is sited physically within the bluff (buried) so that the only face of the proposed new residence that would be visible is the western elevation. The proposed new residence was designed below the bluff line so the new construction would not be visible from the existing historic residence. Additionally, only the western elevation of the proposed new residence would be visible from the public right-of-way.

The proposed new residence has been sympathetically designed with many elements of the organic style, the style of the existing historic residence, without attempting to replicate or displace original design elements. The proposed new residence has been designed with a landscaped roof reflective of the existing graded condition of the Project Site. Walkways and landscaping surrounding the Proposed Project are designed to blend into the natural landscape of the bluff, maintaining the tradition of the organic style at the Project Site and minimizing visibility of the proposed new residence. The proposed new residence has been designed in a modern design with curvilinear rooflines to blend with the natural topography, which is distinct from the steeply pitched roof of the historic residence. The proposed new residence has been designed with compatible colors and materials that are similar to the natural stone of the existing historic residence.

Additionally, a carport added to the property in 1966 will be removed. The carport is not one of the character-defining features of the property that conveys its architectural significance or the organic style. The carport was part of a second phase of construction overseen by Lloyd Wright. However, it is stylistically different from the organic style of the historic residence and does not contribute to the property's architectural significance. The carport appears to have been altered over time with the removal of original roofing materials. Only a small corner of its original trellis form appears to be extant. The removal of the carport will not impact the ability of the historic property to convey its significance and its evolution over time.

The Proposed Project is both distinguishable and compatible with the existing historic residence. The Proposed Project complies with Standard 9.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The Proposed Project is not physically connected to the existing historic residence, as it would be located on the opposite side of the parcel from the existing historic residence, and would have no impact on the integrity of setting for the existing historic residence. Therefore, the removal of the Proposed Project, including any associated grading or landform alteration, would have no impact on the historic setting of the Headley/Handley House.

Retaining walls will be added to the northwest face of the property. These retaining walls will not be visible from the historic residence and will have no impact on the setting of the Headley/Handley House. The height of the retaining walls will be lower than the current driveway along the northwest portion of the property and will not be visible from the historic residence. The Proposed Project complies with Standard 10.

(2) Conclusion

The Proposed Project does not propose to demolish, relocate, or physically alter the Headley/Handley House. Therefore, the Proposed Project would not have a direct impact on any historical resources.

However, since the Proposed Project proposes to add a new single-family residence (proposed new residence) on the same parcel as the Headley/Handley House, a parcel that historically has been sparsely developed and maintained with open views, the Proposed Project has the potential to impact the integrity of the historical resource's setting. To minimize impacts, the Proposed Project is designed in a manner that minimizes visual effects on the Project Site and is consistent with the *Secretary of the Interior's Standards for Rehabilitation*.

The Proposed Project has been designed in a manner sensitive and sympathetic to the existing historic residence. The proposed siting, location, materials, and colors of the new residence are compatible with the existing historic residence. The Proposed Project would not diminish the integrity of the existing setting of the Headley/Handley House. The Proposed Project, as designed, already minimizes any potential impacts on the historic property. Therefore, the Proposed Project would not cause a substantial adverse change in the significance of the historic property and would therefore not require any measures to minimize or mitigate any significant impacts on the historical resource.

As such, the Project's impact on historical resources would be less than

significant, and no mitigation measures are required.

Threshold (b): Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The Project Site is located in an urbanized area of the Hollywood Community Plan Area of the City of Los Angeles, and a portion of the Project Site has been disturbed by past development activities. However, the Project includes subgrade preparation and excavation for the proposed single-family structure. According to a records search completed by the South Central Coastal Information Center (SCCIC), included in Appendix F-2 of this Draft EIR, there are no known archaeological resources within the Project Site. Nevertheless, the archaeological sensitivity of the Project Site is unknown, and therefore, the potential exists for the inadvertent discovery of unknown archaeological resources. As such, consistent with Project Design Feature CUL-PDF-2, prior to Project construction, the prime contractor and any subcontractor(s) shall be advised of the legal and/or regulatory implications of knowingly destroying cultural resources or removing artifacts, human remains, bottles, and other cultural materials from the Project Site. In addition, in the event that buried archaeological resources are exposed during Project construction, work within 50 feet of the find shall stop until a professional archaeologist, meeting the standards of the Secretary of the Interior, can identify and evaluate the significance of the discovery and develop recommendations for treatment, in conformance with California Public Resources Code Section 21083.2. However, construction activities could continue in other areas of the Project Site. Recommendations could include preparation of a Treatment Plan, which could require recordation, collection and analysis of the discovery; preparation of a technical report; and curation of the collection and supporting documentation in an appropriate depository. Any Native American remains shall be treated in accordance with state law (see also Section IV.N, Tribal Cultural Resources, of this Draft EIR). **Through compliance with these requirements, potential Project impacts to unknown archaeological resources would be less than significant.**

Threshold (c): Would the Project disturb any human remains, including those interred outside of formal cemeteries (see Public Resources Code, Ch. 1.75, §5097.98, and Health and Safety Code §7050.5(b))?

The Project Site is located in an urbanized area of the Hollywood Community Plan Area of the City of Los Angeles, and a portion of the Project Site has been disturbed by past development activities. However, the Project includes subgrade preparation and excavation for the proposed single-family structure. Therefore, although unlikely, there is a possibility that human remains could be encountered during construction and excavation. If human remains are encountered during construction

and/or grading activities, California Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code Section 5097.98. In the event that human remains are discovered during excavation activities, the following procedure (CEQA Guidelines, Section 15064.5) 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)

If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC 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 as provided in Public Resources Code Section 5097.98. If the owner does not accept the descendant's recommendations, the owner or the descendent may request mediation by the NAHC.

Compliance with the regulatory standards described above would ensure appropriate treatment of any potential human remains discovered during construction grading and/or excavation activities. **Therefore, the Project's impacts on human remains would be less than significant, and no mitigation measures are required.**

4. Cumulative Impacts

It is possible that some of the related projects listed on Table III-2 in Section III, Environmental Setting, could result in significant impacts on historical resources, archaeological resources, or human remains. However, as discussed in detail above, the Project would not result in indirect or direct impacts to any significant historical resource, nor would the Project result in a significant impact to any archaeological resources or human remains. Thus, the Project would not have the potential to contribute toward any significant cumulative impacts related to cultural resources.

In the event that archeological or human remains are uncovered, each related project would be required to comply with regulatory requirements to ensure the proper treatment of such resources. **Therefore, as the Project's impacts would be less than**

significant, Project impacts to cultural resources would not be cumulatively considerable. As such, cumulative impacts would be less than significant.

5. Mitigation Measures

Project-level and cumulative impacts related to cultural resources would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

E. Energy

1. Introduction

This section analyzes the Project's potential impacts on energy resources, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section evaluates the demand for energy resources attributable to the Project during construction and operation and makes a determination regarding the Project's use and conservation of energy resources. This section also demonstrates whether the current and planned electrical, natural gas, and petroleum-based fuel supplies and distribution systems are adequate to meet the Project's forecasted energy consumption.

The information presented herein is based, in part, on the following, which are included in Appendix K of this Draft EIR:

K-1 Energy Calculations, CAJA Environmental Services, July 2019.

K-2 County Fuel Calculations, CAJA Environmental Services, July 2019.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.¹

¹ For more information on the CAFE standards, refer to www.nhtsa.gov/Laws-&-Regulations/CAFE-%E2%80%93-Fuel-Economy, accessed May 23, 2018.

(2) State

a. California Building Standards Code (Title 24)

(i) California Building Energy Efficiency Standards (Title 24, Part 6)

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2016 Title 24 standards, which became effective on January 1, 2017.² The 2016 Title 24 standards include efficiency improvements to the residential standards for attics, walls, water heating, and lighting, and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1 2013 national standards.³

(ii) California Green Building Standards (Title 24, Part 11)

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, most recently went into effect on January 1, 2017. The 2016 CALGreen Code includes mandatory measures for non-residential development related to site development; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.⁴ Most mandatory measure changes, when compared to the previously applicable 2013 CALGreen Code, were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicle (EV) chargers and charging and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification.⁵

² CEC, 2016 Building Energy Efficiency Standards, www.energy.ca.gov/title24/2016standards/, accessed May 23, 2018.

³ CEC, 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings, June 2015.

⁴ California Building Standards Commission, *Guide to the 2016 California Green Building Standards Code Nonresidential*, January 2017.

⁵ California Building Standards Commission, *2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 4—Residential Mandatory Measures, effective January 1, 2017*.

For nonresidential mandatory measures, the table (Table 5.106.5.3.3) identifying the number of required EV charging spaces has been revised in its entirety.⁶

b. California's Renewable Portfolio Standard

First established in 2002 under Senate Bill 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020.⁷ The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.⁸

c. Senate Bill 350

Senate Bill (SB) 350, signed October 7, 2015, is the Clean Energy and Pollution Reduction Act of 2015. The objectives of SB 350 are: (1) to increase the procurement of electricity from renewable sources from 33 percent to 50 percent; and (2) to double the energy efficiency savings in electricity and natural gas final end uses of retail customers through energy efficiency and conservation.⁹

d. Assembly Bill 32

As discussed in Section IV.G, Greenhouse Gas Emissions, of this Draft EIR, Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the State to achieving year 2000 greenhouse gas (GHG) emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the CPUC and the CEC with providing information, analysis, and recommendations to the California Air Resources Board (CARB) regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.

⁶ California Building Standards Commission, *2016 California Green Building Standards Code, California Code of Regulations, Title 24, Part 11, Chapter 5—Nonresidential Mandatory Measures, effective January 1, 2017.*

⁷ CPUC, *California Renewables Portfolio Standard (RPS)*, www.cpuc.ca.gov/RPS_Homepage/, accessed May 23, 2018.

⁸ CPUC, *California Renewables Portfolio Standard (RPS)*, www.cpuc.ca.gov/RPS_Homepage/, accessed May 23, 2018.

⁹ *Senate Bill 350 (2015–2016 Reg. Session) Stats 2015, ch. 547.*

e. Assembly Bill 1493 (AB 1493)/Pavley Regulations

AB 1493 (commonly referred to as CARB's Pavley regulations) was the first legislation to regulate GHG emissions from new passenger vehicles. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks) for model years 2009–2016.¹⁰ The Pavley regulations are expected to reduce GHG emissions from California's passenger vehicles by about 30 percent in 2016, while improving fuel efficiency and reducing motorists' costs.¹¹

f. Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by CARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10-percent total reduction in 2020.¹² Petroleum importers, refiners and wholesalers can either develop their own low carbon fuel products, or buy LCFS credits from other companies that develop and sell low carbon alternative fuels, such as biofuels, electricity, natural gas, and hydrogen.¹³

g. California Air Resources Board

(i) CARB's Advanced Clean Cars Program

Closely associated with the Pavley regulations, the Advanced Clean Cars emissions-control program was approved by CARB in 2012.¹⁴ The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero-emission vehicles for model years 2015–2025.¹⁵ The components of the Advanced Clean Cars program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero-Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure

¹⁰ CARB, *Clean Car Standards—Pavley, Assembly Bill 1493*, www.arb.ca.gov/cc/ccms/ccms.htm, accessed May 23, 2018.

¹¹ *Ibid.*

¹² CEC, *Low Carbon Fuel Standard: Fuels and Transportation Division Emerging Fuels and Technologies Office*, www.energy.ca.gov/low_carbon_fuel_standard/, accessed May 23, 2018.

¹³ *Ibid.*

¹⁴ CARB, *California's Advanced Clean Cars Program*, www.arb.ca.gov/msprog/acc/acc.htm, accessed May 23, 2018.

¹⁵ *Ibid.*

ZEVs (meaning battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years.¹⁶

(ii) Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

The Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling (Title 13, California Code of Regulations, Division 3, Chapter 10, Section 2435) was adopted to reduce public exposure to diesel particulate matter and other air contaminants by limiting the idling of diesel-fueled commercial motor vehicles. This section applies to diesel-fueled commercial motor vehicles with gross vehicular weight ratings of greater than 10,000 pounds that are or must be licensed for operation on highways. Reducing idling of diesel-fueled commercial motor vehicles reduces the amount of petroleum-based fuel used by the vehicle.

(iii) Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles

The Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles (Title 13, California Code of Regulations, Division 3, Chapter 1, Section 2025) was adopted to reduce emissions of diesel particulate matter, oxides of nitrogen (NO_x) and other criteria pollutants from in-use diesel-fueled vehicles. This regulation is phased, with full implementation by 2023. The regulation aims to reduce emissions by requiring the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. The newer emission-controlled models would use petroleum-based fuel in a more efficient manner.

h. Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375 (SB 375), coordinates land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction mandates established in AB 32. SB 375 specifically requires each Metropolitan Planning Organization (MPO) to prepare a “sustainable communities strategy” (SCS) as a part of its Regional Transportation Plan (RTP), which is required by the state and federal government, that will achieve GHG emission reduction targets set by CARB for the years 2020 and 2035 by reducing vehicle-

¹⁶ *Ibid.*

miles traveled (VMT) from light-duty vehicles through the development of more compact, complete, and efficient communities.¹⁷

The Project Site is located within the planning jurisdiction of the Southern California Association of Governments (SCAG), as is the entire City. SCAG's first-ever SCS was included in the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012–2035 RTP/SCS), which was adopted by SCAG in April 2012. The goals and policies of the SCS that reduce VMT (and result in corresponding decreases in transportation-related fuel consumption) focus on transportation and land use planning that include building infill projects, locating residents closer to where they work and play, and designing communities so there is access to high quality transit service. SCAG has since adopted the 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS).¹⁸ The goals and policies of the 2016 RTP/SCS are substantially the same as those in the 2012–2035 RTP/SCS. See further discussion below.

i. Senate Bill 1389

Senate Bill 1389 (Public Resources Code Sections 25300–25323; SB 1389) requires the development of an integrated plan for electricity, natural gas, and transportation fuels. The CEC must adopt and transmit to the Governor and Legislature an Integrated Energy Policy Report every two years. The most recently completed report, the 2016 Integrated Energy Policy Report, addresses a variety of issues including the environmental performance of the electricity generation system, landscaped-scale planning, the response to the gas leak at the Aliso Canyon natural gas storage facility, transportation fuel supply reliability issues, update on the Southern California electricity reliability, methane leakage, climate adaptation activities for the energy sector, climate and sea level rise scenarios and the *California Energy Demand Forecast*.¹⁹

(3) Regional

SCAG's 2016 RTP/SCS presents a long-term transportation vision through the year 2040 for the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. On April 7, 2016, the SCAG Regional Council adopted the 2016 RTP/SCS, the mission of which is "leadership, vision and progress which promote economic growth, personal well-being, and livable communities for all Southern Californians."²⁰ The 2016 RTP/SCS includes land use strategies that focus on urban infill growth and walkable, mixed-use communities in existing urbanized and opportunity areas.

¹⁷ CARB, *Sustainable Communities*, www.arb.ca.gov/cc/sb375/sb375.htm, accessed May 23, 2018.

¹⁸ SCAG, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, dated April 2016.

¹⁹ CEC, *2016 Integrated Energy Policy Report*, docketed January 18, 2017.

²⁰ SCAG, *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy*, dated April 2016.

More mixed-use, walkable, and urban infill development would be expected to accommodate a higher proportion of growth in more energy-efficient housing types like townhomes, apartments, and smaller single-family homes, as well as more compact commercial building types. Furthermore, the 2016 RTP/SCS includes transportation investments and land use strategies that encourage carpooling, increase transit use, active transportation opportunities, and promoting more walkable and mixed-use communities, which would potentially help to reduce VMT.

The 2016 RTP/SCS also establishes High-Quality Transit Areas (HQTA), which are described as generally walkable transit villages or corridors that are within 0.5 mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours.²¹ Local jurisdictions are encouraged to focus housing and employment growth within HQTAs to reduce VMT.

(4) Local

a. Green LA: An Action Plan to Lead the Nation in Fighting Global Warming and Climate LA

Green LA is the City of Los Angeles's climate action plan. The plan, released in May 2007, sets forth a goal of reducing the City's GHG emissions to 35 percent below 1990 levels by the year 2030.²² Climate LA is the implementation program that provides detailed information about each action item discussed in the Green LA framework. Climate LA includes focus areas addressing environmental issues including but not limited to energy, water, transportation, and waste.²³ The energy focus area includes action items with measures that aim to increase the use of renewable energy to 35 percent by 2020, reduce the use of coal-fired power plants, and present a comprehensive set of green building policies to guide and support private sector development.²⁴

b. City of Los Angeles Green Building Code

On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the "Los Angeles Green Building Code," by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filed on or after January 1, 2017, must comply with the

²¹ SCAG, 2016–2040 RTP/SCS, p. 8.

²² City of Los Angeles, *Green LA: An Action Plan to Lead the Nation In Fighting Global Warming*, May 2007.

²³ City of Los Angeles, *Climate LA: Municipal Program Implementing the GreenLA Climate Action Plan*, 2008.

²⁴ *Ibid.*

provisions of the Los Angeles Green Building Code. Specific mandatory requirements and elective measures are provided for three categories: (1) low-rise residential buildings; (2) nonresidential and high-rise residential buildings; and (3) additions and alterations to nonresidential and high-rise residential buildings. Article 9, Division 5 includes mandatory measures for newly constructed nonresidential and high-rise residential buildings.

c. City of Los Angeles Solid Waste Programs and Ordinances

The recycling of solid waste materials also contributes to reduced energy consumption. Specifically, when products are manufactured using recycled materials, the amount of energy that would have otherwise been consumed to extract and process virgin source materials is reduced. For example, in 2015, 3.61 million tons of aluminum were produced by recycling in the United States, saving enough energy to provide electricity to 7.5 million homes.²⁵ In 1989, California enacted Assembly Bill 939 (AB 939), the California Integrated Waste Management Act, which establishes a hierarchy for waste management practices such as source reduction, recycling, and environmentally safe land disposal.²⁶ The City of Los Angeles includes programs and ordinances related to solid waste. They include: (1) the City of Los Angeles Solid Waste Management Policy Plan, which was adopted in 1993 and is a long-range policy plan promoting source reduction for recycling for a minimum of 50 percent of the City's waste by 2000 and 70 percent of the waste by 2020; (2) the RENEW LA Plan, which is a Resource Management Blueprint with the aim to achieve a zero waste goal through reducing, reusing, recycling, or converting the resources now going to disposal so as to achieve an overall diversion level of 90 percent or more by 2025; (3) the Waste Hauler Permit Program (Ordinance 181,519), which requires all private waste haulers collecting solid waste, including construction and demolition waste, to obtain AB 939 Compliance Permits and to transport construction and demolition waste to City certified construction and demolition processing facilities; and (4) the Exclusive Franchise System Ordinance (Ordinance No. 182,986), which, among other requirements, sets maximum annual disposal levels and specific diversion requirements for franchised waste haulers in the City to promote solid waste diversion from landfills in an effort to meet the City's zero waste goals. These solid waste reduction programs and ordinances help to reduce the number of trips to haul solid waste, therefore reducing the amount of petroleum-based fuel, and also help to reduce the energy used to process solid waste.

²⁵ *American Geosciences Institute, How Does Recycling Save Energy?, www.americangeosciences.org/critical-issues/faq/how-does-recycling-save-energy, accessed May 23, 2018.*

²⁶ *CalRecycle, History of California Solid Waste Law, 1985–1989 www.calrecycle.ca.gov/laws/legislation/calhist/1985to1989.htm. Accessed May 23, 2018.*

b. Existing Conditions

(1) Electricity

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands.

Energy capacity, or electrical power, is generally measured in watts (W) while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

The Los Angeles Department of Water and Power (LADWP) provides electrical service throughout the City of Los Angeles and many areas of the Owens Valley, serving approximately 4 million people within a service area of approximately 465 square miles, excluding the Owens Valley. Electrical service provided by the LADWP is divided into two planning districts: Valley and Metropolitan. The Valley Planning District includes the LADWP service area north of Mulholland Drive, and the Metropolitan Planning District includes the LADWP service area south of Mulholland Drive. The Project Site is located within LADWP's Metropolitan Planning District.

LADWP generates power from a variety of energy sources, including hydropower, coal, gas, nuclear sources, and renewable resources, such as wind, solar, and geothermal sources. According to LADWP's 2017 Power Strategic Long-Term Resource Plan, the LADWP has over 7,880 MW of generation capacity.²⁷ In 2017, the LADWP power system experienced a record instantaneous peak demand of 6,502 MW on August 31, 2017.²⁸ Approximately 29 percent of LADWP's 2017 electricity purchases were from renewable

²⁷ LADWP, *2017 Power Strategic Long-Term Resource Plan*, p. ES-1.

²⁸ *Ibid.*

sources, which is similar to the 25 percent statewide percentage of electricity purchases from renewable sources.²⁹

LADWP supplies electrical power to the Project Site from electrical service lines located in the Project vicinity. As shown in Table IV.E-1, the existing land use on the Project Site consumes approximately 8,528 kWh of electricity per year.

**Table IV.E-1
Existing Electricity Consumption on the Project Site**

Land Use	Size	Total (kw-h/yr)
Single-family residence	2,018 sf	8,528
Total		8,528
<i>sf =square feet kw-h = kilowatt-hour yr = year Source: Calculated via CalEEMod. Refer to Appendix D of this Draft EIR. LADWP does not provide or comment on generation rates to provide an estimate of demand.</i>		

(2) Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network, and, therefore, resource availability is typically not an issue. Natural gas provides almost one-third of the state's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet (cf).

The Southern California Gas Company (SoCalGas) is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the Mexican border.³⁰

SoCalGas receives gas supplies from several sedimentary basins in the western United States and Canada, including supply basins located in New Mexico (San Juan Basin), West Texas (Permian Basin), the Rocky Mountains, and Western Canada as well as local California supplies. The traditional, southwestern United States sources of natural

²⁹ *ibid.*

³⁰ SoCalGas, *Company Profile*, www.socalgas.com/about-us/company-info.shtml, accessed May 23, 2018.

gas will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and the use of Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport.³¹ The existing building on the Project Site is not currently connected to natural gas infrastructure, although there is an existing natural gas line at the intersection of Mulholland Drive and Runyon Canyon Road.

(3) Transportation Energy

According to the CEC, transportation accounts for nearly 37 percent of California's total energy consumption in 2014.³² In 2015, California consumed 15.1 billion gallons of gasoline and 2.82 billion gallons of diesel fuel.^{33, 34} Petroleum-based fuels currently account for 90 percent of California's transportation energy sources.³⁵ However, the State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT. Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels.³⁶ According to CARB's EMFAC Web Database, Los Angeles County on-road transportation sources consumed 3.99 billion gallons of gasoline and 0.68 billion gallons of diesel fuel in 2016.³⁷

The existing single-family residential use currently generates a demand for transportation-related fuel use as a result of vehicle trips to and from the Project Site. The estimate of annual VMT associated with the existing Project Site uses is 32,282 VMT per year.³⁸ A study by Caltrans found that the statewide average fuel economy for all vehicle types (automobiles, trucks, and motorcycles) is approximately 20.4 miles per gallon

³¹ *California Gas and Electric Utilities, 2018 California Gas Report, pp. 80.*

³² *CEC, 2016 Integrated Energy Policy Report, docketed January 18, 2017, p. 4.*

³³ *California Board of Equalization, Net Taxable Gasoline Gallons 10-Year Report.*

³⁴ *California Board of Equalization, Net Taxable Diesel Gallons 10-Year Report.*

³⁵ *CEC, 2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, March 2016.*

³⁶ *CEC, 2015 Integrated Energy Policy Report, docketed June 29, 2016, p. 113.*

³⁷ *California Air Resources Board, EMFAC2014 Web Database, www.arb.ca.gov/emfac/2014/*

³⁸ *Existing VMT derived from air quality trips and VMT model sheets included in Appendix D to this Draft ER.*

(mpg).³⁹ Thus, existing trip generation from the Project Site consumes approximately 1,440 gallons of fuel per year and 509 gallons of diesel per year (calculations included in Appendix K of this Draft EIR).

3. Project Impacts

This analysis addresses the Project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. The Project's estimated energy consumption was calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2. Specific analysis methodologies are discussed below.

a. Thresholds of Significance

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

Threshold (a): Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Threshold (b): Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

With regard to potential impacts to energy, the *L.A. CEQA Thresholds Guide* states that a determination of significance shall be made on a case-by case basis, considering the following factors:

- The extent to which the project would require new (off-site) energy supply facilities and distribution infrastructure; or capacity-enhancing alterations to existing facilities;
- Whether and when the needed infrastructure was anticipated by adopted plans; and
- The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements.

³⁹ Caltrans, 2007 California Motor Vehicle Stock, Travel and Fuel Forecast, Table 7, <http://www.energy.ca.gov/2008publications/CALTRANS-1000-2008-036/CALTRANS-1000-2008-036.PDF>, accessed May 23, 2018.

In accordance with Appendix G and the *L.A. CEQA Thresholds Guide*, the following criteria will be considered in determining whether this threshold of significance is met:

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
2. The effects of the project on local and regional energy supplies and on requirements for additional capacity;
3. The effects of the project on peak and base period demands for electricity and other forms of energy;
4. The degree to which the project complies with existing energy standards;
5. The effects of the project on energy resources;
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives;
7. The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements; and
8. Whether the Project conflicts with adopted energy conservation plans.

With regard to Threshold (b), the Project will be evaluated for consistency with adopted energy conservation plans and policies relevant to the Project. Such adopted energy conservation plans and policies include Title 24 energy efficiency requirements, CalGreen, and City building codes.

b. Methodology

(1) Construction

Electricity usage associated with the supply and conveyance of water used for dust control during construction was calculated using CalEEMod.⁴⁰ Electricity used to power lighting, electronic equipment, and other construction activities necessitating electrical power was assumed to be negligible. In terms of natural gas, construction activities typically do not involve the consumption of natural gas. Fuel consumption from on-site heavy-duty construction equipment was calculated based on the equipment mix and usage

⁴⁰ *California Air Pollution Control Officers Association, CalEEMod™ version 2016.3.1 User's Guide, September 2016.*

factors provided in the CalEEMod construction output files included in Appendix D of this Draft EIR. The total horsepower was then multiplied by fuel usage estimates per horsepower-hour included in Table A9-3-E of the South Coast Air Quality Management District's (SCAQMD) *CEQA Air Quality Handbook*. Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total VMT was then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC 2014 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Consistent with CalEEMod, construction worker trips were assumed to include 50 percent light duty gasoline automobiles and 50 percent light duty gasoline trucks. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks. Refer to Appendix K of this Draft EIR for detailed calculations.

(2) Operation

Annual consumption of electricity (including electricity usage associated with the supply and conveyance of water) and natural gas was calculated using demand factors provided in CalEEMod; energy impacts associated with transportation during operation were also assessed. As discussed in greater detail in Section IV.M, Transportation/Traffic, the Project would result in a negligible number of trips as there is currently an existing single-family residence on the Project Site and the occupants of the existing single-family residence would move into the new single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the annual VMT for the Project (and associated gasoline and diesel consumption) is assumed to be the same as for the existing use. Supporting calculations are provided in Appendix K of this Draft EIR. These calculations were used to determine if the Project causes the wasteful, inefficient and/or unnecessary consumption of energy.

The Project's estimated energy demands were also analyzed relative to LADWP's and SoCalGas' existing and planned energy supplies to determine if these two energy utility companies would be able to meet the Project's energy demands. Finally, the capacity of local infrastructure to accommodate the Project's estimated electricity and natural gas demand was assessed.

c. Project Design Features

The Project will incorporate sustainability design features provided as part of Project Design Feature GHG-PDF-1, provided in Section IV.G, Greenhouse Gas Emissions.

d. Analysis of Project Impacts

Threshold (a): Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The following analysis considers the eight criteria identified in the Thresholds of Significance subsection above to determine whether this significance threshold would be exceeded.

- (1) The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.

As discussed above, the Project would consume energy during construction and operational activities. Sources of energy for these activities would include electricity usage, natural gas consumption, and transportation fuels such as diesel and gasoline. The analysis below includes the Project's energy requirements and energy use efficiencies by fuel type for each stage of the Project (construction, operations, maintenance, and removal activities).

a. Construction

During Project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, and delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities).

As shown in Table IV.E-2, a total of 2,661 kWh of electricity, 4,814 gallons of gasoline, and 42,578 gallons of diesel is estimated to be consumed during Project construction.

(i) Electricity

During construction of the Project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting,

electronic equipment, and other construction activities necessitating electrical power. Electricity would be supplied to the Project Site by LADWP and would be obtained from the existing electrical lines that connect to the Project Site. As shown in Table IV.E-2, a total of approximately 2,661 kWh of electricity is anticipated to be consumed during Project construction. The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption.

**Table IV.E-2
Summary of Energy Use During Project Construction**

Energy Type	Quantity
Electricity	
Water Consumption	2,661 kWh
Lighting, electronic equipment, and other construction activities necessitating electrical power	N/A
Total Electricity	2,661 kWh
Transportation - Gasoline	
On-Road Construction Equipment	4,814 gallons
Off-Road Construction Equipment	0 gallons
Total Gasoline	4,814 gallons
Transportation - Diesel	
On-Road Construction Equipment	3,159 gallons
Off-Road Construction Equipment	39,419 gallons
Total Diesel	42,578 gallons
Total Petroleum-Based Fuel	47,392 gallons
<i>kWh = kilowatt-hours</i>	
<i>Detailed calculations are included in Appendix K of this Draft EIR.</i>	

The estimated construction electricity usage represents approximately 33 percent of the estimated annual operational demand which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP.⁴¹

(ii) Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no natural gas demand generated by construction.

⁴¹ *The percentage is derived by taking the total amount of electricity usage during construction (2,661 kWh) and dividing that number by the total amount of electricity usage per year during operation (7,976 kWh) to arrive at approximately 33 percent.*

(iii) Transportation Energy

The petroleum-based fuel use summary provided above in Table IV.E-2 represents the amount of transportation energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in Appendix K, of this Draft EIR. As shown, on- and off-road vehicles would consume an estimated 4,814 gallons of gasoline and approximately 42,578 gallons of diesel fuel throughout the Project's construction. For comparison purposes, the fuel usage during Project construction would represent approximately 0.00011 percent of the 2017 annual on-road gasoline-related energy consumption and 0.007 percent of the 2017 annual diesel fuel-related energy consumption in Los Angeles County, as shown in Appendix K-2, of this Draft EIR.

b. Operation

During operation of the Project, energy would be consumed for multiple purposes, including, but not limited to, heating/ventilating/air conditioning (HVAC); refrigeration; lighting; and the use of electronics, equipment, and machinery. Energy would also be consumed during Project operations related to water usage, solid waste disposal, and vehicle trips. As shown in Table IV.E-3 and IV.E-4 below, the Project's energy demand would be approximately 7,976 kWh of electricity per year, 27,496 kBtu of natural gas per year, 1,439 gallons of gasoline per year, and 509 gallons of diesel fuel per year.

(i) Electricity

As shown in Table IV.E-3, with compliance with 2016 Title 24 standards and applicable 2016 CALGreen requirements, buildout of the Project would result in a projected on-site demand for electricity totaling approximately 7,976 kWh per year (or approximately 15,895 MWh per year). In addition to complying with CALGreen, the Project will also implement Project Design Feature PDF-GHG-1, presented in Section IV.G, Greenhouse Gas Emissions, of this Draft EIR, which states that the Project would include a green roof, and would use Energy Star-labeled products and water-efficient and drought-tolerant landscaping. These measures would further reduce the Project's energy demand. In addition, LADWP is required to procure at least 33 percent of their energy portfolio from renewable sources by 2020. The current sources procured by LADWP include wind, solar, and geothermal sources. These sources account for 29 percent of LADWP's overall energy mix in 2017, the most recent year for which data are available.⁴² This represents the available off-site renewable sources of energy that would meet the Project's energy demand. Furthermore, the Project would comply with Section 110.10 of Title 24, which includes mandatory requirements for solar-ready buildings, and, as such, would not preclude the potential use of alternate fuels.

⁴² LADWP, 2017 Power Strategic Long-Term Resource Plan, p. ES-1.

Based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its retail sales in the 2020–2021 fiscal year will be 22,492 GWh of electricity.⁴³ As such, the Project-related net increase in annual electricity consumption of approximately 7.98 MWh per year would represent approximately 0.008 percent of LADWP's projected sales in 2020-2021. In addition, as previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

**Table IV.E-3
Estimated Project Operation Electricity Demand**

Land Use	Size	Total (kWh/yr) ¹
Single-family residence	1 du	7,976
Project Total		7,976
<i>du = dwelling unit kWh = kilowatt-hours yr = year</i> ¹ <i>Calculated via CalEEMod. Refer to Appendix D of this Draft EIR. While the basement and mechanical/electrical areas are excluded from floor area calculations per the Department of Building and Safety, the calculations contained in Appendix D conservatively include these areas.</i> <i>Note: LADWP does not provide or comment on generation rates to provide an estimate of demand.</i>		

(ii) Natural Gas

As provided in Table IV.E-4, with compliance with 2016 Title 24 standards and applicable 2016 CALGreen requirements, buildout of the Project is projected to generate an on-site demand for natural gas totaling approximately 27,496 kBtu per year. As discussed above, in addition to complying with applicable regulatory requirements regarding energy conservation (e.g., California Building Energy Efficiency Standards and CALGreen), the Project will implement project design features to further reduce energy use.

As stated above, the Project's estimated demand for natural gas is 27,496 kBtu per year (26,799 cubic feet [cf] per year, assuming 1 cf = 1.026 kBtu), or approximately 75 kBtu per day (73 cubic feet per day). Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,566 million cf per day in 2020.⁴⁴ The Project would account for approximately 0.000003 percent of the 2020 forecasted consumption in SoCalGas' planning area. In addition, as also previously described, the Project would incorporate a variety of energy conservation measures to reduce energy usage.

⁴³ LADWP, 2017 Power Strategic Long-Term Resource Plan, p. 71.

⁴⁴ California Gas and Electric Utilities, 2018 California Gas Report, p. 20.

**Table IV.E-4
Estimated Project Operation Natural Gas Demand**

Land Use	Size	Total (kBTU/yr)¹
Single-family residence	1 du	27,496
Project Total		27,496
<i>du = dwelling unit kBTU = 1,000 British thermal units yr = year</i> ¹ <i>Calculated via CalEEMod. Refer to Appendix D of this Draft EIR. While the basement and mechanical/electrical areas are excluded from floor area calculations per the Department of Building and Safety, the calculations contained in Appendix D conservatively include these areas.</i> <i>Note: LADWP does not provide or comment on generation rates to provide an estimate of demand.</i>		

(iii) Transportation Energy

During operation, Project-related traffic would result in the consumption of petroleum-based fuels related to vehicular travel to and from the Project Site. However, as discussed in greater detail in Section IV.M, Transportation/Traffic, the Project would result in a negligible number of trips as there is currently an existing single-family residence on the Project Site and the occupants of the existing single-family residence would move into the new single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the annual VMT for the Project (and associated gasoline and diesel consumption) is assumed to be the same as for the existing use.

c. Summary of Energy Requirements and Energy Use Efficiencies

The Project's energy requirements were calculated based on the methodology contained in CalEEMod for electricity and natural gas usage. Project VMT data was calculated based on CAPCOA guidelines. The calculations also took into account energy efficiency measures such as Title 24, CalGreen and vehicle fuel economy standards. During Project construction activities, a total of 2,661 kWh of electricity would be consumed along with 47,392 gallons of transportation fuel (gasoline and diesel). During Project operations, a total of 7,976 kWh of electricity, 27,496 kBTU of natural gas (26,799 cf of natural gas), and 1,948 gallons of transportation fuel would be consumed on an annual basis.

(2) The effects of the project on local and regional energy supplies and on requirements for additional capacity

a. Construction

As discussed above, electricity would be intermittently consumed during the conveyance of the water used to control fugitive dust, as well as to provide electricity for temporary lighting and other general construction activities. The electricity demand at any

given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 33 percent of the estimated net annual operational demand, which, as discussed below, would be within the supply and infrastructure service capabilities of LADWP. Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no natural gas demand generated by construction, resulting in a net decrease when compared to existing operations. Transportation fuel usage during Project construction activities would represent approximately 0.00011 percent of gasoline usage and 0.007 percent of diesel usage within Los Angeles County, respectively. As energy consumption during Project construction activities would be relatively negligible, the Project would not likely affect regional energy consumption in years during the construction period.

b. Operation

As described above, based on LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP forecasts that its total retail sales in the 2020–2021 fiscal year will be 22,492 GWh of electricity. The Project-related increase in annual electricity consumption of 7.98 MWh per year would represent approximately 0.008 percent of LADWP's projected sales in 2020-2021. Therefore, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.

As stated above, the Project's estimated increase in demand for natural gas is approximately 27,496 kBTU per year (26,799 cf per year), or approximately 75 kBTU per day (73 cubic feet per day). Based on the 2018 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCalGas' planning area will be approximately 2,566 million cf per day in 2020.⁴⁵ The Project would account for approximately 0.000003 percent of the 2020 forecasted consumption in SoCalGas' planning area. At buildout, Project operation would consume a total of 1,439 gallons of gasoline and a total of 509 gallons of diesel per year, or a total of 1,948 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.00003 percent of the 2017 annual on-road gasoline and approximately 0.00008 percent of the annual on-road diesel-related energy consumption in Los Angeles County, as shown in Appendix K-2, of this Draft EIR.

⁴⁵ *California Gas and Electric Utilities, 2018 California Gas Report, p. 20.*

In sum, energy consumption during Project operations would be negligible and energy requirements are within LADWP's and SoCalGas' service provision.

(3) The effects of the project on peak and base period demands for electricity and other forms of energy

As discussed above, electricity demand during construction and operation of the Project would have a negligible effect on the overall capacity of LADWP's power grid and base load conditions. With regard to peak load conditions, the LADWP power system experienced an all time high peak of 6,432 MW on August 31, 2017.⁴⁶ The LADWP also estimates a peak load based on two years of data known as base case peak demand to account for typical peak conditions. Based on LADWP estimates for 2017, the base case peak demand for the power grid is 5,854 MW.⁴⁷ Under peak conditions, the Project would consume 7,976 kWh on an annual basis which is equivalent to 0.91 kW. In comparison to the LADWP power grid base peak load of 5,854 MW in 2017, the Project would represent approximately 0.000015 percent of the LADWP base peak load conditions. In addition, LADWP's annual growth projection in peak demand of the electrical power grid of 0.4 percent would be sufficient to account for future electrical demand by the Project.⁴⁸ Therefore, Project electricity consumption during operational activities would have a negligible effect on peak load conditions of the power grid.

(4) The degree to which the project complies with existing energy standards

Although Title 24 requirements typically apply to energy usage for buildings, construction equipment would also comply with Title 24 requirements where applicable. Electricity and Natural Gas usage during Project operations presented in Tables IV.E-3 and IV.E-4, respectively, would comply with 2016 Title 24 standards and applicable 2016 CalGreen requirements and Los Angeles Green Building Code. Therefore, Project construction and operational activities would comply with existing energy standards with regards to electricity and natural gas usage.

With regard to transportation fuels, trucks and equipment used during proposed construction activities, the Project would comply with CARB's anti-idling regulations as well as the In-Use Off-Road Diesel-Fueled Fleets regulation. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in efficient use of construction-related energy. During Project operations, vehicles travelling to and from the Project Site are assumed to

⁴⁶ LADWP, 2017 Retail Electric Sales and Demand Forecast. p. 6.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

comply with CAFE fuel economy standards. Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFÉ standards. Therefore, Project construction and operational activities would comply with existing energy standards with regards to transportation fuel consumption.

(5) Effects of the project on energy resources

As discussed above, LADWP's electricity generation is derived from a mix of non-renewable and renewable sources such as coal, natural gas, solar, geothermal wind and hydropower. The LADWP's most recently adopted 2017 Strategic Long-Term Resource Plan identifies adequate resources to support future generation capacity.

Natural gas supplied to the Southern California is mainly sourced from out of state with a small portion originating in California. Sources of natural gas for the Southern California region are obtained from locations throughout the western United States as well as Canada.⁴⁹ According to the U.S. Energy Information Administration (EIA), the United States currently has over 80 years of natural gas reserves based on 2015 consumption.⁵⁰ Compliance with energy standards is expected to result in more efficient use of natural gas (lower consumption) in future years. Therefore, Project construction and operation activities would have a negligible effect on natural gas supply.

Transportation fuels (gasoline and diesel) are produced from crude oil, which is imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of consumption.⁵¹ The Project would also comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards, which are designed to reduce vehicle GHG emissions but would also result in fuel savings in addition to CAFÉ standards. Therefore, Project construction and operation activities would have a negligible effect on the transportation fuel supply.

As discussed above in the Regulatory Framework, one of the objectives of SB 350 is to increase procurement of California's electricity from renewable sources from 33 percent to 50 percent by 2030. Accordingly, LADWP is required to procure at least 50 percent of their energy portfolio from renewable sources by 2030. The current sources of renewable energy procured by LADWP include wind, solar, geothermal, biomass/biowaste, and small hydroelectric sources. These sources account for 29 percent of LADWP's overall energy

⁴⁹ 2016 California Gas Report. California Gas and Electric Utilities. 2016.

⁵⁰ U.S. Energy Information Administration, www.eia.gov/tools/faqs/faq.php?id=58&t=8, accessed May 23, 2018.

⁵¹ BP Global, Oil reserves, www.bp.com/en/global/corporate/energy-economics/statistical-review-of-world-energy/oil/oil-reserves.html, accessed May 23, 2018.

mix in 2017, the most recent year for which data are available.⁵² This represents the available off-site renewable sources of energy that would meet the Project's energy demand.

With regard to on-site renewable energy sources, due to the Project Site's location, other on-site renewable energy sources would not be feasible to install on-site as there are no local sources of energy from the following sources: biodiesel, biomass hydroelectric and small hydroelectric, digester gas, fuel cells, landfill gas, municipal solid waste, ocean thermal, ocean wave, and tidal current technologies, or multi-fuel facilities using renewable fuels. Furthermore, methane is not available on the Project Site in commercially viable quantities or form, and its extraction and treatment for energy purposes would result in secondary impacts. Additionally, wind-powered energy is not viable on the Project Site due to the lack of sufficient wind in the Los Angeles basin. Specifically, based on a map of California's wind resource potential, the Project Site is not identified as an area with wind resource potential.⁵³

(6) The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives

As discussed in greater detail in Section IV.M, Transportation/Traffic, the Project would result in a negligible number of trips as there is currently an existing single-family residence on the Project Site and the occupants of the existing single-family residence would move into the new single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the annual VMT for the Project (and associated gasoline and diesel consumption) is assumed to be the same as for the existing use. In addition, the Project would not inhibit the City's efforts to reduce VMT per capita. Therefore, the Project would not increase VMT over the existing uses, and would not preclude the use of efficient transportation alternatives.

(7) The degree to which the project design and/or operations incorporate energy-conservation measures, particularly those that go beyond City requirements

The current City of LA Green Building Code requires compliance with CalGreen and California's Building Energy Efficiency Standards (Title 24). The City has also adopted several plans and regulations to promote the reduction, reuse, recycling, and conversion of solid waste going to disposal systems. These regulations include the City of Los Angeles

⁵² LADWP, *2017 Strategic Long-Term Resource Plan*, p. ES-1.

⁵³ CEC, *Wind Resource Area & Wind Resources*, www.energy.ca.gov/maps/renewable/wind.html, accessed May 23, 2018.

Solid Waste Management Policy Plan, the RENEW LA Plan, and the Exclusive Franchise System Ordinance (Ordinance No. 182,986). These solid waste reduction programs and ordinances help to reduce the number of trips associated with hauling solid waste, thereby reducing the amount of petroleum-based fuel consumed. Furthermore, recycling efforts indirectly reduce the energy necessary to create new products made of raw material, which is an energy-intensive process. Thus, through compliance with the City's construction-related solid waste recycling programs, the Project would contribute to reduced fuel-related energy consumption.

The Project will incorporate sustainability design features beyond the regulatory requirements, such as those included in Project Design Feature GHG-PDF-1 (in Section IV.G, Greenhouse Gas Emissions). With implementation of these features along with compliance with state and local energy efficiency standards, the Project demonstrates a high degree of energy-conservation measures that meet and/or exceed all applicable energy conservation policies and regulations.

(8) Whether the Project conflicts with adopted energy conservation plans

The Project would comply with applicable regulatory requirements for the design of new buildings, including the provisions set forth in the 2016 CALGreen Code and California's Building Energy Efficiency Standards, which have been incorporated into the City of Los Angeles Green Building Code. In addition, the Project would comply with the Green New Deal Sustainability Plan 2019, which is designed to move the City to a carbon neutral future. As discussed in greater detail in Section IV.G, Greenhouse Gas Emissions, the Project does not conflict with applicable strategies from the plan, nor does it impede the City from achieving any targets identified in the plan. As such, the Project would be consistent with adopted energy conservation plans.

(9) Conclusion Regarding Significance Threshold No. 1

As demonstrated in the analysis of the eight criteria discussed above, the Project would not cause wasteful, inefficient, and unnecessary consumption of energy during construction or operation. The Project's energy requirements would not significantly affect local and regional supplies or capacity. The Project's energy usage during peak and base periods would also be consistent with electricity and natural gas future projections for the region. Electricity generation capacity and supplies of natural gas and transportation fuels would also be sufficient to meet the needs of Project-related construction and operations. During operations, the Project will comply with existing energy efficiency requirements such as CalGreen as well as include energy conservation measures beyond requirements. In summary, the Project's energy demands would not significantly affect available energy supplies and would comply with existing energy efficiency standards. **Therefore, Project**

impacts related to energy use under Significance Threshold No. 1 would be less than significant during construction and operation.

Significance Threshold No. 2: Would the Project result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

(1) Construction

a. Electricity

As discussed above, construction activities at the Project Site would require minor quantities of electricity for lighting, power tools and other support equipment. Heavy construction equipment would be powered with diesel fuel.

During Project construction activities, electricity usage represents 33 percent of the estimated annual Project operational demand, which as described below, LADWP's existing electrical infrastructure currently has enough capacity to provide service. As existing power lines are located in the vicinity of the Project Site, temporary power poles may be installed to provide electricity during Project construction. Existing off-site infrastructure would not have to be expanded or newly developed to provide electrical service to the project during construction or demolition. **Therefore, the Project would not result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

With regard to existing electrical distribution lines, the Applicant would be required to coordinate electrical infrastructure removals or relocations with LADWP and comply with site-specific requirements set forth by LADWP, which would ensure that service disruptions and potential impacts associated with grading, construction, and development within LADWP easements are minimized. **As such, construction of the Project is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.**

b. Natural Gas

Construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus there would be no demand generated by construction. As there is currently an existing natural gas line at the intersection of Mulholland Drive and Runyon Canyon Road, construction impacts

associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, Project contractors would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service to other properties. **Therefore, construction of the Project would not result in an increase in demand for natural gas to affect available supply or distribution infrastructure capabilities and would not result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

(2) Operation

a. Electricity

As shown in Table IV.E-3, the Project's operational electricity usage would be 7,976 kWh per year, which is approximately 0.008 percent of LADWP's projected sales in 2020-2021. In addition, during peak conditions, the Project's operational electricity use would represent approximately 0.000015 percent of the LADWP estimated peak load. **Therefore, during Project operations, it is anticipated that LADWP's existing and planned electricity capacity and electricity supplies would be sufficient to support the Project's electricity demand.**

b. Natural Gas

As shown in Table IV.E-4, the Project would consume 27,496 kBtu per year (26,799 cubic feet per year), or approximately 75 kBtu per day (73 cubic feet per day), which represents approximately 0.000003 percent of the 2020 forecasted consumption in the SoCalGas planning area. **Therefore, it is anticipated that SoCalGas' existing and planned natural gas supplies would be sufficient to support the Project's net increase in demand for natural gas.**

(3) Conclusion Regarding Significance Threshold No. 2

As demonstrated in the analysis above, construction and operation of the Project would not result in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. **Therefore, Project impacts related to energy infrastructure capacity would be less than significant during construction and operation.**

4. Cumulative Impacts

a. Significance Threshold No. 1 (Wasteful, Inefficient and Unnecessary use of Energy)

Cumulative impacts occur when impacts that are significant or less than significant from a proposed project combine with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. Based on the information presented in Section III, Environmental Setting, of this Draft EIR, there are five related projects located within the vicinity of the Project Site. The geographic context for the cumulative analysis of electricity is LADWP's service area and the geographic context for the cumulative analysis of natural gas is SoCalGas' service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the Project in the context of County-wide consumption. Growth within these geographies is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure, such as new or expanded energy facilities.

(1) Electricity

Buildout of the Project, related projects, and additional forecasted growth in LADWP's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. LADWP forecasts that its total retail sales in the 2020–2021 fiscal year will be 22,492 GWh of electricity. Based on the Project's estimated electrical consumption of 7,976 kWh/year, the Project would account for approximately 0.008 percent of LADWP's total projected retail sales during 2020-2021. Thus, although Project development would result in the use of renewable and non-renewable electricity resources during construction and operation, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures making the Project more energy-efficient, and would be consistent with growth expectations for LADWP's service area. Furthermore, as with the Project, during construction and operation, other future development projects would be expected to incorporate energy conservation features, and comply with applicable regulations including CALGreen and state energy standards under Title 24. **As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.**

(2) Natural Gas

Buildout of the Project, related projects, and additional forecasted growth in SoCalGas' service area would cumulatively increase the demand for natural gas supplies and infrastructure capacity. Based on the 2018 California Gas Report, the CEC estimates natural gas consumption within SoCalGas' planning area will be approximately 2,566

million cf per day in 2020.⁵⁴ The Project would account for approximately 0.000003 percent of the 2020 forecasted consumption in SoCalGas' planning area. SoCalGas forecasts take into account projected population growth and development based on local and regional plans. Although Project development would result in the use of natural gas resources, which could limit future availability, the use of such resources would be on a relatively small scale, would be reduced by measures rendering the Project more energy-efficient, and would be consistent with regional and local growth expectations for SoCalGas' service area. Furthermore, future development projects would be expected to incorporate energy conservation features, and comply with applicable regulations including CALGreen and state energy standards under Title 24. **As such, the Project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of natural gas would not be cumulatively considerable and, thus, would be less than significant.**

(3) Transportation Energy

Buildout of the Project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation-related fuel in the state and region. As described above, at buildout, the Project would consume a net total of 1,439 gallons of gasoline and 509 gallons of diesel per year, or a total of 1,948 gallons of petroleum-based fuels per year. For comparison purposes, the transportation-related fuel usage for the Project would represent approximately 0.00003 percent of the 2017 annual on-road gasoline and approximately 0.00008 percent of the annual on-road diesel-related energy consumption in Los Angeles County, as shown in Appendix K-2, of this Draft EIR.

Additionally, as described above, petroleum currently accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled which would reduce reliance on petroleum fuels. According to the CEC, gasoline consumption has declined by 6 percent since 2008, and the CEC predicts that the demand for gasoline will continue to decline over the next 10 years and that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the Project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions. **Therefore, the Project's contribution to cumulative impacts related to wasteful, inefficient, and unnecessary use of transportation fuel would not be cumulatively considerable and, thus, would be less than significant.**

⁵⁴ *California Gas and Electric Utilities, 2018 California Gas Report, p. 20.*

(4) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas, and fuel) would not result in a cumulatively considerable effect related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation. As such, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy impacts under Significance Threshold No. 1 are concluded to be less than significant.

b. Significance Threshold No. 2 (Infrastructure Capacity Analysis)

(1) Electricity

Electricity infrastructure is typically expanded in response to increasing demand, and system expansion and improvements by LADWP are ongoing. As described in LADWP's 2017 Power Strategic Long-Term Resource Plan, LADWP would continue to expand delivery capacity as needed to meet demand increases within its service area at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards. The 2017 Power Strategic Long-Term Resource Plan takes into account future energy demand, advances in renewable energy resources and technology, energy efficiency, conservation, and forecast changes in regulatory requirements. Development projects within the LADWP service area would also be anticipated to incorporate site-specific infrastructure improvements, as necessary. Each of the related projects would be reviewed by LADWP to identify necessary power facilities and service connections to meet the needs of their respective projects. Project applicants would be required to provide for the needs of their individual projects, thereby contributing to the electrical infrastructure in the Project area. **As such, the Project's contribution to cumulative impacts with respect to electricity infrastructure would not be cumulatively considerable and, thus, would be less than significant.**

(2) Natural Gas

Natural gas infrastructure is typically expanded in response to increasing demand and system expansion and improvements by SoCalGas occur as needed. It is expected that SoCalGas would continue to expand delivery capacity if necessary to meet demand increases within its service area. Development projects within its service area, including the Project and related projects also served by the existing SoCalGas infrastructure, would also be anticipated to incorporate site-specific infrastructure improvements, as appropriate. **As such, the Project's contribution to cumulative impacts with respect to natural gas infrastructure would not be cumulatively considerable and, thus, would be less than significant.**

(3) Conclusion

Based on the analysis provided above, the Project's contribution to cumulative impacts related to energy consumption (i.e., electricity, natural gas) would not result in a cumulatively considerable effect related to available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. As such, the Project's impacts would not be cumulatively considerable; therefore, cumulative energy infrastructure impacts under Significance Threshold No. 2 are concluded to be less than significant.

5. Mitigation Measures

Project-level and cumulative impacts with regard to energy use and infrastructure would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance after Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

F. Geology and Soils

1. Introduction

This section of the Draft EIR provides an analysis of the Project's potential impacts with regard to geology and soils, including seismic impacts, the geologic stability of the Project Site, liquefaction, erosion, subsidence, and expansive soils. Potential impacts to unique geological features, including paleontological resources, are also addressed. The analysis is based on a review of California regulatory requirements, City of Los Angeles requirements, as well as on the following reports (refer to Appendix F and Appendix G of this Draft EIR):

- G** Geologic and Soils Engineering Exploration Report, Irvine Geotechnical, Inc., March 11, 2016.
- F-3** Paleontological Resources for the 3003 Runyon Canyon Project, Los Angeles County Museum of Natural History, August 3, 2018.

2. Environmental Setting

a. Regulatory Framework

(1) Geology and Soils

a. State of California

(i) Alquist-Priolo Earthquake Faulting Zoning Act

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act (formerly called the Alquist-Priolo Special Studies Zones Act) is to prohibit the location of most structures for human occupancy across the traces of active surface faults, which are faults that have ruptured the ground surface in the past 11,000 years, and to mitigate the hazard of fault rupture.¹ The act addresses only the hazard of surface fault rupture

¹ *California Public Resources Code, Sec. 2621 et seq. The Alquist-Priolo Special Studies Zones Act was signed into law in 1972. In 1994, it was renamed the Alquist-Priolo Earthquake Fault Zoning Act. The act has been amended 10 times.*

and is not directed toward other earthquake hazards. Under the act, the State Geologist (Chief of the CGS) is required to delineate “earthquake fault zones” (EFZs) along known active faults in California. The boundary of an EFZ is generally approximately 500 feet from major active faults, and 200 to 300 feet from well-defined minor faults. Cities and counties affected by EFZs must withhold development permits for certain construction projects proposed within the zones until geologic investigations demonstrate that the sites are not significantly threatened by surface displacement from future faulting. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault. The CGS Special Publication 42 defines an active fault as one that has “had surface displacement within Holocene time (about the last 11,000 years).”

(ii) Seismic Hazard Mapping Act

Under CGS’s Seismic Hazards Mapping Act, which was passed in 1990, seismic hazard zones are to be identified and mapped to assist local governments for planning and development purposes. The Seismic Hazards Mapping Act differs from the Alquist-Priolo Earthquake Fault Zoning Act in that it addresses non-surface fault rupture earthquake hazards, including strong ground shaking, liquefaction, landslides, other types of ground failure, and other hazards caused by earthquakes. The CGS provides guidance for evaluating and addressing earthquake-related hazards for projects within designated zones of required investigations.²

(iii) California Building Code

The State of California provides a minimum standard for building design through the California Building Code (CBC). The 2016 edition of the CBC is based on the 2015 International Building Code (IBC) as published by the International Code Council, together with other amendments provided in local/municipal codes and is adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in the California Occupational Safety and Health Administration (Cal-OSHA) regulations and in Section A33 of the CBC.

- Standard residential, commercial, and light industrial construction is governed by the CBC, to which cities and counties add amendments. The CBC, which is included in Title 24 of the California Administrative Code, is a compilation of three types of building standards from three different origins:

² California Geological Survey, “Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California,” 1997.

- 1) Those adopted by state agencies without change from building standards contained in national model codes (e.g., the IBC);
- 2) Those adopted and adapted from the national model code standards to meet California conditions (e.g., most of California is in Seismic Design Categories D and E);
- 3) Those authorized by the California legislature that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns (e.g., the specification of Certified Engineering Geologist rather than engineering geologist).

In addition, the CBC regulates excavation, foundations, and retaining walls; contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials; and regulates grading activities, including drainage and erosion control.

b. City of Los Angeles

(i) Los Angeles General Plan Safety Element

The City of Los Angeles General Plan Safety Element (Safety Element), which was adopted in 1996, addresses public safety risks due to natural disasters, including seismic events and geologic conditions; and sets forth guidance for emergency response during such disasters. The Safety Element also provides generalized maps of designated areas within the City that are considered susceptible to earthquake-induced hazards such as fault rupture and liquefaction.

Regarding assessment of seismic hazards, the Safety Element acknowledges that Section 2699 of the California Public Resources Code requires that a safety element take into account available seismic hazard maps prepared by the State Geologist pursuant to the Alquist-Priolo Earthquake Fault Zoning Act to assess seismic hazards. The Public Resources Code also requires that the State Geologist map active faults throughout the state. The Safety Element states that those maps which are applicable to the City of Los Angeles are incorporated into Exhibit A of the Safety Element. The Safety Element also states that local jurisdictions are required by the Seismic Hazards Mapping Act to require additional studies and appropriate mitigation measures for development projects in the areas identified as potential hazard areas by the state seismic hazard maps. In addition, the Safety Element states that as maps are released for Los Angeles, they will be utilized by the Los Angeles Department of Building and Safety (LADBS) to help identify areas where additional soils and geology

studies are needed for evaluation of hazards and imposition of appropriate mitigation measures prior to the issuance of building permits.

The Safety Element was approved in 1996 during an ongoing mapping effort by the State. Therefore, it contemplated that, once the entire set of maps for Los Angeles was complete, it would be used to revise the soils and geology exhibits of the Safety Element. The Safety Element acknowledged that it was based on available official maps at the time, and that exhibits in the Safety Element would be revised following receipt of reliable new information.

(ii) Los Angeles Building Code

The purpose of the Los Angeles Building Code (LABC) is to safeguard life, limb, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures erected or to be erected within the City, and by regulating certain grading operations. The LABC is codified in the LAMC, Chapter IX, Article I.

(2) Paleontological Resources

Paleontological resources include fossil remains, fossil localities, and formations that have produced fossil material in other nearby areas. Paleontological resources are limited, nonrenewable, sensitive scientific and educational resources, including fossils preserved either as impressions of soft (fleshy) or hard (skeletal) parts, mineralized remains of skeletons, tracks, or burrows; other trace fossils; coprolites (fossilized excrement); seeds or pollen; and other microfossils from terrestrial, aquatic, or aerial organisms.

Federal, state and local laws and regulations govern the treatment of paleontological resources. There are specific criteria for determining whether prehistoric or historic sites and objects are significant and/or protected by law. Federal and state significance criteria generally focus on the resource's integrity and uniqueness, its relationship to similar resources and its potential to contribute important information to scholarly research. The applicable laws and regulations that seek to mitigate impacts to significant paleontological resources are summarized in the following discussion.

a. National Historic Preservation Act of 1966

The National Historic Preservation Act established the National Register of Historic Places (National Register) to recognize resources associated with the country's history and heritage. Criteria for listing on the National Register are significance in American history, architecture, archaeology, engineering, and culture as present in

districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that are either: (a) associated with events that have made a significant contribution to the broad patterns of our history; (b) associated with the lives of persons significant in our past; (c) embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or (d) have yielded, or may be likely to yield, information important to history. Criterion (d) is usually reserved for either archaeological or paleontological resources.

b. California Register of Historic Places

The California Register of Historical Resources (California Register) was created to identify resources deemed worthy of preservation on a state level and was modeled closely after the National Register. The criteria are nearly identical to those of the National Register but focus on resources of statewide, rather than national, significance. The California Register automatically includes any resource listed, or formally designated as eligible for listing, on the National Register.

c. City of Los Angeles General Plan

The Conservation Element of the City of Los Angeles General Plan, Chapter II, Section 3, states that the City has a primary responsibility to protect paleontological sites pursuant to CEQA. As such, the City's policy is to identify and protect significant paleontological sites and/or resources known to exist or identified during land development, demolition, or property modification activities. If land development occurs within a potentially significant paleontological area, "the developer is required to contact a bona fide paleontologist to arrange for assessment of the potential impact and mitigation of potential disruption of or damage to the site." If significant resources are discovered, authorities must be notified and the designated paleontologist may cease construction activity in that portion of the Project Site. This cessation allows time for the assessment, removal or protection of the paleontological resources."

b. Existing Conditions

(1) Regional Geology

The Project Site consists of a partially graded and developed hillside lot on the southern flank of the Santa Monica Mountains, in the Runyon Canyon Urban Wilderness portion of the City of Los Angeles, California. It is located on the west side of Runyon Canyon Road, about half of a mile south of Mulholland Drive and about three-quarters of a mile west of the Hollywood Freeway (U.S. Route 101). The Project Site is

developed with a one-story single-family residence with a carport attached to the west side of the dwelling. A pool and outdoor barbecue area are present in the front (north) yard of the residence.

Bedrock underlying the Project Site and encountered in the test pits consists of sandstone and conglomerate of the Chico Formation and quartz diorite. The quartz diorite and conglomerate bedrock are well exposed in road cuts and crops out in steep slopes. The bedrock described is common to this area of the Santa Monica Mountains and the geologic structure is consistent with regional trends. The quartz diorite bedrock is generally massive and lacks significant structural planes.

(2) Regional Faulting and Seismicity

The Project Site is located within a seismically active region of Southern California. Recent examples of the seismic activity in the region include the 1987 Whittier Narrows earthquake and the 1994 Northridge earthquake. Further, seismic Hazard Zone delineations are based on correlation of a combination of factors, including: surface distribution of soil deposits; physical relief; depth to historic high groundwater; shear strength of the soils; and occurrence of past seismic deformation. The subject property is located within the United States Geologic Survey, Hollywood Quadrangle. Seismic hazards within the Hollywood Quadrangle were evaluated by the CGS in their report, "Seismic Hazard Zone Report for the Hollywood 7.5-minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report 026." According to the Seismic Hazard Zones Map, the Project Site is within a zone of required investigation for earthquake-induced landsliding; the Project Site is not, however, mapped within a zone of required investigation for liquefaction.

As discussed above, faults that have historically produced earthquakes or show evidence of movement within the Holocene (past 11,000 years) are considered "active faults." Active faults that are capable of causing large earthquakes may also cause ground rupture. The Alquist-Priolo Special Studies Zone Act of 1972 was enacted to protect structures from hazards associated with fault ground rupture. No known active faults cross the subject property and the Project Site is not located within an Alquist-Priolo Fault Rupture Hazard Study Zone.

The closest active faults that have ruptured the ground surface in Late Quaternary time are the Hollywood Fault, which is located approximately 2 miles south from the Project Site, and the Newport-Inglewood Fault, which is located further southwest of the Project Site.

In addition to the active source faults that have ruptured the ground surface, potentially active blind thrust faults are also believed to exist at depth in the region of the

Site, including the Upper Elysian Park Thrust and the Puente Hills Blind Thrusts. These blind thrust faults do not explicitly rupture the surface by definition but are inferred to exist at depth based on indirect information, such as seismicity and folded stratigraphy. Recognition of the existence of blind thrust faults in the region was largely triggered by the occurrence of the 1987 Whittier Narrows earthquake and reinforced by the 1994 Northridge earthquake, both of which occurred on blind thrust faults.

Other faults in the area have a potential to generate strong ground motions at the Project Site, such as the Raymond Fault, the Santa Monica fault, the Verdugo Fault, and the San Andreas Fault. While no known active faults have been mapped across the Project Site, and the Project Site is not located within an Alquist-Priolo Earthquake Fault Zone, the Project Site is located in the seismically active Southern California region, and therefore could be subjected to ground shaking in the event of an earthquake.

(3) Local Geology

a. Soil Conditions

As discussed in detail in the Geologic and Soils Engineering Exploration Report, fill, associated with previous Project Site grading, blankets portions of the Project Site to a maximum observed thickness of 1.5 feet in the vicinity of Test Pit 3. The fill may be thicker elsewhere onsite in areas not explored. The fill consists of sandy clay and clayey sand that is orange/brown, dark brown, moist, slightly porous to porous, firm/medium dense, and contains roots, rootlets, gravel, and cobbles to 6 inches in diameter.

Additionally, natural residual soil was encountered in 6 of the 8 Test Pits. The soil consists of silty sand and gravelly clay that is tan brown, dark brown, red orange-brown, dry to moist, loose to medium dense/stiff, and contains roots, rootlets, and gravel to 3-inches in diameter. The thickness of the soil observed is on the order of 6-inches.

Bedrock underlying the Project Site and encountered in the test pits consists of sandstone and conglomerate of the Chico Formation and quartz diorite as mapped by T.W. Dibblee.³ The quartz diorite and conglomerate bedrock are well exposed in road cuts and crops out in steep slopes.

b. Groundwater

Groundwater was not encountered during exploration, according to the Geologic and Soils Engineering Exploration Report. Seasonal fluctuations in groundwater levels

³ *Geologic Map of the Santa Monica Mountains and Vicinity, CD Compilation, 2001.*

may occur due to variations in climate, irrigation, and other factors not evident at the time of the exploration. Fluctuations in groundwater levels may also occur across the Project Site. According to the seismic hazard zone report for the Hollywood Quadrangle, historically highest groundwater in the vicinity of the Site may be around 70 to 80 feet below the ground surface. Note that groundwater levels can fluctuate over time depending on seasonal rainfall and other influences. Also, it should be recognized that there is a potential for perched water seepage to occur locally in sandy zones of the alluvium deposits.

c. Liquefaction

Liquefaction potential is greatest where the groundwater level is shallow, and submerged loose, fine sands occur within a depth of about 15 meters (50 feet) or less below the ground surface. Liquefaction potential decreases as grain size and clay and gravel content increase. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases.

According to the California Division of Mines and Geology (CDMG) Seismic Hazard Zones Map of the Hollywood Quadrangle (2014) and the Geologic and Soils Engineering Exploration Report, the Project Site is not within an area of required liquefaction investigation. This classification is consistent with the observations in the borings completed at the Project Site, which indicate that the soils beneath the Site are predominantly dense to very dense sands with layers of very stiff to hard clays and silts.

d. Subsidence

Ground surface subsidence generally results from the extraction of fluids or gas from the subsurface that can result in a gradual lowering of the overlying ground surface. Subsidence can also occur when subsurface peat deposits oxidize and undergo volume loss. As there are no known ongoing extractions of oil or water that would lead to subsidence at the Project Site, and the subsurface soils are not known to contain significant quantities of peat, the potential for subsidence at the Project Site is considered remote.

e. Expansive Soils

According to the Geologic and Soils Engineering Exploration Report, the on-site soils are non-expansive. In addition, the Project would be designed and constructed in conformance with the City's current Building Code requirements.

f. Other Geologic Conditions

(i) Corrosive Soils

According to the Geologic and Soils Engineering Exploration Report for the Project (refer to Appendix G), soil samples were tested for electrical resistivity, pH, sulfate content, and chloride content. These test results were used to evaluate the corrosivity potential of the soil on underground improvements for the Project. As discussed, the pH of the soils is near neutral and not a factor in corrosion. The chloride content is low on the Project Site and not a factor in design. Thus, the sulfate content is negligible and not a factor in concrete design. Overall, the resistivity in the test samples indicate that the soils are corrosive to ferrous metals.

(ii) Oil Wells

The Project Site is not located within a City-designated oil field or oil drilling area and there are no oil wells located on the Project Site.⁴

(4) Paleontological Resources

According to a records search prepared by the Los Angeles County Museum of Natural History (included in Appendix F-3 of this Draft EIR), there are no vertebrate fossil localities that lie directly within the Project Site boundaries. According to the Museum of Natural History, the southern portion of the Project area has exposures of plutonic igneous rocks that will not contain any recognizable fossils, while the northern portion of the Project area has exposures of a marine late Cretaceous rock unit that has been called the Chico Formation, the Tuna Canyon Formation, or even an unnamed rock unit. It is the opinion of the Museum of Natural History that excavations in the igneous rocks exposed in the southern portion of the Project area will not encounter any recognizable fossils, while excavations in the marine late Cretaceous rocks in the northern portion of the Project area may encounter vertebrate fossils.

3. Project Impacts

a. Thresholds of Significance

In 2015, the California Supreme Court in *California Building Industry Assn. v. Bay Area Air Quality Management District* (“*CBIA v. BAAQMD*”) held that CEQA generally

⁴ State of California, Department of Conservation, Division of Oil, Gas & Geothermal Resources Well Finder: <https://maps.conservation.ca.gov/doggr/index.html#close>, accessed July 2018.

does not require a lead agency to consider the impacts of the existing environment on the future residents or users of the project.⁵ The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project.

In accordance with Appendix G of the State CEQA Guidelines and the *CBIA v. BAAQMD* decision, the Project would have a significant impact related to geology and soils if it results in any of the following impacts to future residents or users on the Project Site:

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

- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault.. Refer to Division of Mines and Geology Special Publication 42;***
- ii. Strong seismic ground shaking;***
- iii. Seismic-related ground failure, including liquefaction; or***
- iv. Landslides;***

Threshold b) Result in substantial soil erosion or the loss of topsoil; or

Threshold 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; or

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

⁵ *California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, Case No. S213478.*

Threshold 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 wastewater; or*

Threshold (f): *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.*

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The L.A. CEQA Thresholds Guide (Thresholds Guide) identifies the following criteria for geology and soils impacts.

Geologic Hazards

- *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 which would not be contained or controlled on-site.*

Paleontological Resources

- *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.*

b. Methodology

To evaluate potential impacts relative to geology and soils, a Geologic and Soils Engineering Exploration Report was prepared by Irvine Geotechnical, Inc., as provided in Appendix G, of this Draft EIR. The Geologic and Soils Engineering Exploration Report included field exploration, drilling borings, laboratory testing of soils samples obtained from the borings, groundwater monitoring, field permeability testing, and performing geophysical surveys. A final design-level geotechnical investigation would be prepared, reviewed, and approved by LADBS prior to issuance of building permits to construct the Project.

To evaluate potential impacts related to paleontological resources, a records search was conducted with the Los Angeles County Museum of Natural History (included in Appendix F-3 of this Draft EIR).

c. Project Design Features

No specific Project Design Features are proposed with regards to geology and soils.

d. Analysis of Project Impacts

Threshold a.i) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the 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?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), no known active faults cross or are directed toward the Project Site, nor is the Site located in a currently established Alquist-Priolo (AP) Zone of Required Investigation. The closest established AP Zones are along the Hollywood Fault and the Newport-Inglewood Fault, based on a review of the Alquist-Priolo Special Studies Zone for the Hollywood Quadrangle (CGS, 2014). Thus, the potential for fault surface rupture at the Project Site is considered low, and the Project would not exacerbate existing environmental conditions related to fault rupture. **Therefore, no direct or indirect impact related to the surface rupture of a known earthquake fault would occur.**

Threshold a.ii) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), Southern California is an active seismic region (Uniform Building Code (UBC) Seismic Zone IV). Although the Project Site is not within an Alquist-Priolo Earthquake Fault Zone, the Project Site is susceptible to ground shaking during a seismic event. The main seismic hazard affecting the Project Site is moderate to strong ground shaking. However, the Project Applicant would be required to design and construct the Project in conformance to the most recently adopted CBC design parameters, the UBC, and the City Building Codes with respect to new construction. Adherence to current building codes and engineering practices would

ensure that the Project is designed to withstand ground shaking as a result of an earthquake and would ensure that the Project would not expose people, property, or infrastructure to seismically-induced ground shaking hazards that are greater than the average risk associated with locations in the Southern California region. The Project would not exacerbate existing environmental conditions related to ground shaking. **As such, no direct or indirect impacts related to strong seismic ground shaking would occur.**

Threshold a.iii) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), the Project Site is not within an area of required liquefaction investigation. This classification is consistent with the observations in the borings completed at the Project Site, which indicate that the soils beneath the Site are predominantly dense to very dense sands with layers of very stiff to hard clays and silts. In addition, groundwater was not encountered during drilling of the borings at the Project Site. Thus, the potential for liquefaction and the associated ground deformation beneath the Project Site is considered to be low, and the Project would not exacerbate existing environmental conditions related to liquefaction. **Therefore, no direct or indirect impacts from seismic-related ground failure would occur.**

Threshold a.iv) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The Project Site is identified by ZIMAS as being within a landslide hazard zone. However, during field explorations conducted as part of the preparation of the geotechnical report, there was no evidence of deep-seated failure or other types of slope failure observed. Further, according to the Seismic Hazards Zones Map, the Project Site is within a zone of required investigation for earthquake-induced landsliding, which requires a site investigation by a certified engineering geologist with expertise in geotechnical engineering. The seismic stability of the Project Site was therefore calculated in conformance with Southern California Earthquake Center (SCEC) screening procedures, and the analysis showed that the Project Site and existing slopes

would be grossly stable under anticipated seismic conditions.⁶ Thus, with compliance with general building standards including those contained in the UBC, CBC, and City Building Codes that are designed to protect public safety, the Project would not exacerbate existing environmental conditions related to landslides. **Therefore, potential impacts associated with landslides would be less than significant.**

Threshold b) Would the Project result in substantial soil erosion or the loss of topsoil?

During the Project's construction phase, activities such as excavation, grading, and Site preparation could leave soils at the Project Site susceptible to soil erosion or loss of topsoil. The Project Site sits on the crest of a south-trending secondary ridge. The Project Site configuration consists of a level building pad on the east-central portion and descending slopes to the west, south, and east toward Runyon Canyon Road. Slopes as high as 340 vertical feet descend to the east and south, and as high as 175 vertical feet descend to the east and west. Physical relief within the property limits is approximately 160 feet.

During construction, the Project Applicant would be required to comply with SCAQMD Rule 403 – Fugitive Dust to minimize wind and water-borne erosion at the Site, as well as prepare and implement a Stormwater Pollution Prevention Plan (SWPPP), in accordance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be implemented during Project construction. The SWPPP would include best management practices (BMPs) and erosion control measures to prevent pollution in storm water discharge.

Typical BMPs that could be used during construction include good-housekeeping practices (e.g., proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by the City for compliance with the City's Development Best Management Practices Handbook, Part A, Construction Activities. Additionally, all Project construction activities are required to comply with the City's grading permit regulations, which require the implementation of

⁶ *Geologic and Soils Engineering Exploration Report, prepared by Irvine Geotechnical, March 11, 2016. Included as Appendix G of this Draft EIR, see page 11.*

grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized.

Through compliance with these existing regulations, the Project would not result in any significant impacts related to soil erosion during the construction phase.

Additionally, during the Project's operational phase, a greater portion of the Project Site would be developed with impervious surfaces, which would reduce soil erosion potential, compared to existing conditions. Existing surface drainage for the building pad is by sheetflow runoff down the contours of the land toward Runyon Canyon Road to the northeast. Roof drainage consists of typical peaked roofing that directs drainage to gutters and downspouts that outlet to grade. Drainage from the Project Site then flows in a southern direction down the Santa Monica Mountains and towards storm drains located further down the mountain. The Project's inclusion of a green roof would serve to minimize the amount of roof drainage from the Project, and drainage from the Project Site would continue to flow towards storm drains located further down the mountain after construction of the Project.

Further, drainage from the Project would not be allowed to pond on the development pad or against any foundation or retaining wall, and would not be allowed to flow uncontrolled over any descending slope. Finally, because the Project Site is within a designated hillside area and due to nearby slopes, onsite infiltration of surface runoff is not considered feasible.

As the runoff from the Project would continue to flow towards existing storm drains, and as the Project would follow the drainage recommendations contained in the geotechnical report, the Project would not exacerbate existing environmental conditions related to soil erosion.

Thus, Project impacts related to soil erosion or the loss of topsoil would be less than significant.

Threshold c) Would the Project 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?

Ground surface subsidence generally results from the extraction of fluids or gas from the subsurface that can result in a gradual lowering of the overlying ground surface. Subsidence can also occur when subsurface peat deposits oxidize and undergo volume loss. As there are no known ongoing extractions of oil or water that

would lead to subsidence at the Project Site, and the subsurface soils are not known to contain significant quantities of peat, the potential for subsidence at the Project Site is considered remote. According to the California Division of Mines and Geology (CDMG) Seismic Hazard Zones Map of the Hollywood Quadrangle (2014) and the Geologic and Soils Engineering Exploration Report, the Project Site is not within an area of required liquefaction investigation.⁷ The soils at the Project Site would also not be subject to lateral spreading, which involves the lateral movement of gently to steeply sloping, saturated soil deposits caused by earthquake-induced liquefaction.

Further, as discussed in the geotechnical report, the recommended bearing material for the Project is bedrock, which was encountered within 1 to 3 feet of the existing grade.⁸ The existing fill and soil would be removed, and the basement level of the Project is expected to penetrate the surficial materials to expose bedrock. According to the geotechnical report, the bedrock conditions at the Project Site are favorable for the gross stability of both the Project and the Project Site.⁹ In addition, during construction, cut slopes in bedrock along Runyon Canyon Road (hiking trail) that are steeper than 45 degrees should be trimmed to 45 degrees or would be supported with retaining walls to ensure the stability of the slope. As stated at the end of this section, a final design-level geotechnical investigation would be prepared, reviewed, and approved by LADBS prior to issuance of building permits to construct the Project. The Project would be required to follow all requirements contained in the final-design level geotechnical investigation. The Project's compliance with the recommendations contained in the geotechnical report would ensure that the Project would not exacerbate existing environmental conditions related to subsidence, landsliding, lateral spreading or other types of ground instabilities. **Therefore, Project impacts related to unstable soils and geologic units would be less than significant.**

Threshold d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

According to the Geologic and Soils Engineering Exploration Report prepared for the Project (refer to Appendix G), borings were subjected to Expansion Index testing to evaluate the expansive potential. The results of the testing indicate the soils at the

⁷ *Ibid. at page 10.*

⁸ *Ibid. at page 12.*

⁹ *Ibid. at page 7.*

Project Site exhibit “low” expansion potential. In addition, the Project would be designed and constructed in conformance with the City’s current Building Code requirements. Thus, the Project would not be constructed on expansive soil and would not create a substantial risk to individuals and/or property. Based on the above, development of the Project would not cause or exacerbate geologic hazards. The Project would not exacerbate existing environmental conditions related to expansive soils. **Therefore, direct and indirect Project impacts related to expansive soils would be less than significant.**

Threshold e) Would the Project 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 wastewater?

The Project Site is located in the City of Los Angeles; however, the Project Site is not serviced by existing sewers. As part of the Project, a private subsurface disposal system is being proposed, pending an evaluation of the existing sewer system in and around the Project Site. According to the Geologic and Soils Engineering Exploration Report contained in Appendix G of this Draft EIR, seepage pits can be placed in the upper portion of the soils to avoid percolation into surficial materials. Potential locations for the seepage pits are shown in Section C-C attached to the geotechnical report. The system that serves the existing building on the Project Site currently has two seepage pits in the upper portion of the soils that are connected and one new seepage pit that has not been used but that could serve the proposed single-family residence. Thus, the use of a private sewage disposal system on the Project Site would not adversely affect the stability of the Project Site or adjoining properties. **Therefore, a less than significant impact would occur.**

Threshold (f): Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The Project Site is located in an urbanized area of the Hollywood Community Plan Area of the City of Los Angeles, and a portion of the Project Site has been disturbed by past development activities. However, the Project includes subgrade preparation and excavation for the proposed single-family structure. As discussed above, according to a records search prepared by the Los Angeles County Museum of Natural History (included in Appendix F-3 of this Draft EIR), there are no vertebrate fossil localities that lie directly within the Project Site boundaries. According to the Museum of Natural History, the southern portion of the Project area has exposures of plutonic igneous rocks that will not contain any recognizable fossils, while the northern portion of the Project area has exposures of a marine late Cretaceous rock unit that has been called the Chico Formation, the Tuna Canyon Formation, or even an unnamed

rock unit. It is the opinion of the Museum of Natural History that excavations in the igneous rocks exposed in the southern portion of the Project area will not encounter any recognizable fossils, while excavations in the marine late Cretaceous rocks in the northern portion of the Project area may encounter vertebrate fossils. **As such, it is conservatively concluded that the Project has the potential to cause a significant impact to paleontological resources and mitigation is required. With implementation of Mitigation Measure GEO-MM-1, impacts with respect to paleontological resources would be less than significant.**

a. Mitigation Measure

GEO-MM-1 During the construction phase and prior to the issuance of building permits, the Applicant shall retain an independent Construction Monitor, who shall be responsible for coordinating with a certified paleontologist to implement and enforce the following:

1. If any paleontological materials are encountered during the course of Project development, the Construction Monitor, in accordance with GEO-MM-1 shall coordinate with the services of a paleontologist, and all further development activity shall halt and the following shall be undertaken:
 - a. 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.
 - b. In the event of a discovery, or when requested by the Project paleontologist, the contractor shall divert, direct, or temporarily halt ground disturbing activities in an area in order to evaluate potentially significant paleontological resources. The paleontologist shall determine the location, the time frame, and the extent to which any monitoring of earthmoving activities shall be required. The found deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code Section 21083.2. The Construction Monitor shall also prepare and submit documentation of the Applicant's compliance with Mitigation Measure GEO-MM-1 during construction every 30 days in a form satisfactory to the Department of City Planning. The documentation must be signed by the Applicant and Construction Monitor and be included as part of the Applicant's

Compliance Report. The Construction Monitor shall be obligated to report to the Enforcement Agency any non-compliance with the mitigation measure within two businesses days if the Applicant does not correct the non-compliance within a reasonable time of notification to the Applicant by the Construction Monitor or if the non-compliance is repeated. Such non-compliance shall be appropriately addressed by the Enforcement Agency.

2. The paleontologist's survey, study or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the resource.
3. The Applicant shall comply with the recommendations of the evaluating paleontologist, as contained in the survey, study or report.
4. At the conclusion of monitoring activities, the Project paleontologist shall prepare a signed statement indicating the first and last dates monitoring activities took place, and submit it to the Department of City Planning, for retention in the administrative file for Case No. ENV-2016-4180-EIR. Copies of the paleontological survey, study, or report shall also be submitted to the Los Angeles County Natural History Museum.
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.

4. Cumulative Impacts

Geotechnical impacts related to future development in the City involve hazards related to site-specific soil conditions, erosion, and ground-shaking during earthquakes. There are five related projects located within proximity to the Project Site. The impacts on each site are specific to that site and its users and would not be in common or contribute to (or shared with, in an additive sense) the impacts on other sites. In addition, development on each site is subject to uniform site development and construction standards, including those contained in the UBC, CBC, and City Building Codes that are designed to protect public safety. In addition, in the event that paleontological resources are uncovered, each related project would be required to comply with regulatory requirements to ensure the proper treatment of such resources. **Therefore, the Project would not contribute to any significant cumulative geology and soils impacts.**

5. Mitigation Measures

A final design-level geotechnical investigation would be prepared, reviewed, and approved by LADBS prior to issuance of building permits to construct the Project. The Project would be required to follow all requirements contained in the final-design level geotechnical investigation. In addition, the Project would implement GEO-MM-1, provided above under Threshold f).

6. Level of Significance After Mitigation

Mitigation Measure GEO-MM-1 shall be enforced during the construction phase of the Project. The Construction Monitor shall be responsible for implementing Mitigation Measure GEO-MM-1 and shall be obligated to provide certification, as identified below, to the appropriate monitoring agency and the appropriate enforcement agency that construction monitoring and coordination with a certified paleontologist has been implemented. The Construction Monitor shall maintain records demonstrating compliance with the mitigation measure, and submit compliance reports as described below.

Through compliance with the requirements contained in GEO-MM-1, potential Project impacts to unknown paleontological resources or sites, or unique geologic features would be less than significant. With compliance with State laws and City regulatory requirements and standards, all other Project-level and cumulative impacts with regard to geology and soils would be less than significant.

IV. Environmental Impact Analysis

G. Greenhouse Gas Emissions

1. Introduction

This section addresses the Project's impact on global climate change from both short-term construction activities and long-term operation of the improvements to the Project Site. The information and analysis in this section is based primarily on the following technical modeling (refer to Appendix D):

D Air Quality and Greenhouse Gas Emissions Technical Modeling, DKA Planning, July 2018.

The global nature of climate change creates unique challenges for assessing an individual project's climate change impact under CEQA, which focuses on cause and effect. When compared to the cumulative inventory of greenhouse gas (GHG) emissions across the globe, a single project's impact will be negligible.

Climate change analyses are also unique because emitting CO₂ into the atmosphere is not itself an adverse environmental effect. It is the increased concentration of CO₂ in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Although it is possible to estimate a project's incremental contribution of CO₂ into the atmosphere, it is typically not possible to determine whether or how an individual project's relatively small incremental contribution might translate into physical effects on the environment. Nevertheless, both short-term impacts occurring during construction and long-term effects related to the ongoing operation of the Project are discussed in this section.

2. Environmental Setting

Various gases in the Earth's atmosphere, classified as atmospheric GHG emissions, play a critical role in determining the Earth's surface temperature. Solar radiation entering Earth's atmosphere is absorbed by the Earth's surface. When the Earth emits this radiation back toward space, the radiation changes from high-frequency solar radiation to lower-frequency infrared radiation. GHGs in the atmosphere are transparent to solar radiation but absorb infrared radiation. As a result, radiation that otherwise would escape back into space is now retained, warming the atmosphere. This phenomenon is known as the greenhouse effect.

GHG emissions that contribute to the greenhouse effect include:

- Carbon Dioxide (CO₂) is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal), and wood and wood products are burned. CO₂ emissions from motor vehicles occur during operation of vehicles and operation of air conditioning systems. CO₂ comprises over 80 percent of GHG emissions in California.¹
- Methane (CH₄) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from the decomposition of organic waste in solid waste landfills, raising livestock, natural gas and petroleum systems, stationary and mobile combustion, and wastewater treatment. Methane makes up 8.3 percent of all GHG emissions, and mobile sources and general fuel combustion represent 0.69 percent of overall methane emissions.²
- Nitrous Oxide (N₂O) is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. Mobile sources represent about 12 percent of N₂O emissions.³ N₂O emissions from motor vehicles generally occur directly from operation of vehicles.
- Hydrofluorocarbons (HFCs) are one of several high global warming potential (GWP) gases that are not naturally occurring and are generated from industrial processes. HFC (refrigerant) emissions from vehicle air conditioning systems occur due to leakage, losses during recharging, or release from scrapping vehicles at end of their useful life.
- Perfluorocarbons (PFCs) are another high GWP gas that are not naturally occurring and are generated in a variety of industrial processes. Emissions of PFCs are generally negligible from motor vehicles.
- Sulfur Hexafluoride (SF₆) is another high GWP gas that is not naturally occurring and is generated in a variety of industrial processes. Emissions of SF₆ is generally negligible from motor vehicles.

¹ California Environmental Protection Agency, *First Update to the Climate Change Scoping Plan, May 2014.*

² California Environmental Protection Agency, *First Update to the Climate Change Scoping Plan, May 2014.*

³ United States Energy Information Administration, *Emissions of Greenhouse Gases in the U.S., March 2011.*

For most non-industrial development projects, motor vehicles make up the bulk of GHG emissions, particularly carbon dioxide, methane, nitrous oxide, and HFCs.⁴ As shown on Table IV.G-1, the other GHGs are less abundant but have higher Global Warming Potential (GWP) than CO₂, meaning that they cause more global warming per unit mass. To account for this higher potential, emissions of other GHGs are frequently expressed in the equivalent mass of CO₂, denoted as CO₂e. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted. High GWP gases such as HFCs, PFCs, and SF₆ are the most heat-absorbent.

**Table IV.G-1
Global Warming Potential for Greenhouse Gases**

Greenhouse Gas	Global Warming Potential (CO₂e)
Carbon Dioxide (CO ₂)	1
Methane (CH ₄)	28
Nitrous Oxide (N ₂ O)	265
Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs)	7,000 – 11,000
Sulfur Hexafluoride (SF ₆)	23,500
<i>Note: Global warming potential measures how much heat a GHG traps in the atmosphere, in this case, over a 100-year period.</i>	
<i>Source: California Air Resources Board, First Update to the Climate Change Scoping Plan. May 2014.</i>	

The effects of increasing global temperature are far-reaching and difficult to quantify. If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a California Energy Commission report, the snowpack portion of the supply could potentially decline by 70 to 90 percent by the end of the 21st century. This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this moisture would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system. Sea level has risen

⁴ California Air Resources Board, *Climate Change Emission Control Regulations, 2004.*

approximately seven inches during the last century, and it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels.⁵ If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion, and disruption of wetlands. As the existing climate throughout California changes over time, mass migration of species, or worse, failure of species to migrate in time to adapt to the perturbations in climate, could also result.

While efforts to reduce the rate of GHG emissions continue, the state has developed a strategy to adapt public infrastructure to the impacts of climate change. The 2009 California Climate Adaptation Strategy (Strategy) analyzes risks and vulnerabilities and proposes strategies to reduce risks. The Strategy begins what will be an ongoing process of adaptation, as directed by Governor Schwarzenegger's Executive Order S-13-08. The Strategy analyzes two components of climate change: (1) projecting the amount of climate change that may occur using computer-based global climate models and (2) assessing the natural or human systems' abilities to cope with and adapt to change by examining past experience with climate variability and extrapolating from this to understand how the systems may respond to the additional impact of climate change. The Strategy's key preliminary adaptation recommendations include:

- Appointment of a Climate Adaptation Advisory Panel;
- Improved water management in anticipation of reduced water supplies, including a 20 percent reduction in per capita water use by 2020 from 2011 levels;
- Consideration of project alternatives that avoid significant new development in areas that cannot be adequately protected from flooding, wildfire and erosion due to climate change;
- Preparation of agency-specific adaptation plans, guidance or criteria by September 2010;
- Consideration of climate change impacts for all significant state projects;
- Assessment of climate change impacts on emergency preparedness;
- Identification of key habitats and development of plans to minimize adverse effects from climate change;

⁵ California Energy Commission, *The Impacts of Sea Level Rise on the San Francisco Bay*, July 2012.

- Development of guidance by the California Department of Public Health by September 2010 for use by local health departments to assess adaptation strategies;
- Amendment of General Plans and Local Coastal Plans to address climate change impacts and to develop local risk reduction strategies; and
- Inclusion of climate change impact information into fire program planning by state fire fighting agencies.

a. Regulatory Framework

(1) International

a. Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States (the “U.S.”) joined other countries around the world in signing the United Nations’ Framework Convention on Climate Change (the “UNFCCC”) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHG emissions in the U.S. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

On December 12, 2015, a Conference of the Parties to the UNFCCC and the 11th session of the Kyoto Protocol negotiated an agreement in Paris that would keep the rise of temperature below 2 degrees Celsius. While 186 countries published their action plans detailing how they plan to reduce their GHG emissions, these reductions would still result in up to 3 degrees Celsius of global warming. The Paris agreement asks all countries to review their plans every five years from 2020 and acknowledges that \$100 billion is needed each year to enable countries to adapt to climate change. The agreement was signed into law on April 22, 2016, and will be enforced when 55 countries that account for 55 percent of global emissions have signed on. However, in May of 2017, President Donald Trump announced that the U.S. would withdraw from the agreement.

b. The Western Regional Climate Action Initiative

The Western Regional Climate Action Initiative (WCI) is a partnership among seven states, including California, and four Canadian provinces to implement a regional, economy-wide cap-and-trade system to reduce global warming pollution. The WCI will cap GHG emissions from the region’s electricity, industrial, and transportation sectors

with the goal to reduce the heat trapping emissions that cause global warming to 15 percent below 2005 levels by 2020. When the WCI adopted this goal in 2007, it estimated that this would require 2007 levels to be reduced worldwide between 50 percent and 85 percent by 2050. California is working closely with the other states and provinces to design a regional GHG reduction program that includes a cap-and-trade approach. The California Air Resources Board's (CARB) planned cap and-trade program, discussed below, is also intended to link California and the other member states and Canadian provinces.

(2) Federal

The United States Environmental Protection Agency (U.S. EPA) has historically not regulated GHGs because it determined the Clean Air Act did not authorize it to regulate emissions that addressed climate change. In 2007, the U.S. Supreme Court found that GHGs could be considered within the Clean Air Act's definition of a pollutant.⁶ In December 2009, U.S. EPA issued an endangerment finding for GHGs under the Clean Air Act, setting the stage for future regulation. In September 2009, the National Highway Traffic Safety Administration (the "NHTSA") and U.S. EPA announced a joint rule that would tie fuel economy to GHG emission reduction requirements. This could equate to an overall light-duty vehicle fleet average fuel economy of 35.5 miles per gallon in 2016.

In June 2013, President Obama announced a Climate Action Plan that calls for a number of initiatives, including funding \$8 billion in advanced energy efficiency projects, calls for federal agencies to develop new emission standards for power plants, investments in renewable energy sources, calling for adaptation programs, and leading international efforts to address climate change. In September 2013, U.S. EPA announced its first steps to implement a portion of the Obama Climate Action Plan by proposing carbon pollution standards for new power plants.

a. Vehicle Standards

Other regulations have been adopted to address vehicle standards including the U.S. EPA and NHTSA joint rulemaking for vehicle standards. NHSTA intends to set standards for model years 2022-2025 in a future rulemaking.⁷ In addition to the regulations applicable to cars and light-duty trucks, on August 9, 2011, the U.S. EPA

⁶ *Massachusetts v. Environmental Protection Agency et al* [127 S. Ct. 1438 (2007)].

⁷ *NHSTA. 2012. 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards. 77 Fed. Reg. 62624.*

and the NHTSA announced fuel economy and GHG emissions standards for medium- and heavy-duty trucks that applies to vehicles from model year 2014–2018.⁸ Subsequent regulations for heavy-duty trucks were finalized in October 2016 for model years 2021-2027.⁹

b. Energy Independence and Security Act

Among other key measures, the Energy Independence and Security Act (EISA) would do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile:

- 1) Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- 2) Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- 3) While superseded by NHTSA and U.S. EPA actions described above, EISA also set miles per gallon targets for cars and light trucks and directed the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

⁸ U.S. EPA Office of Transportation and Air Quality. 2011. *EPA and NHTSA Adopt First-Ever Program to Reduce Greenhouse Gas Emissions and Improve Fuel Efficiency of Medium-and Heavy-Duty Vehicles*. Available at: <http://www.epa.gov/otaq/climate/documents/420f11031.pdf>.

⁹ U.S. EPA. <https://www.epa.gov/newsreleases/epa-and-dot-finalize-greenhouse-gas-and-fuel-efficiency-standards-heavy-duty-trucks-0>.

(3) State

a. Executive Orders S-3-05 and B-30-15

On June 1, 2005, Governor Schwarzenegger issued Executive Order S-3-05, which 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 California Environmental Protection Agency formed a Climate Action Team that recommended strategies that can be implemented by State agencies to meet GHG emissions targets. The Team reported several recommendations and strategies for reducing GHG emissions and reaching the targets established in the Executive Order.¹⁰ Furthermore, the report provided to Governor Schwarzenegger in 2006 indicated that smart land use and increased transit availability should be a priority in the State of California.¹¹ According to the California Climate Action Team, smart land use is an umbrella term for strategies that integrate transportation and land-use decisions. Such strategies generally encourage jobs/housing proximity, promote transit-oriented development (TOD), and encourage high-density residential/commercial development along transit corridors. These strategies develop more efficient land-use patterns within each jurisdiction or region to match population increases, workforce, and socioeconomic needs for the full spectrum of the population.

On April 29, 2015, Governor Brown issued an executive order (Executive Order B-30-15) setting a statewide GHG reduction target of 40 percent below 1990 levels by 2030. This action aligns the state's GHG targets with those set in October 2014 by the European Union and is intended to help the state meet its target of reducing GHG emissions 80 percent below 1990 levels by 2050. The measure calls on state agencies to implement measures accordingly and directs CARB to update the Climate Change Scoping Plan.

A recent study shows that the state's existing and proposed regulatory framework will allow the state to reduce its GHG emissions level to 40 percent below 1990 levels by 2030 (consistent with Executive Order B-30-15), and to 60 percent below 1990 levels by 2050. Even though this study did not provide an exact regulatory and technological roadmap to achieve the 2030 and 2050 goals, it demonstrated that

¹⁰ California Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006*.

¹¹ California Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the Legislature, March 2006, p. 57*.

various combinations of policies could allow the statewide emissions level to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the state to meet the 2030 and 2050 targets.¹²

b. Senate Bill 32

In September 2016, Governor Jerry Brown signed into law a measure that extends AB 32 another ten years to 2030 and increases the State's objectives. SB 32 calls on Statewide reductions in GHG 40 percent below 1990 levels by 2030, codifying into law targets set by Executive Order B-30-15. Further regulatory actions by the State are forthcoming that will further challenge communities to reduce GHG emissions in the future.

c. Assembly Bill 1493 (Pavley I)

California has adopted a series of laws and programs to reduce emissions of GHGs into the atmosphere. Assembly Bill (AB) 1493 by then-Assemblymember Fran Pavley was enacted in September 2003 and requires regulations to achieve "the maximum feasible reduction of greenhouse gases" emitted by vehicles used for personal transportation.

d. Executive Order S-1-07 (California Low Carbon Fuel Standard)

Executive Order S-1-07, the Low Carbon Fuel Standard (LCFS), which was issued on January 18, 2007, requires a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. Regulatory proceedings and implementation of the LCFS have been directed to CARB. The LCFS has been identified by CARB as a discrete early action item in the adopted *Climate Change Scoping Plan*. CARB expects the LCFS to achieve the minimum 10-percent reduction goal. CARB released a draft version of the LCFS in October 2008. The final regulation was approved by the Office of Administrative Law and filed with the Secretary of State on January 12, 2010, and the LCFS became effective on the same day.

¹² Greenblatt, Jeffrey, *Energy Policy*, "Modeling California Impacts on Greenhouse Gas Emissions" (Vol. 78, pp. 158-172).

e. Advanced Clean Cars Regulations

In 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for model years 2015-2025.¹³ The components of the ACC program include the Low-Emission Vehicle (LEV) regulations that reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles, and the Zero Emission Vehicle (ZEV) regulation, which requires manufacturers to produce an increasing number of pure ZEVs (such as battery electric and fuel cell electric vehicles), with provisions to also produce plug-in hybrid electric vehicles (PHEV) in the 2018 through 2025 model years. In March 2017, CARB voted unanimously to continue with the vehicle GHG emission standards and the ZEV program for cars and light trucks sold in California through 2025.

f. AB 32 and 2017 CARB Climate Change Scoping Plan

In September 2006, AB 32 was signed into law by Governor Schwarzenegger, focusing on achieving GHG emissions equivalent to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. It mandates that 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.

CARB developed a Scoping Plan (CARB Scoping Plan) that contains strategies to achieve the 2020 emissions cap. This Scoping Plan, which was developed by CARB in coordination with the Climate Action Team, was first adopted in October 2008 (the “2008 Scoping Plan”). The 2008 Scoping Plan proposed a comprehensive set of actions designed to reduce overall GHG emissions in California, improve the environment, reduce the state’s dependence on oil, diversify the state’s energy sources, save energy, create new jobs, and enhance public health. Moreover, it accommodated the State’s projected population growth and expressly called for coordinated planning of growth, including the location of dense residential projects near transportation infrastructure, including public transit.

An important component of the plan is a cap-and-trade program covering 85 percent of the state’s emissions. As required by AB 32, CARB must update its Scoping Plan every five years to ensure that California remains on the path toward a low carbon

¹³ CARB, *California’s Advanced Clean Cars Program*, www.arb.ca.gov/msprog/acc/acc.htm, accessed June 16, 2018.

future. In order to assess the scope of reductions needed to return to 1990 emissions levels, CARB first estimated the 2020 business-as-usual (BAU) GHG emissions in the 2008 Scoping Plan. These are the GHG emissions that would be expected to result if there were no GHG emissions reduction measures, and as if the state were to proceed on its pre-AB 32 GHG emissions track. After estimating that statewide 2020 BAU GHG emissions would be 596 metric tons, the 2008 Scoping Plan then identified recommended GHG emissions reduction measures that would reduce BAU GHG emissions by approximately 174 metric tons (an approximately 28.4 percent reduction) by 2020.

CARB adopted a Scoping Plan in November 2017 to reflect targets set by Executive Order B-30-15 and codified by Senate Bill (SB) 32. This update calls for strategies that cap the State's GHG emissions at 260 MMTCO₂e by 2030, which would represent a 40 percent reduction from 1990 levels. As shown on Table IV.G-2, these reductions are to come from a variety of sectors, including energy, transportation, high-global warming potential sources, waste, and the state's cap-and-trade emissions program. Nearly all reductions are to come from sources that are controlled at the statewide level by state agencies, including the Air Resources Board, Public Utilities Commission, High Speed Rail Authority, and California Energy Commission. The few actions that are directly or indirectly associated with local government control are in the transportation sector.

**Table IV.G-2
Statewide Emission Reductions Needed to Meet SB 32 Objectives in 2030**

Sector	1990 Inventory (Million Metric Tons of CO ₂ e)	Percent Change from 1990 (MMTCO ₂ e)	Summary of Recommended Actions
Electric Power	108	-72 to -51	Reduce state's electric and energy utility emissions, reduce emissions from large industrial facilities, control fugitive emissions from oil and gas production, reduce leaks from industrial facilities
Transportation	152	-32 to -27	Phase 2 heavy-duty truck GHG standards, ZEV action plan for trucks, construct High Speed rail system from SF to LA, coordinated land use planning, Sustainable Freight Strategy
Industrial	87	-15 to -8	Reduce use of high-GWP compounds from refrigeration, air conditioning, aerosols
Waste	7	14 to 29	Eliminate disposal of organic materials at landfills, in-state infrastructure development, address challenges with

			composting and anaerobic digestion, additional methane control and landfills
Source: California Environmental Protection Agency, "California's 2017 Climate Change Scoping Plan, Table 3 (page 31)." November 2017.			

g. Cap-and-Trade Program

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and declines over time, achieving GHG emission reductions throughout the program's duration.

Under the Cap-and-Trade Program, covered entities that emit more than 25,000 metric tons CO₂e per year must comply with the Cap-and-Trade Program. Triggering of the 25,000 metric tons CO₂e per year "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits.

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate.

In sum, the Cap-and-Trade Program achieves aggregate, rather than site-specific or project-level, GHG emissions reductions. Also, due to the regulatory framework adopted by CARB in AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures.

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

On July 25, 2017, Governor Brown signed AB 398, which extends the program through 2030. AB 398 calls for half of emissions offsets to be generated in California and prohibits CARB and air districts from regulating CO₂ from sources under the Cap-and-Trade program.

h. California Renewables Portfolio Standard

To advance the State's renewable energy goals, SB 1078 was established in 2002 and supplemented in 2006 with SB 107 to require that 20 percent of electricity retail sales be served by renewable energy resources by 2010. In October 2015, Governor Jerry Brown signed SB 350 into legislation, requiring retail sellers and publicly-owned utilities to procure 50 percent of electricity from eligible renewable energy resources by 2030.

i. Senate Bill 1368

SB 1368, signed into law by Governor Schwarzenegger in September 2006, requires the California Public Utilities Commission and the California Energy Commission to establish GHG emissions performance standards for the generation of electricity. These standards also apply to power that is generated outside of California and imported into the state.

j. SB 97 & CEQA Guidelines

In August 2007, the California State Legislature adopted Senate Bill 97 (SB 97), requiring the Governor's Office of Planning and Research (OPR) to prepare and transmit new CEQA guidelines for the mitigation of GHG emissions or the effects of GHG emissions to the Resources Agency by July 1, 2009. In response to SB 97, the OPR adopted CEQA guidelines that became effective on March 18, 2010. The amendments identify three factors that should be considered in the evaluation of the significance of GHG emissions:

1. The extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.¹⁴

The amendments provide guidance to public agencies on analysis and clarifies that “The effects of GHG emissions are cumulative and should be analyzed in the context of CEQA’s requirements for cumulative impact analysis.”

k. Senate Bill 375 (SB 375)

On September 30, 2008, SB 375 was instituted to help achieve AB 32 goals through regulation of cars and light trucks. SB 375 aligns three policy areas of importance to local government: (1) regional long-range transportation plans and investments; (2) regional allocation of the obligation for cities and counties to zone for housing; and (3) a process to achieve GHG emissions reductions targets for the transportation sector. It establishes a process for CARB to develop GHG emissions reductions targets for each region (as opposed to individual local governments or households). SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

On October 24, 2008, CARB published draft guidance for setting interim GHG emissions significance thresholds. This was 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). CARB's preliminary proposal consisted of a quantitative threshold of 7,000 metric tons (MT) of CO₂e per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions. Further, CARB’s proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as

¹⁴ 14 Cal. Code Regs. § 15064.4(b).

manufacturing plants, or uses that utilize combustion engines.¹⁵ There is currently no timetable for finalized thresholds.

On September 23, 2010, CARB adopted regional targets for the reduction of GHG emissions for 2020 and 2035.¹⁶ For the area under the Southern California Association of Governments' (SCAG) jurisdiction - including the Project area - CARB adopted Regional Targets for reducing GHG emissions by 8 percent for 2020 and by 13 percent for 2035. On February 15, 2011, the CARB's Executive Officer approved the final targets.¹⁷ As of October 1, 2018, the 2035 target was raised to 19 percent.

l. Title 24 Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings, located at Title 24, Part 6 of the California Code of Regulations and commonly referred to as "Title 24," were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods.

m. California Green Building Standards

The California Green Building Standards Code, which is Part 11 of the California Code of Regulations (the "CCR"), is commonly referred to as the CALGreen Code. CALGreen was added to Title 24 to represent base standards for reducing water use, recycling construction waste, and reducing polluting materials in new buildings. In contrast, Title 24 focuses on promoting more energy-efficient buildings and considers the building envelope, heating and cooling, water heating, and lighting restrictions. The first edition of the CALGreen Code in 2008 contained only voluntary standards. The 2010 edition included mandatory requirements for state-regulated buildings and structures throughout California, including requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation and more. The CALGreen Code provides for design options allowing the designer to

¹⁵ *California Air Resources Board.*
<http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf>.

¹⁶ *California Air Resources Board. Notice of Decision: Regional Greenhouse Gas Emissions Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.*
<http://www.arb.ca.gov/cc/sb375/notice%20of%20decision.pdf>.

¹⁷ *CARB. 2011. Executive Order No. G-11-024: Relating to Adoption of Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375.*

determine how best to achieve compliance for a given site or building condition. The CALGreen Code also requires building commissioning which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems are functioning at their maximum efficiency. The updated 2016 CALGreen Code became effective January 1, 2017.

(4) Regional

a. South Coast Air Quality Management District Recommendations for Significance Thresholds

The South Coast Air Quality Management District (SCAQMD) convened a GHG CEQA Significance Threshold Working Group in 2008-2009 to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members included government agencies implementing CEQA and representatives from stakeholder groups that provide input to the SCAQMD staff on developing GHG CEQA significance thresholds, though there are no plans at this time to further the work on these thresholds. On December 5, 2008, the SCAQMD Governing Board adopted interim GHG significance threshold for projects where the SCAQMD is lead agency. This threshold uses a tiered approach to determine a project's significance, with 10,000 metric tons of CO₂ equivalent (MTCO_{2e}) as a screening numerical threshold for stationary sources.

The SCAQMD has not adopted guidance for CEQA projects under other lead agencies. In September 2010, the Working Group released additional revisions which recommended a screening threshold of 3,500 MTCO_{2e} for residential projects, 1,400 MTCO_{2e} for commercial projects, and 3,000 MTCO_{2e} for mixed use projects, additionally the Working Group identified project-level efficiency target of 4.3 MTCO_{2e} per service population as a 2020 target and 3.0 MTCO_{2e} per service population as a 2035 target.¹⁸ These recommended screening thresholds have not been added to the SCAQMD CEQA Handbook and have not been adopted by any local lead agency for application in local CEQA thresholds. These are not recognized by the City of Los Angeles as indicators of a project's impact significance for volumes of GHG emissions.

The SCAQMD has also adopted Rules 2700, 2701, and 2702 that address GHG emissions reductions. However, these rules address boilers and process heaters, forestry, and manure management projects, none of which are proposed or required by the Project.

¹⁸ SCAG, *Final PEIR for the RTP/SCS, Appendix G*. Accessible at http://rtpscs.scag.ca.gov/Documents/peir/2012fPEIR_AppendixG_ExampleMeasures.pdf.

b. SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

SCAG adopted its 2016-2040 Regional Transportation Plan Sustainable Communities Strategy on April 6, 2016. This update called for continuing integrated planning for land use and transportation that will help achieve the State's goal of reducing per capita GHG emissions for light-duty vehicles and trucks by eight percent by 2020 compared to 2005 levels, by 18 percent by 2035, and 21 percent by 2040. The plan calls for public transportation improvements that will reduce GHG emissions per household by up to 30 percent, one percent reduction in GHG from having zero emission vehicles, neighborhood vehicles, and carsharing/ridesourcing make up two percent of the vehicle fleet by 2040.

(5) Local

a. Green New Deal

In April 2019, Mayor Eric Garcetti released the Green New Deal, a program of actions designed to create sustainability-based performance targets through 2050 designed to advance economic, environmental, and equity objectives. Climate mitigation is one of eight explicit benefits that help define its strategies and goals. These include reducing GHG emissions through near-term outcomes:

- Reduce 91.5 percent of GHG emissions by 2050.
- Reduce municipal GHG emissions 55 percent by 2025, 65 percent by 2035, and carbon neutrality by 2045.
- Establish a pathway to derive 100 percent of LADWP's electricity from renewable sources by 2045.
- Develop a comprehensive climate action and adaptation plan, including an annual standardized GHG inventory.
- Work with other cities to establish standardization of municipal and community-wide GHG inventory reporting.
- Accelerate the decarbonization of the electricity grid.
- A zero carbon buildings mandate to ensure all buildings are emissions free by 2050.

b. Mobility Plan 2035

On January 20, 2016, the City of Los Angeles adopted its Mobility Plan 2035, the circulation element of its General Plan. The Plan calls for strategies that advance five goals: 1) Safety First, 2) World Class Infrastructure, 3) Access for All Angelenos, 4)

Collaboration, Communication, and Informed Choices, and 5) Clean Environments and Healthy Communities.

While the Plan focuses on developing a multi-modal transportation system, its key policy initiatives include considering the strong link between land use and transportation and targeting GHG through a more sustainable transportation system. As such, the Plan's call for integrated land use planning, clean fuel vehicles are consistent with State and regional plans calling for more compact growth in areas with transportation infrastructure.

c. City of Los Angeles Green Building Code

On December 15, 2011, the Los Angeles City Council approved Ordinance No. 181,481, which amended Chapter IX of the Los Angeles Municipal Code (LAMC), referred to as the Los Angeles Green Building Code, by adding a new Article 9 to incorporate various provisions of the 2010 CALGreen Code. On December 20, 2016, the Los Angeles City Council approved Ordinance No. 184,692, which further amended Chapter IX of the LAMC, by amending certain provisions of Article 9 to reflect local administrative changes and incorporating by reference portions of the 2016 CALGreen Code. Projects filing building permit applications on or after January 1, 2017, must comply with the provisions of the Los Angeles Green Building Code.

The Los Angeles Green Building Ordinance requires that all Projects filed on or after January 1, 2017, comply with the Los Angeles Green Building Code as amended to comply with the 2016 CALGreen Code. The Green Building Ordinance includes measures that would increase energy efficiency on the Project Site, including installing Energy Star rated appliances and installation of water-conserving fixtures.

d. Existing Conditions

(1) Existing Statewide GHG Emissions

GHGs are the result of both natural and human-influenced activities. Regarding human-influenced activities, motor vehicle travel, consumption of fossil fuels for power generation, industrial processes, heating and cooling, landfills, agriculture, and wildfires are the primary sources of GHG emissions. Without human intervention, Earth maintains an approximate balance between the emission of GHGs into the atmosphere and the storage of GHGs in oceans and terrestrial ecosystems. Events and activities, such as the industrial revolution and the increased combustion of fossil fuels (e.g., gasoline, diesel, coal, etc.), have contributed to the rapid increase in atmospheric levels

of GHGs over the last 150 years. As reported by the CEC, California contributes 1.4 percent of global and 8.2 percent of national GHG emissions.¹⁹ California represents approximately 12 percent of the national population. Approximately 80 percent of GHGs in California consist of CO₂ produced from fossil fuel combustion. The current California GHG inventory, which was prepared by CARB, compiles statewide anthropogenic GHG emissions and carbon sinks/storage from years 2000 to 2016.²⁰ It includes estimates for CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. The GHG inventory for California for years 2010 through 2016 is presented in Table IV.G-3, below. As shown in Table IV.G-3, the GHG inventory for California in 2016 was 429.35 million MTCO₂e.

**Table IV.G-1
California GHG Inventory(million metric tons CO₂e)**

	2010	2011	2012	2013	2014	2015	2016
Transportation	165.07	161.51	161.22	160.90	162.28	166.14	169.38
<i>On Road</i>	151.20	148.03	147.71	147.07	148.04	151.52	154.64
Passenger Vehicles	114.13	111.37	111.77	111.52	112.20	116.33	119.03
Heavy Duty Trucks	37.07	36.65	35.93	35.55	35.83	35.19	35.62
<i>Ships & Commercial Boats</i>	3.66	3.52	3.43	3.42	3.49	3.42	3.24
<i>Aviation (Intrastate)</i>	3.84	3.73	3.75	3.93	3.90	4.22	4.44
<i>Rail</i>	2.24	2.38	2.38	2.38	2.38	2.38	2.37
<i>Off Road</i>	2.03	2.13	2.23	2.33	2.43	2.53	2.63
<i>Unspecified</i>	2.09	1.72	1.71	1.77	2.04	2.07	2.07
<i>Percent of Total Emissions</i>	37%	36%	36%	36%	37%	38%	39%
Electric Power	90.34	88.06	95.09	89.65	88.24	83.67	68.58
<i>In-State Generation</i>	46.75	41.20	51.03	49.47	51.72	49.93	42.30
Natural Gas	40.59	35.92	45.77	45.66	46.43	45.16	38.28
Other Fuels	5.05	4.03	4.44	2.91	4.40	3.65	2.55
Fugitive and Process Emissions	1.10	1.25	0.82	0.90	0.90	1.13	1.48
<i>Imported Electricity</i>	43.59	46.86	44.07	40.17	36.51	33.74	26.28
<i>Unspecified Imports</i>	13.45	15.52	17.48	11.82	13.44	11.21	9.68
<i>Specified Imports</i>	30.14	31.34	26.59	28.35	23.07	22.52	16.60
<i>Percent of Total Emissions</i>	20%	20%	21%	20%	20%	19%	16%

¹⁹ CEC, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, CEC-600-2006-013, October 2006.

²⁰ A carbon inventory identifies and quantifies sources and sinks of greenhouse gases. Sinks are defined as a natural or artificial reservoir that accumulates and stores some carbon-containing chemical compound for an indefinite period.

	2010	2011	2012	2013	2014	2015	2016
Commercial and Residential	45.05	45.50	42.89	43.54	37.37	37.94	39.36
<i>Residential Fuel Use</i>	29.19	29.64	27.34	28.14	22.87	23.29	24.20
Natural Gas	26.99	27.51	25.76	26.52	21.58	21.90	22.80
Other Fuels	2.21	2.13	1.58	1.62	1.28	1.39	1.40
<i>Commercial Fuel Use</i>	13.58	13.71	13.41	13.30	12.51	12.67	12.92
Natural Gas	11.17	11.33	11.25	11.28	10.39	10.50	10.89
Other Fuels	2.41	2.38	2.16	2.02	2.12	2.16	2.03
<i>Commercial Cogeneration Heat Output</i>	0.92	0.78	0.76	0.71	0.58	0.56	0.81
<i>Percent of Total Emissions</i>	10%	10%	10%	10%	8%	9%	9%
Industrial	91.50	90.94	91.07	93.73	93.96	91.58	89.61
<i>Refineries</i>	30.46	30.12	29.88	29.22	29.40	28.21	29.61
<i>General Fuel Use</i>	17.93	18.78	18.91	19.31	19.87	19.23	18.53
Natural Gas	13.46	14.50	14.48	14.36	15.56	14.79	14.99
Other Fuels	4.47	4.28	4.43	4.94	4.31	4.45	3.53
<i>Oil & Gas Extraction^a</i>	16.80	16.73	16.73	19.11	19.47	19.58	17.93
Fuel Use	15.01	14.91	14.87	16.99	17.18	17.22	15.66
Fugitive Emissions	1.80	1.82	1.86	2.12	2.29	2.36	2.27
<i>Cement Plants</i>	5.57	6.14	6.92	7.20	7.61	7.56	7.60
Clinker Production	3.46	4.08	4.65	4.93	5.27	5.17	5.15
Fuel Use	2.11	2.07	2.26	2.28	2.34	2.39	2.45
<i>Cogeneration Heat Output</i>	12.61	11.15	10.81	10.99	9.64	8.98	8.00
<i>Other Process Emissions</i>	8.13	8.02	7.81	7.90	7.98	8.01	7.95
<i>Percent of Total Emissions</i>	20%	20%	20%	21%	21%	21%	21%
Recycling and Waste	8.37	8.47	8.49	8.52	8.59	8.73	8.81
<i>Landfills^b</i>	8.11	8.19	8.20	8.22	8.28	8.40	8.47
<i>Composting</i>	0.26	0.27	0.29	0.30	0.31	0.33	0.34
<i>Percent of Total Emissions</i>	2%	2%	2%	2%	2%	2%	2%
High Global Warming Potential	13.52	14.54	15.54	16.65	17.70	18.93	19.78
<i>Ozone Depleting Substance Substitutes</i>	13.20	14.21	15.25	16.38	17.42	18.37	19.24
<i>Electricity Grid SF6 Losses^c</i>	0.24	0.25	0.24	0.18	0.14	0.42	0.37
<i>Semiconductor Manufacturing^b</i>	0.08	0.08	0.06	0.08	0.14	0.14	0.16
<i>Percent of Total Emissions</i>	3%	3%	3%	4%	4%	4%	5%
Agriculture^d	34.27	34.89	36.08	34.61	35.95	34.41	33.84
<i>Livestock</i>	24.00	23.84	24.47	23.49	23.81	23.10	22.99
Enteric Fermentation (Digestive Process)	12.13	11.98	12.10	11.78	11.85	11.40	11.35
Manure Management	11.86	11.86	12.38	11.71	11.96	11.70	11.64
<i>Crop Growing & Harvesting</i>	7.50	7.40	7.73	7.42	7.48	6.91	6.89
Fertilizers	5.78	5.67	5.93	5.65	5.72	5.28	5.25
Soil Preparation and Disturbances	1.64	1.65	1.73	1.69	1.68	1.56	1.56
Crop Residue Burning	0.08	0.08	0.08	0.08	0.08	0.08	0.08

	2010	2011	2012	2013	2014	2015	2016
<i>General Fuel Use</i>	2.77	3.65	3.88	3.71	4.66	4.39	3.95
Diesel	1.96	2.52	2.47	2.53	3.54	3.66	3.19
Natural Gas	0.65	0.66	0.70	0.69	0.63	0.64	0.72
Gasoline	0.16	0.48	0.71	0.49	0.49	0.10	0.04
Other Fuels	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<i>Percent of Total Emissions</i>	8%	8%	8%	8%	8%	8%	8%
Total Net Emissions	448.11	443.91	450.38	447.59	444.10	441.40	429.35
◇	—						
^a	<i>Reflects emissions from combustion of fuels plus fugitive emissions.</i>						
^b	<i>These categories are listed in the Industrial sector of CARB's GHG Emission Inventory sectors.</i>						
^c	<i>This category is listed in the Electric Power sector of CARB's GHG Emission Inventory sectors.</i>						
^d	<i>Reflects use of updated USEPA models for determining emissions from livestock and fertilizers.</i>						
<i>Source: California GHG Inventory for 2000–2016—by Category as Defined in the Climate Change Scoping Plan million metric tons of CO₂e—(based upon IPCC Second Assessment Report's Global Warming Potentials).</i>							

(2) Existing Project Site Emissions

Existing development includes a 2,018 square-foot single family residence. As shown in Table IV.G-4, the existing development generates approximately 23.4 metric tons of CO₂e annually, with the majority of emissions generated by mobile sources traveling to and from the Project Site.

Table IV.G-4
Existing Annual CO₂e Greenhouse Gas Emissions (Metric Tons Per Year)

Scenario and Source	CO ₂	CH ₄	N ₂ O	CO ₂ e
Area Sources	<1	<1	0	<1
Energy Sources	7	<1	<1	7
Mobile Sources	15	<1	0	15
Waste Sources	<1	<1	0	1
Water Sources	1	<1	<1	1
Total Emissions	23	<1	<1	24
<i>Source: DKA Planning, 2018, based on CalEEMod 2016.3.2 model runs, included in Appendix D to this Draft EIR.</i>				
<i>Note: numbers may not reconcile due to rounding.</i>				

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines (CEQA Guidelines), the Project would have a significant impact related to GHGs if it would:

Threshold (a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

Threshold (b): Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.²¹

Section 15064.4 of the CEQA Guidelines provides further guidance of determining the significance of impacts from GHG emissions as follows:

I. The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions of projects. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

- a. Quantify GHG emissions resulting from a project; and/or
- b. Rely on a qualitative analysis or performance based standards.

II. In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. A lead agency should consider the following factors, among others, when determining the significance of impacts from greenhouse gas emissions on the environment:

- c. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
- d. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and

²¹ A recent opinion by the California Supreme Court on November 30, 2015 (*Center for Biological Diversity v. California Department of Fish and Wildlife*) has suggested that environmental analyses need to support their assumptions and provide evidentiary support to find consistency with a "Business as Usual" approach with the CARB Scoping Plan.

- e. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

Section 15064.4 of the CEQA Guidelines does not establish a threshold of significance. Lead agencies have the discretion to establish significance thresholds for their respective jurisdictions, and in establishing those thresholds, a lead agency may appropriately look to thresholds developed by other public agencies, or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), as long as any threshold chosen is supported by substantial evidence (see CEQA Guidelines Section 15064.7(c)). The CEQA Guidelines amendments also clarify that the effects of GHG emissions are cumulative.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project will comply with an approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area of the project.²² To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency.²³ Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans

²² 14 CCR § 15064(h)(3).

²³ *Ibid.*

[and] plans or regulations for the reduction of greenhouse gas emissions.”²⁴ Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of non-significance for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.²⁵

In the absence of any adopted, quantitative threshold, the Project would not have a significant effect on the environment if it complies with applicable, plans, policies, regulations or and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. For this Project, as a single-family dwelling development project, the most directly applicable adopted regulatory plans to reduce GHG emissions are the City of Los Angeles’s Green New Deal: Sustainability Plan 2019, and the Los Angeles Green Building Code, which encourages and requires applicable projects to implement energy efficiency measures.

b. Methodology

Section 15064.4 of the CEQA Guidelines states that a lead agency may use a model or methodology to estimate greenhouse gas emissions resulting from a project and that the lead agency has discretion to select the model or methodology it considers most appropriate, as long as that selection is supported with substantial evidence, and any limitations of the particular model or methodology selected for use are explained.

The City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions and has not formally adopted a local plan for

²⁴ *Ibid.* (emphasis added).

²⁵ See, for example, San Joaquin Valley Air Pollution Control District, CEQA Determinations of Significance for Projects Subject to CARB’s GHG Cap-and-Trade Regulation, APR—2030 (June 25, 2014), in which the SJVAPCD “determined that GHG emissions increases that are covered under CARB’s Cap-and-Trade regulation cannot constitute significant increases under CEQA...” Further, the SCAQMD has taken this position in CEQA documents it produced as a lead agency. The SCAQMD has prepared three Negative Declarations and one Draft Environmental Impact Report that demonstrate the SCAQMD has applied its 10,000 MTCO₂e/yr. significance threshold in such a way that GHG emissions covered by the Cap-and-Trade Program do not constitute emissions that must be measured against the threshold. See: SCAQMD, *Final Negative Declaration for: Ultramar Inc. Wilmington Refinery Cogeneration Project*, SCH No. 2012041014 (October 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/ultramar_neg_dec.pdf?sfvrsn=2); SCAQMD, *Final Negative Declaration tor Phillips 66 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project*, SCH No. 2013091029 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/phillips-66-fnd.pdf?sfvrsn=2); *Final Mitigated Negative Declaration for Toxic Air Contaminant Reduction for Compliance with SCAQMD Rules 1420.1 and 1402 at the Exide Technologies Facility in Vernon, CA*, SCH No. 2014101040 (December 2014) (www.aqmd.gov/docs/default-source/ceqa/documents/permit-projects/2014/exide-mnd_final.pdf?sfvrsn=2); and *Draft Environmental Impact Report for the Breitburn Santa Fe Springs Blocks 400/700 Upgrade Project*, SCH No. 2014121014 (April 2014).

reducing GHG emissions. Nor have SCAQMD, OPR, CARB, CAPCOA, or any other state or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the Project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the Project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the Project's GHG-related impacts on the environment.

Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the Project using recommended air quality models, as described below. The primary purpose of quantifying the Project's GHG emissions is to satisfy State CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions. The estimated emissions inventory is also used to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions. However, the significance of the Project's GHG emissions impacts is not based on the amount of GHG emissions resulting from the Project.

CARB recommends consideration of indirect emissions to provide a more complete picture of the GHG footprint of a facility. Annually reported indirect energy usage aids the conservation awareness of a facility and provides information to CARB to be considered for future strategies.²⁶ For example, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the AB 32 reporting requirements. Additionally, the Office of Planning and Research has noted that lead agencies "shall make a good-faith effort, based on available information, to calculate, model, or estimate the amount of GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities."²⁷ Therefore, direct and indirect emissions have been calculated for the Project.

²⁶ *California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Regulation for Mandatory Reporting of Greenhouse Gas Emissions Pursuant to the California Global Warming Solutions Act of 2006 (AB 32), Planning and Technical Support Division Emission Inventory Branch, October 19, 2007, www.arb.ca.gov/regact/2007/ghg2007/isor.pdf, accessed July 31, 20.*

²⁷ *OPR Technical Advisory, p. 5.*

GHG emissions were quantified from construction and operation of the Project using SCAQMD's California Emissions Estimator Model (CalEEMod), version 2016.3.2. Operational emissions include both direct and indirect sources including mobile sources, water use, solid waste, area sources, natural gas, and electricity use emissions. CalEEMod is a statewide land use emissions computer model developed by Environ Corporation for the SCAQMD and is 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 is considered by the SCAQMD to be an accurate and comprehensive tool for quantifying air quality and GHG impacts from land use projects throughout California.²⁸

(1) Quantification of Emissions

In view of the above considerations, this Draft EIR quantifies the Project's total annual GHG emissions for informational purposes, taking into account the GHG emission reduction measures that would be incorporated into the Project's design.

This Draft EIR quantifies the Project's annual GHG emissions and compares them to a Project without Reduction Features scenario, as defined by CARB's most updated projections for AB/SB 32. This comparison is included herein for informational purposes only, including in order to disclose the relative carbon efficiency of the Project and to determine if there would be a reduction in the Project's incremental contribution of GHG emissions as a result of compliance with regulations and requirements adopted to implement plans for the reduction or mitigation of GHG emissions.

a. Construction

The Project's construction emissions were calculated using CalEEMod Version 2016.3.2. Details of the modeling assumptions and emission factors are provided in Appendix D of this Draft EIR. The calculations of the emissions generated during Project construction activities reflect the types and quantities of construction equipment that would be used to remove existing pavement, grade and excavate the Project Site, construct the proposed building and related improvements, and plant new landscaping within the Project Site.

In accordance with the SCAQMD's guidance, GHG emissions from construction were amortized (i.e., averaged annually) over the lifetime of the Project. As impacts

²⁸ See www.caleemod.com.

from construction activities occur over a relatively short-term period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. Therefore, the SCAQMD recommended that construction emissions be amortized over a 30-year time period, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.²⁹ Therefore, total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions.

b. Operation

CalEEMod is used to calculate potential GHG emissions generated by new land uses on the Project Site, including area sources, electricity, natural gas, mobile sources, stationary sources, solid waste generation and disposal and water usage/wastewater generation.

The analysis in this section includes potential emissions from the Project at build-out based on actions and mandates expected to be in force in 2020. Early-action measures identified in the *Climate Change Scoping Plan* that have not been approved were not credited in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at build-out. Emissions calculations for the Project include credits or reductions for the regulatory compliance measures and project design features set forth throughout this analysis, such as reductions in energy or water demand. In addition, as mobile source GHG emissions are directly dependent on the number of vehicle trips, a decrease in the number of Project generated trips as a result of project features will provide a proportional reduction in mobile source GHG emissions. The analysis considers State mandates that were already in place when CARB prepared the *Supplemental FED* (e.g., Pavley I Standards, full implementation of California's Statewide Renewables Portfolio Standard beyond current levels of renewable energy, and the California Low Carbon Fuel Standard). However, it conservatively did not include actions and mandates that are not already in place but are expected to be in force in 2020 (e.g., Pavley II), which could further reduce GHG emissions from use of light-duty vehicles by 2.5 percent. The analysis incorporates compliance with the minimum performance level required under Title 24.

²⁹ SCAQMD Governing Board Agenda Item 31, December 5, 2008.

c. No Action Taken (NAT) Comparison

While there are many ways to quantify the efficiency of the GHG reduction measures provided for in the plans and policies, this analysis compares the Project's GHG emissions to the emissions that would be generated by the Project in the absence of any GHG reduction measures (i.e., the No Action Taken [NAT] Scenario). This approach is consistent with the concepts used in CARB's 2017 Climate Change Scoping Plan. This methodology is used to analyze consistency with applicable GHG reduction plans and policies and demonstrate the efficacy of the measures contained therein, but it is not a threshold of significance.

The analysis in this section includes potential emissions under NAT scenarios and from the Project at build-out based on actions and mandates expected to be in force in 2020. Early-action measures identified in the Climate Change Scoping Plan that have not been approved were not credited in this analysis. By not speculating on potential regulatory conditions, the analysis takes a conservative approach that likely overestimates the Project's GHG emissions at build-out. The NAT scenario is used to establish a comparison with project-generated GHG emissions. The NAT scenario does not consider site-specific conditions, project design features, or prescribed mitigation measures. As an example, a NAT scenario would apply a base ITE trip-generation rate for the project and would not consider site-specific benefits resulting from the proposed mix of uses or close proximity to public transportation.

(2) Consistency with Applicable Plans and Policies

Pursuant to CEQA Guidelines Appendix G, this environmental analysis evaluates the consistency of the Project with applicable plans and policies that govern control of GHG emissions. A consistency analysis will be provided, which describes the Project's compliance with or exceedance of performance-based standards, and consistency with applicable plans and policies adopted for the purpose of reducing greenhouse gas emissions, included in the regulations outlined in the applicable portions of the Green New Deal and the City of Los Angeles Green Building Code, and judges whether the project would conflict with any of the applicable policies or strategies.

c. Project Design Features

The following Project Design Feature is applicable to the Project:

GHG-PDF-1 The design of the Project shall include, but not be limited to, the following sustainability features:

- Inclusion of green roofs that are planted with grass.

- Water-efficient plantings with drought-tolerant species.

d. Analysis of Project Impacts

Would the project:

Threshold (a): Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold (b): Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG?

(1) Project Emissions

As discussed above, Section 15064.4 of the CEQA guidelines recommends quantification of a Project's GHG emissions. However, the quantification is being done for informational purposes only and Project GHG emissions are not evaluated against any numeric threshold. The Project would result in direct and indirect GHG emissions generated by different types of emissions sources, including:

- Construction: emissions associated with shoring, excavation, grading, and construction-related equipment and vehicular activity;
- Area source: emissions associated with landscaping equipment and consumer products;
- Energy source (building operations): emissions associated with space heating and cooling, water heating, energy consumption, and lighting;
- Mobile source: emissions associated with vehicles accessing the Project Site;
- Stationary source: emissions associated with stationary equipment (e.g., emergency generators);
- Solid Waste: emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon; and
- Water/Wastewater: emissions associated with energy used to pump, convey, deliver, and treat water.

The Project would generate an incremental contribution to and cumulative increase in sources of GHGs. A specific discussion regarding potential GHG emissions associated with the construction and operational phases of the Project is provided below.

a. Construction

Construction of the Project would emit GHG emissions through the combustion of fossil fuels by heavy-duty construction equipment and through vehicle trips generated

by construction workers and vendors traveling to and from the Project Site. These impacts would vary day to day over the duration of construction activities. As illustrated in Table IV.G-5, construction emissions of CO₂ would peak in 2019, when up to 332 metric tons of CO₂e per year are anticipated. These emissions are further incorporated in the assessment of long-term operational impacts by amortizing them over a 30-year period, pursuant to guidance from the State and SCAQMD. Specifically, the total of all construction emissions are used to amortize construction emissions in the operational analysis.

Table IV.G-5
Estimated Construction Emissions (Metric Tons Per Year)

Construction Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
2019	330	<1	0	332
2020	78	<1	0	79
Total	408	<1	0	411
Amortized annual emissions				14
<i>Source: DKA Planning 2018, based on CalEEMod 2016.3.2 model runs, included in Appendix D of this Draft EIR.</i>				

b. Operation

Greenhouse gas emissions were calculated for long-term operations. Both one-time emissions and indirect emissions are expected to occur each year after build-out of the Project. One-time emissions from construction and demolition were amortized over a 30-year period because no significance threshold has been adopted for such emissions. The Project emission reductions include the benefits from regulatory changes, which include the implementation of the Renewables Portfolio Standard (RPS) of 33 percent, the Pavley regulation and Advanced Clean Cars program mandating higher fuel efficiency standards for light-duty vehicles, and the Low Carbon Fuel Standard (LCFS).

As shown in Table IV.G-6, the Project's new single-family residence would emit 37 MTCO₂e per year over existing emissions. This represents the increase in GHG emissions anticipated from the operation of the new residence and is a conservative analysis for two reasons. First, there is likely to be a decrease in the area, energy, waste, and water-related GHG emissions from the former residence which would serve as an accessory unit that would be used less than a primary residence. Any such reductions have not been netted out of the gross emissions summarized in Table IV.G-6. Second, the construction of the new house is not expected to result in more mobile source emissions from vehicles serving the family living on the Project Site. Nevertheless, this analysis conservatively included GHG emissions from the operation of a new residence.

**Table IV.G-6
Estimated Annual Project MTCO₂e GHG Emissions (Metric Tons per Year) – 2020
Buildout**

	Annual Project Emissions
Area Sources	1
Energy Sources	6
Mobile Sources	14
Waste Sources	1
Water Sources	1
Construction	14
Total Emissions	37
<i>Note: Daily construction emissions amortized over 30-year period pursuant to SCAQMD guidance. The average annual construction emissions derived by taking total emissions over duration of activities and dividing by construction period.</i>	
<i>Source: DKA Planning, 2018.</i>	

(i) Estimated Reduction of Project Related GHG Emissions
Resulting from Consistency with Plans

As noted earlier, one approach to demonstrating a project's consistency with GHG plans is to show how a project will reduce its incremental contribution through a NAT comparison. The analysis in this section includes potential emissions under a NAT scenario and from the Project at build-out based on actions and mandates expected to be in force in 2020, for informational purposes only.

As shown in Table IV.G-7, the emissions for the Project and its associated CARB 2020 NAT scenario are estimated to be 36.3 and 46.7 MTCO₂e per year, respectively, which shows the Project would reduce emissions by approximately 22 percent from CARB's 2020 NAT scenario.

**Table IV.G-7
Estimated Reduction of Project-Related GHG Emissions Resulting from Consistency with Plans**

Scenario and Source	NAT Scenario*	As Proposed Scenario	Reduction from NAT Scenario	Change from NAT Scenario
Area Sources	0.8	0.8	-	0%
Energy Sources	10.2	5.9	-4.3	-42%
Mobile Sources	20.5	14.4	-6.1	-30%
Waste Sources	0.8	0.8	-	0%
Water Sources	0.8	0.8	-	0%
Construction	13.5	13.5	-	0%
Total Emissions	46.7	36.3	-10.4	-22

Daily construction emissions amortized over 30-year period pursuant to SCAQMD guidance. Annual construction emissions derived by taking total emissions over duration of activities and dividing by construction period.

** NAT scenario does not assume 30% reduction in mobile source emissions from Pavley emission standards (19.8%), low carbon fuel standards (7.2%), and vehicle efficiency measures 2.8%); does not assume 42% reduction in energy production emissions from the State's renewables portfolio standard (33%), natural gas extraction efficiency measures (1.6%), and natural gas transmission and distribution efficiency measures (7.4%).*

Source: DKA Planning, 2019.

This analysis uses the 2017 Scoping Plan's statewide goals as one approach to evaluate the Project's incremental contribution. The methodology is to compare the Project's emissions as proposed to the Project's emissions if the Project were built using a NAT approach in terms of design, methodology, and technology. This means the Project's emissions were calculated as if it was constructed with project design features to reduce GHG and with several regulatory measures adopted in furtherance of AB 32.

While the AB 32 Scoping Plan's cumulative statewide objectives were not intended to serve as the basis for project-level assessments, this analysis finds that its NAT comparison based on the Scoping Plan is appropriate because the Project would contribute to statewide GHG reduction goals.

(2) Consistency with Applicable Plans and Policies

The Project would likely contribute to cumulative increases in GHG emissions over time in the absence of policy intervention. As noted earlier, the Project would be consistent with a number of relevant plans and policies that govern climate change, including the following:

- L.A.’s Green New Deal, Sustainability Plan 2019.
- L.A. Green Building Code

a. Green New Deal Sustainability Plan 2019

The Project would be substantially consistent with the targets in the City’s Sustainability Plan 2019 update, designed to move the City to a carbon neutral future. As illustrated in Table IV.G-8, the Project does not conflict with applicable strategies from the plan or impede the City from achieving any targets identified in the Sustainability Plan.

**Table IV.G-8
Project Consistency with the Green New Deal**

Target	Project Consistency
Chapter 3: Local Water	
Reduce potable water use per capita by 22.5% by 2025; 25% by 2035; and maintain or reduce 2035 per capita water use through 2050.	Consistent. The Project would be required to provide a schedule of plumbing fixtures and fixture fittings that reduce potable water use within the development by at least 20 percent. It would also provide irrigation design and controllers that are weather- or soil moisture-based and automatically adjust in response to weather conditions and plants’ needs.
Chapter 4: Clean and Healthy Buildings	
Reduce building energy use per sq. ft. for all building types 22% by 2025; 34% by 2035; and 44% by 2050 (from a baseline of 68 mBTU/aqft in 2015).	Consistent. The Project would comply with the State’s and City’s requirements that are designed to reduce GHG emissions over time, including the LA Green Building Code, Title 24, and other increasingly stringent energy conservation programs. Energy use from the overall site is expected to drop on a per square foot basis. Specifically, the existing 2,018 square-foot residence is expected to be used much less when it converts into a guest house. As such, energy, area, waste, and water-related GHG emissions from this secondary unit would be reduced on a per square-foot basis. The new 8,099 square-foot residence would comply with more stringent energy efficiency requirements, lowering the overall site energy use on a per-square foot basis.

All new buildings will be net zero carbon by 2030 and 100% of buildings will be net zero carbon by 2050.	Consistent. The Project would comply with the State's and City's requirements that are designed to reduce GHG emissions over time, including the LA Green Building Code, Title 24, and other increasingly stringent energy conservation programs. The Project would help the City move toward a net zero carbon future.
Chapter 5: Housing & Development	
Increase cumulative new housing unit construction to 150,000 by 2025; and 275,000 units by 2035.	Consistent. The Project consists of the development of a new housing unit.
Ensure 57% of new housing units are built within 1500 ft. of transit by 2025; and 75% by 2035.	Inconsistent. The Project, surrounded by Runyon Canyon Park, would not be within 1500 feet of existing transit or transit planned by 2035. However, the Project does not request a change of land use or zoning and would not inhibit the City's efforts to meet this citywide target.
Create or preserve 50,000 income-restricted affordable housing units by 2035 and increase stability for renters.	Not Applicable. The Project consists of the development of a single-family residence for the current owner, with no rental or for sale units proposed or existing. The existing historic residence would be preserved as accessory living quarters and is not proposed to be rented separately.
Chapter 6: Mobility & Public Transit	
Increase the percentage of all trips made by walking, biking, micro-mobility/matched rides or transit to at least 35% by 2025, 50% by 2035, and maintain at least 50% by 2050.	Inconsistent. The Project consists of the development of a single-family residence on the Project Site, which is not close to transit. However, although the Project would not increase use of alternative modes of transportation, the Project would also not result in any new vehicle trips as the occupants of the current residence on the Project Site would move into the new proposed residence. Further, the Project would not inhibit the City's efforts to promote alternative transportation programs..
Reduce VMT per capita by at least 13% by 2025; 39% by 2035; and 45% by 2050.	Inconsistent. The Project consists of the development of a single-family residence while preserving the existing residence solely as an accessory living quarters, and as such would not reduce VMT per capita. Nevertheless, the Project would also not increase VMT, nor would it inhibit the City's citywide efforts to reduce VMT per capita.
Chapter 7: Zero Emission Vehicles	
Increase the percentage of electric and zero emission vehicles in the city to 25% by 2025; 80% by 2035; and 100% by 2050.	Consistent. The Project will comply with the LA Green Building Code requirements for Electric Vehicle infrastructure.
Chapter 9: Waster & Resource Recovery	

Increase landfill diversion rate to 90% by 2025; 95% by 2035 and 100% by 2050.	Consistent. The Project consists of the development of a single-family residence on the Project Site, which would participate in City trash services, including separating trash from recycling through the use of blue and green recycling bins provided by the LA Sanitation Department.
Reduce municipal solid waste generation per capita by at least 15% by 2030, including phasing out single-use plastics by 2028 (from a baseline of 17.85 lbs. of waste generated per capita per day in 2011).	Consistent. The Project consists of the development of a single-family residence on the Project Site, which would participate in City trash services, including separating trash from recycling through the use of blue and green recycling bins provided by the LA Sanitation Department.
Eliminate organic waste going to landfill by 2028.	Consistent. The Project consists of the development of a single-family residence on the Project Site, which would participate in City trash services, including the participation in the organic waste recycling program once the Citywide residential program is implemented.
Chapter 11: Urban Ecosystems & Resilience	
Increase tree canopy in areas of greatest need by at least 50% by 2028.	Consistent. As discussed in Section iV.C, Biological Resources, the Project includes the removal of 17 existing, non-native trees on the Project Site and would provide replacement trees according to City requirements, for a total of 34 replacement trees.
Reduce urban/rural temperature differential by at least 1.7 degrees by 2025; and 3 degrees by 2035.	Consistent. As discussed above as part of GHG-PDF-1, the Project includes a green roof, which is a type of cool roof that is planted with grass. The green roof would help lower the temperature and reduce the heat island effect.
Ensure proportion of Angelenos living within 1/2 mile of a park or open space is at least 65% by 2025; 75% by 2035; and 100% by 2050.	Consistent. The Project consists of the development of a single-family residence on the Project Site, which is located adjacent to and surrounded by Runyon Canyon
Achieve and maintain 'no-net loss' of native biodiversity by 2035.	Consistent. As discussed in Section IV.C, Biological Resources, neither the proposed grading nor the fuel modification activities would impact any vegetation types that are considered special status by either the California Department of Fish and Wildlife or the California Natural Diversity Database. In addition, the Project would not impact any protected trees nor would the Project impact any special-status wildlife species.
<i>Source: DKA Planning, 2019.</i>	

b. City of Los Angeles Green Building Code

The Project would comply with the City of Los Angeles' Green Building Code standards that require the Project to incorporate measures and design elements that reduce the carbon footprint of the development. As such, the Project would meet each of the ordinance's mandates for implementing specific requirements and/or meeting performance standards for resource conservation, including:

1. **GHG Emissions Associated with Energy Demand.** The Project must meet Title 24 standards and include Energy Star appliances, have pre-wiring for future solar facilities, and off-grid pre-wiring for future solar facilities. The Project must meet the following requirements:
 - Use of low-emitting paints, adhesives, carpets, coating, and other materials that reduce methane and other GHG emissions.
 - Equipment and fixtures would comply with the following where applicable:
 - Installed electric heat pumps would have a Heating Seasonal Performance Factor of 8.0 or higher.
 - Installed cooling equipment would have a Seasonal Energy Efficiency Ratio higher than 13.0 and an Energy Efficiency Ratio of at least 11.5.
 - Installed tank type water heaters would have an Energy Factor higher than 0.6.
 - Installed tankless water heaters would have an Energy Factor higher than 0.80.
 - Perform duct leakage testing to verify a total leakage rate of less than 6 percent of the total fan flow.
 - Building lighting in the kitchen and bathrooms within the dwelling units would consist of at least 90 percent ENERGY STAR qualified hard-wired fixtures (luminaires).
 - An electrical conduit would be provided from the electrical service equipment to an accessible location in the attic or other location suitable for future connection to a solar system. The conduit would be adequately sized by the designer but shall not be less than one inch. The conduit would be labeled as per the Los Angeles Fire Department requirements. The electrical panel

- would be sized to accommodate the installation of a future electrical solar system.
- A minimum of 250 square feet of contiguous unobstructed roof area would be provided for the installation of future photovoltaic or other electrical solar panels. The location would be suitable for installing future solar panels as determined by the designer.
 - Appliances would meet ENERGY STAR if an ENERGY STAR designation is applicable for that appliance.
2. **GHG Emissions Associated with Water Use.** The Project would be required to provide a schedule of plumbing fixtures and fixture fittings that reduce potable water use within the development by at least 20 percent. It would also provide irrigation design and controllers that are weather- or soil moisture-based and automatically adjust in response to weather conditions and plants' needs. Wastewater reduction measures would be included that help reduce outdoor potable water use. This would include:
- A schedule of plumbing fixtures and fixture fittings that would reduce the overall use of potable water within the building by at least 20 percent would be provided. The reduction shall be based on the maximum allowable water use per plumbing fixture and fitting as required by the California Building Standards Code. The 20 percent reduction in potable water use shall be demonstrated by one of the following methods:
 - Each plumbing fixture and fitting shall meet reduced flow rates specified on Table 4.303.2; or
 - A calculation demonstrating a 20 percent reduction in the building "water use" baseline would be provided.
 - When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads would not exceed specified flow rates.
 - When automatic irrigation system controllers for landscaping are provided and installed at the time of final inspection, the controllers shall comply with the following:

- Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change;
 - Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor that connects or communicates with the controller(s).
3. **GHG Emissions Associated with Solid Waste Generation.** The Project would comply with requirements to reduce construction waste by at least 50 percent set by the State's Green Building Code, through source reduction and recycling of construction waste.³⁰ In addition, Project Site operations are subject to AB 939 requirements to divert 50 percent of solid waste to landfills through source reduction, recycling, and composting. The Project is required by the California Solid Waste Reuse and Recycling Access Act of 1991 to provide adequate storage areas for collection and storage of recyclable waste materials.
4. **GHG Emissions Associated with Environmental Quality.** The Project must meet strict standards for covering of duct openings and protection of mechanical equipment during constructions, and meet other requirements for reducing emissions from flooring systems, any CFC and halon use, and other Project amenities. These energy conservation measures would reduce energy use and the GHG emissions that come from energy generation. This would include:
- Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate gas, plumbing, electrical lines and other necessary penetrations must be sealed in compliance with the California Energy Code.
 - Provide flashing details on the building plans which comply with accepted industry standards or manufacturer's instructions around windows and doors, roof valley, and chimneys to roof intersections.

c. Consistency with Plans - Conclusion

The Project is a single-family residence that would be consistent with applicable State and local GHG reduction strategies. Thus, given the Project's consistency with

³⁰ Title 24, California Code of Regulations, Part 11 (CALGreen), Sections 4.408 and 5.408, 2010.

State and City of Los Angeles GHG emission reduction goals and objectives, the Project would not conflict with any applicable plans, policies, or regulations of an agency adopted for the purpose of reducing the emissions of GHGs. Furthermore, because the Project is consistent and does not conflict with these plans, policies, and regulations, the Project's incremental increase in GHG emissions as described above would not result in a significant impact on the environment. **Therefore, Project-specific impacts with regard to climate change would be less than significant.**

4. Cumulative Impacts

The Project is consistent with the approach outlined in CARB's *Climate Change Scoping Plan*, particularly its emphasis on the identification of emission reduction opportunities that promote economic growth while achieving greater energy efficiency and accelerating the transition to a low-carbon economy. In addition, as recommended by CARB's *Climate Change Scoping Plan*, the Project would use "green building" features as a framework for achieving cross-cutting emissions reductions as new buildings and infrastructure would be designed to achieve the standards of CALGreen.

As described earlier in this section, the Project would result in minimal GHG emissions. In addition, the five related projects all propose single-family homes, like the Project. Therefore, the cumulative GHG emissions of the Project combined with the five related projects would be minor. The climate action plans adopted at the State, regional, and local level are designed to reduce the magnitude of emissions within California and advance the State's goals at reducing emissions over time.

Thus, given the Project's consistency with State, regional, and City of Los Angeles GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. **In the absence of adopted standards and established significance thresholds, and given this consistency, it is concluded that the Project's impacts are cumulatively less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts with regard to greenhouse gas emissions would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

H. Hazards and Hazardous Materials

1. Introduction

This section evaluates the Project's potential impacts related to hazards and hazardous materials. The analysis in this section evaluates whether the Project would create a significant hazard to the public or the environment due to hazardous conditions and/or hazardous materials. A summary of applicable regulations and hazardous waste standards is also provided in this section. In addition, the potential cumulative impacts related to hazards and hazardous waste associated with the Project, in combination with all known related projects are evaluated.

Hazardous materials generally are substances which, by their nature and reactivity, have the capability of causing harm or a health hazard during normal exposure or an accidental release or mishap, and are characterized as being toxic, corrosive, flammable, reactive, an irritant, or strong sensitizer. The term "hazardous substances" encompasses chemicals regulated by both the United States Department of Transportation's (DOT) "hazardous materials" regulations and the United States Environmental Protection Agency's (EPA) "hazardous waste" regulations, including emergency response. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. A designation of "acutely" or "extremely" hazardous refers to specific listed chemicals and quantities.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

a. Federal Resource Conservation and Recovery Act

The Federal Resource Conservation and Recovery Act (RCRA) (Title 40 of the Code of Federal Regulations [CFR]) gives the U.S. Environmental Protection Agency (USEPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste by "large-quantity generators" (1,000 kilograms/month or more). Under RCRA

regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed at a facility, any treatment, storage, or disposal unit must be permitted under RCRA. Additionally, all hazardous waste transporters are required to be permitted and must have an identification number. RCRA allows individual states to develop their own program for the regulation of hazardous waste, as long as the regulations are as stringent as the RCRA's.

b. Federal Occupational Safety and Health Act

The Federal Occupational Safety and Health Act of 1970, which is implemented by the Federal Occupational Safety and Health Administration (OSHA), contains provisions with respect to hazardous materials handling. Federal OSHA requirements, as set forth in Title 29 of the Code of CFR, are designed to promote worker safety, worker training, and a worker's right-to-know. The State is responsible for administering OSHA regulations.

c. Code of Federal Regulations Title 49

Title 49 of the CFR specifies additional requirements and regulations with respect to the transport of hazardous materials.¹ Title 49 of the CFR requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Drivers are also required to be trained in function and commodity specific requirements. In addition, vehicles transporting certain types or quantities of hazardous materials must display placards (warning) signs. Transporters of hazardous wastes must be permitted and have an identification number.

(2) State

a. Department of Toxic Substances Control

At the State level, authority for the statewide administration and enforcement of RCRA is enforced through the California EPA's (Cal-EPA) Department of Toxic Substances Control (DTSC). While the DTSC has primary state responsibility in regulating the generation, storage and disposal of hazardous materials, DTSC may further delegate enforcement authority to local jurisdictions. In addition, the DTSC is

¹ Title 49 of the CFR contains the regulations set forth by the Hazardous Materials Transportation Act of 1975.

responsible and/or provides oversight for contamination cleanup, and administers statewide hazardous waste reduction programs. DTSC operates programs to accomplish the following: (1) deal with the aftermath of improper hazardous waste management by overseeing site cleanups; (2) prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly; and (3) evaluate soil, water, and air samples taken at sites.

b. Division of Occupational Safety and Health

The California OSHA (Cal-OSHA) program is administered and enforced by the Division of Occupational Safety and Health (DOSH). The Cal-OSHA program is similar to the Federal OSHA program in that both programs contain rules and procedures related to exposure to hazardous materials during demolition and construction activities. In addition, Cal-OSHA requires employers to implement a comprehensive, written Injury and Illness Prevention Program (IIPP). An IIPP is an employee safety program for potential workplace hazards, including those associated with hazardous materials.

c. The Hazardous Waste Source Reduction and Management Review Act

The Hazardous Waste Source Reduction and Management Review Act of 1989 require generators of 12,000 kilograms/year of typical/operational hazardous waste to conduct an evaluation of their waste streams every four years and to select and implement viable source reductions alternatives. This Act does not apply to non-typical hazardous waste (such as asbestos and polychlorinated biphenyls). The California Vehicle Code also states that every motor carrier transporting hazardous materials must have a Hazardous Materials Transportation License issued by the California Highway Patrol and the appropriate placards, as required.

(3) Regional

a. Regional Water Quality Control Board

Underground storage tanks (USTs) are regulated under Subtitle I of RCRA and its implementing regulations, which establish construction standards for new UST installations, as well as standards for upgrading existing USTs and associated piping. After 1998, all non-conforming tanks were required to be either upgraded or closed.

The storage of hazardous materials in USTs is regulated by Cal-EPA's State Water Resources Control Board (SWRCB), which has delegated authority to each of the Regional Water Quality Control Boards (RWQCBs) and, typically on the local level, to the local fire department. The State's UST program regulations include, among others,

permitting USTs, installation of leak detection systems and/or monitoring of USTs for leakage, UST closure requirements, release reporting/corrective action, and enforcement. The Los Angeles Fire Department (LAFD) administers and enforces federal and state laws and local ordinances for USTs at the Project site. Plans for the construction/installation, modification, upgrade, and removal of USTs are reviewed by LAFD Inspectors.

(4) Local

a. City of Los Angeles General Plan Safety Element

Policies related to hazardous materials are governed by the City's General Plan, which includes a Safety Element. Adopted on November 26, 1996, the Element includes the following goals, objectives, and policies that relate directly or indirectly to hazardous materials:

- Goal 1: A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to fire, water related hazard, seismic event, geologic conditions or release of hazardous materials disasters is minimized.
 - Objective 1.1: Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City's comprehensive emergency response and recovery plans and programs.
 - Policy 1.1.4: Protect the public and workers from the release of hazardous materials and protect City water supplies and resources from contamination resulting from accidental release or intrusion resulting from a disaster event, including protection of the environment and public from potential health and safety hazards associated with program implementation.
- Goal 2: A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage and disruption of the social and economic life of the City and its immediate environs.
 - Objective 2.1: Develop and implement comprehensive emergency response plans and programs that are integrated with each other and with the City's comprehensive hazard mitigation and recovery plans and programs.
 - Policy 2.1.2: Develop and implement procedures to protect the environment and public, including animal control and care, to the

greatest extent feasible within the resources available, from potential health and safety hazards associated with hazard mitigation and disaster recovery efforts.

- Goal 3: A city where private and public systems, services, activities, physical condition and environment are reestablished as quickly as feasible to a level equal to or better than that which existed prior to the disaster.
 - Objective 3.1: Develop and implement comprehensive disaster recovery plans which are integrated with each other and with the City's comprehensive hazard mitigation and emergency response plans and programs.
 - Policy 3.1.2: Develop and establish procedures for identification and abatement of physical and health hazards which may result from a disaster. Provisions shall include measures for protecting workers, the public and the environment from contamination or other health and safety hazards associated with abatement, repair and reconstruction programs.

b. City of Los Angeles Municipal Code (LAMC)

Various sections of the LAMC set forth regulations and standards regarding hazardous materials and related safety issues. Specific regulations of note are listed below.

- LAMC Chapter V, Article 7, Section 57.101 et seq. (Fire Code): The LAFD is the Certified Unified Program Agency (CUPA) that regulates hazardous materials, hazardous waste, and storage tanks in the City. In particular, LAMC Section 57.120 et seq. addresses a variety of hazardous waste and hazardous materials programs covered under the state Unified Hazardous Waste and Hazardous Materials Management Regulatory Program; LAMC Section 57.121 et seq. addresses the disclosure of hazardous substances; LAMC Section 57.320 et seq. addresses asbestos abatement; and LAMC Section 57.5001 et seq. contains general requirements regarding hazardous materials, including storage tanks.
- LAMC Chapter IX, Article I, Division 61, Section 91.6105 (Separation from Oil Wells): This section regulates the placement of certain buildings and structures within specified distances from any oil well.

- LAMC Chapter IX, Article I, Division 71, Section 91.7103 et seq. (Methane Seepage Regulations): These regulations address the control of methane intrusion emanating from geologic formations. Development in areas classified as a Methane Zone or Methane Buffer Zone must meet specified requirements. The City's methane mitigation requirements currently require a methane site assessment to establish the appropriate methane mitigation level for design of the building methane mitigation system.

c. City of Los Angeles Fire Department

At the local level, the Los Angeles Fire Department (LAFD) monitors the storage of hazardous materials in the City of Los Angeles (City) for compliance with local requirements. Specifically, businesses and facilities which store more than threshold quantities of hazardous materials as defined in Chapter 6.95 of the California Health and Safety Code are required to file an Accidental Risk Prevention Program with the LAFD. This program includes information such as emergency contacts, phone numbers, facility information, chemical inventory, and hazardous materials handling and storage locations.

b. Existing Conditions

The Project Site is located in the middle of Runyon Canyon Park and was developed with what is currently known as the Headley/Handley House in approximately 1945.² The Headley/Handley House would remain intact with development of the Project, and the proposed home would constructed along the western side of a modified prominent ridge on the Project Site. There are no known hazardous materials or waste conditions occurring on the Project Site.^{3, 4}

² A multi-use storage, garage, and stable structure was constructed on the Project Site in 1945. In 1949, the structure was converted to living quarters.

³ State Water Resources Control Board, GeoTracker, website: https://geotracker.waterboards.ca.gov/search?CMD=search&case_number=&business_name=&main_street_name=3003+Runyon+Canyon+Road&city=Los+Angeles+&zip=90046&county=&SITE_TYPE=LUFT&SITE_TYPE=SLIC&SITE_TYPE=LANDFILL&SITE_TYPE=DOD%2C+DODPRIV%2C+DODUST&SITE_TYPE=WDR&SITE_TYPE=IRRIGATED_LANDS&SITE_TYPE=SAMPPOINTPUBLIC&SITE_TYPE=UST&SITE_TYPE=NONCLEANUP&SITE_TYPE=PROJECT&SITE_TYPE=CAF&SITE_TYPE=WATERPONDS&SITE_TYPE=INJECTION&SITE_TYPE=GWMPLAN&SITE_TYPE=GWMPEX&SITE_TYPE=OTHEROILGAS&oilfield=&STATUS=&BRANCH=&MASTER_BASE=&Search=Search, accessed April 17, 2019.

⁴ Department of Toxic Substances Control, EnviroStor, website: <https://www.envirostor.dtsc.ca.gov/public/search?CMD=search&ocieerp=&HWMP=False&busine>

3. Environmental Impacts

a. Thresholds of Significance

In 2015, the California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (“*CBIA v. BAAQMD*”), held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of a project. The revised thresholds are intended to comply with this decision. Specifically, the decision held that an impact from the existing environment to the project, including future users and/or residents, is not an impact for purposes of CEQA. However, if the project, including future users and residents, exacerbates existing conditions that already exist, that impact must be assessed, including how it might affect future users and/or residents of the project. For example, if construction of the project on a hazardous waste site will cause the potential dispersion of hazardous waste in the environment, the EIR should assess the impacts of that dispersion to the environment, including to the project’s residents. Thus, in accordance with Appendix G of the State CEQA Guidelines and the *CBIA v. BAAQMD* decision, the Project would have a significant impact related to hazards and hazardous materials if it would:

Threshold a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or

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

Threshold c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or

Threshold d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment caused in whole or in part from the project’s exacerbation of existing environmental conditions; or

[ss_name=&main_street_name=3003+Runyon+Canyon+Road&city=Los+Angeles&zip=90046&county=&censustract=&case_number=&apn=&Search=Get+Report](#), accessed April 17, 2019.

Threshold e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area; or

Threshold f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

Threshold g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

Risk of Upset/Emergency Preparedness

- *Compliance with the regulatory framework;*
- *The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance;*
- *The degree to which the project may require a new, or interfere with an existing, emergency response or evacuation plan, and the severity of the consequences; and*
- *The degree to which project design will reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance.*

Human Health Hazards

- *Compliance with the regulatory framework for the health hazard;*
- *The probable frequency and severity of consequences to people from exposure to the health hazard; and*
- *The degree to which project design would reduce the frequency of exposure or severity of consequences of exposure to the health hazard.*

b. Methodology

To evaluate impacts related to hazards and hazardous materials associated with construction and operation of the Project, a review of present and historic uses on the Project Site was conducted. In addition, an examination was made to determine whether the location of the Project Site occurs within a wildland fire area or along an adopted emergency response plan. As part of the analysis, a computerized search and

review of State and federal standard environmental databases was completed. These databases included the GeoTracker Database from the State Water Resources Control Board website; and the Envirostor Database from the DTSC website.

c. Project Design Features

No specific project design features are proposed with regard to hazards and hazardous materials.

d. Analysis of Project Impacts

Threshold a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **A less than significant impact would occur with respect to Threshold a). No further analysis is required.**

Threshold b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), with compliance with regulatory requirements, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **A less than significant impact would occur with respect to Threshold b). No further analysis is required.**

Threshold c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), the Project Site is not located within 0.25 mile of a school.⁵ Further, the Project would use, at most, minimal amounts of hazardous materials for routine cleaning and maintenance that would be contained,

⁵ *NavigateLA, Schools Layer: <http://navigatela.lacity.org/navigatela/>*

stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations, and as noted above, would not be located within 0.25 mile of an existing or proposed school. **Therefore, no impact would occur with respect to Threshold c). No further analysis is required.**

Threshold d) Is the Project located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment caused in whole or in part from the project's exacerbation of existing environmental conditions?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), the Project Site has not been identified as a solid waste disposal site having hazardous waste levels outside of the Waste Management Unit.⁶ Also, the Project Site is not subject to corrective action pursuant to the Health and Safety Code, as it has not been identified as a hazardous waste facility.⁷ Therefore, the Project would not exacerbate existing environmental conditions (i.e., be located on a Cortese site list) and would not create a significant hazard. **Therefore, no impact would occur with respect to Threshold d). No further analysis is required.**

Threshold e) Is the Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard or excessive noise for people residing or working in the project area?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study included as Appendix A, the Project Site is not located within two miles of an airport, private airstrip, or within an area subject to an airport land use plan. The Project Site is not located in the vicinity of a public airport or private airstrip. Further, as discussed in Section IV.K, Noise, operation of the Project would not result in excessive noise for people residing or working in the Project area.

⁶ State of California Environmental Protection Agency, Cortese List Data Resources, Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit, website: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf>, accessed February 2017.

⁷ State of California Environmental Protection Agency, Cortese List Data Resources, Cortese List: Section 65962.5(a), website: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm#Facilities>, accessed February 2017.

Therefore, the Project would not have the potential to exacerbate current environmental conditions that would result in a safety hazard and no impact would occur with respect to Threshold e). No further analysis is required.

Threshold f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

(1) Construction

A Construction Traffic Management Plan (formally identified as TR-PDF-1 in Section IV.M, Transportation/Traffic, of this Draft EIR) including street closure information, detour plans, haul routes (if required), and staging plans would be prepared and submitted to the City for review and approval. The Construction Traffic Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community, including ensuring pedestrian and bicycle safety. **Implementation of the Construction Traffic Management Plan would ensure that impacts related to emergency response/evacuation during construction would be less than significant.**

(2) Operation

Vehicular access to the Project would be provided via an existing driveway along North Runyon Canyon Road, which is accessed from Mulholland Drive. Emergency access is also available to the ridge via the hiking trail, which has been recently paved. As such, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. **Therefore, Project impacts with respect to emergency response/evacuation during operation would be less than significant.** See also Section IV.L, Public Services—Fire Protection, of this Draft EIR, for a detailed analysis regarding emergency response.

Threshold g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The Project Site is located within a Very High Fire Hazard Severity Zone,⁸ and is also located within a designated Fire Buffer Zone or Mountain Fire District in the 1996

⁸ City of Los Angeles, ZIMAS Parcel Profile Report, [website://zimas.lacity.org](http://zimas.lacity.org), accessed September 6, 2018.

City of Los Angeles Safety Element.⁹ As discussed in greater detail in Section IV.L, Public Services – Fire Protection, the Project would only nominally increase the need for fire protection services at the Project Site as the Project involves an increase in the developed square footage on the Project Site, but not an increase in residents at the Project Site. In addition, the LAFD currently serves both the existing residence on the Project Site and also the hikers in Runyon Canyon Park. Based on the Project Site's location within a Very High Fire Hazard Severity Zone, the Project Applicant currently follows fuel modification requirements and maintains an approximately 2.88 acres of fuel modification zones as required by the LAFD. The maintenance of the fuel modification zones would continue with development of the Project. In addition, an automatic fire sprinkler system would be installed in the proposed home. The Project would not exacerbate any conditions that contribute to the existing wildland fire hazard classification. **Installation of an automatic fire sprinkler system, coupled with compliance with existing regulations (including the City Fire Code, California Fire Code, City Building Code, and National Fire Protection Association Standards), would ensure that impacts associated with wildland fires are less than significant.**

4. Cumulative Impacts

The locations of the five related projects in the Project vicinity are shown in Figure III-7, Related Projects Location Map. Generally, the impacts with respect to hazards and hazardous materials on each site are specific to that site and its users and would not be in common or contribute to (or shared with, in an additive sense) the impacts on other sites. As shown in Figure III-7, none of the related projects are in close enough proximity to the Project Site to result in cumulative impacts with respect to hazardous or hazardous materials. Further, the related projects may be subject to discretionary or ministerial review, which would be responsible for assessing potential hazards risks associated with those related projects, and if necessary, the applicants of those projects would be required to implement measures appropriate for the type and extent of hazardous materials present and the land use proposed to reduce the risk associated with the hazardous materials to an acceptable level. Similar to the Project, each of the related projects would be required to comply with all applicable local, state, and federal laws, rules, and regulations related to hazards. As stated previously, the Project would not result in any significant impacts related to hazards and hazardous materials. **With full compliance with all applicable local, state, and federal laws, rules and regulations, as well as implementation of site-specific**

⁹ *City of Los Angeles, Safety Element of the General Plan, Selected Wildfire Hazard Areas, Exhibit D.*

recommendations for the related projects, cumulative impacts related to hazards and hazardous materials would be less than significant.

5. Mitigation Measures

Project-level and cumulative impacts related to hazards and hazardous materials would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

I. Hydrology and Water Quality

1. Introduction

This section provides an analysis of the Project's potential hydrology and water quality impacts, including potential impacts associated with drainage and water quality standards.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

a. Clean Water Act

The Clean Water Act was first introduced in 1948 as the Water Pollution Control Act. The Clean Water Act authorizes Federal, state, and local entities to cooperatively create comprehensive programs for eliminating or reducing the pollution of state waters and tributaries. The primary goals of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. As such, the Clean Water Act forms the basic national framework for the management of water quality and the control of pollutant discharges. The Clean Water Act also sets forth a number of objectives in order to achieve the abovementioned goals. These objectives include regulating pollutant and toxic pollutant discharges; providing for water quality that protects and fosters the propagation of fish, shellfish and wildlife; developing waste treatment management plans; and developing and implementing programs for the control of non-point sources of pollution.¹

Since its introduction, major amendments to the Clean Water Act have been enacted (e.g., 1961, 1966, 1970, 1972, 1977, and 1987). Amendments enacted in 1970

¹ *Non-point sources of pollution are carried through the environment via elements such as wind, rain, or stormwater and are generated by diffuse land use activities (such as runoff from streets and sidewalks or agricultural activities) rather than from an identifiable or discrete facility.*

created the U.S. Environmental Protection Agency (USEPA), while amendments enacted in 1972 deemed the discharge of pollutants into waters of the United States from any point source unlawful unless authorized by a USEPA National Pollutant Discharge Elimination System (NPDES) permit. Amendments enacted in 1977 mandated development of a “Best Management Practices” Program at the state level and provided the Water Pollution Control Act with the common name of “Clean Water Act,” which is universally used today. Amendments enacted in 1987 required the USEPA to create specific requirements for discharges.

In response to the 1987 amendments to the Clean Water Act and as part of Phase I of its NPDES permit program, the USEPA began requiring NPDES permits for: (1) municipal separate storm sewer systems (MS4) generally serving, or located in, incorporated cities with 100,000 or more people (referred to as municipal permits); (2) 11 specific categories of industrial activity (including landfills); and (3) construction activity that disturbs five acres or more of land. Phase II of the USEPA’s NPDES permit program, which went into effect in early 2003, extended the requirements for NPDES permits to: (1) numerous small municipal separate storm sewer systems,² (2) construction sites of one to five acres, and (3) industrial facilities owned or operated by small municipal separate storm sewer systems. The NPDES permit program is typically administered by individual authorized states.

In 2008, the USEPA published draft Effluent Limitation Guidelines (ELGs) for the construction and development industry. On December 1, 2009 the EPA finalized its 2008 Effluent Guidelines Program Plan.

In California, the NPDES stormwater permitting program is administered by the State Water Resources Control Board (SWRCB). The SWRCB was created by the Legislature in 1967. The joint authority of water distribution and water quality protection allows the Board to provide protection for the State’s waters, through its nine Regional Water Quality Control Boards (RWQCBs). The RWQCBs develop and enforce water quality objectives and implement plans that will best protect California’s waters, acknowledging areas of different climate, topography, geology, and hydrology. The RWQCBs develop “basin plans” for their hydrologic areas, issue waste discharge

²

A small municipal separate storm sewer system (MS4) is any MS4 not already covered by the Phase I program as a medium or large MS4. The Phase II Rule automatically covers on a nationwide basis all small MS4s located in “urbanized areas” as defined by the Bureau of the Census (unless waived by the NPDES permitting authority), and on a case-by-case basis those small MS4s located outside of urbanized areas that the NPDES permitting authority designates.

requirements, enforce action against stormwater discharge violators, and monitor water quality.³

b. Federal Antidegradation 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.

(2) State

a. Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the legal and regulatory framework for California's water quality control. The California Water Code authorizes the SWRCB to implement the provisions of the CWA, including the authority to regulate waste disposal and require cleanup of discharges of hazardous materials and other pollutants.

As discussed under the California Water Code (CWC), the State of California is divided into nine RWQCBs, governing the implementation and enforcement of the CWC and CWA. The Project Site is located within Region 4, also known as the Los Angeles Region. Each RWQCB is required to formulate and adopt a Basin Plan for its region. This Basin Plan must adhere to the policies set forth in the CWC and established by the SWRCB. The RWQCB is also given authority to include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

b. California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a

³ USEPA. U.S. Environmental Protection Agency - Clean Water Act. July 2011. <<http://www.epa.gov/lawsregs/laws/cwa.html>>., accessed February 14, 2017.

water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

c. California Toxic Rule

In 2000, the EPA promulgated the California Toxic Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The EPA promulgated this rule based on the EPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxic Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles RWQCB (LARWQCB) as having beneficial uses protective of aquatic life or human health.

d. NPDES Permit Program

The NPDES permit program was first established under authority of the CWA to control the discharge of pollutants from any point source into the waters of the United States during both construction and operation. As indicated above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs.

e. SWRCB Order No. 2012-0006-DWQ (The General Permit)

SWRCB Order No. 2012-0006-DWQ known as "The General Permit" was adopted on July 17, 2012. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects by identifying three project risk levels. The main objectives of the General Permit are to:

1. Reduce erosion
2. Minimize or eliminate sediment in stormwater discharges
3. Prevent materials used at a construction site from contacting stormwater
4. Implement a sampling and analysis program
5. Eliminate unauthorized non-stormwater discharges from construction sites
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects
7. Establish maintenance commitments on post-construction pollution control measures

California mandates all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of Best Management Practices (BMPs) for a specific construction project, charging owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit.^{4,5}

(3) Regional

a. Los Angeles County Department of Public Works Hydrology Manual

Per the City of Los Angeles (City) Special Order No. 007-1299, December 3, 1999, the City has adopted the Los Angeles County (County) Department of Public Works Hydrology Manual as its basis of design for storm drainage facilities. The Hydrology Manual requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event. The County also limits the allowable discharge into existing storm drain facilities based on the municipal separate storm sewer systems (MS4) Permit, which is enforced on all new developments that discharge directly into the County's storm drain system. Any proposed drainage improvements of County owned storm drain facilities such as catch basins and storm drain lines require review and approval from the Los Angeles County Flood Control District (LACFCD).

b. Los Angeles County Municipal Storm Water System (MS4) Permit

USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4. On November 8, 2012, the LARWQCB adopted Order No. R4-2012-0175 under the CWA and the Porter-Cologne Act. This Order is the NPDES permit or MS4 permit for municipal stormwater and urban runoff discharges within Los Angeles County. The requirements of this Order (the "Permit") cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, the Los Angeles County Flood Control District is designated as the Principal Permittee. The Permittees are the 84 Los Angeles County cities (including the City of Los Angeles) and Los Angeles County. Collectively, these are the "Co-Permittees". The Principal Permittee helps to facilitate activities

⁴ State Water Resources Control Board. State Water Resources Control Board. July 2012, http://www.swrcb.ca.gov/water_issues/programs/npdes/.

⁵ USEPA. U.S. Environmental Protection Agency - NPDES. July 2012, <https://www.epa.gov/npdes>.

necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Permittees.

c. Stormwater Quality Management Program (SQMP)

In compliance with the Permit, the Co-Permittees are required to implement a stormwater quality management program (SQMP) with the goal of accomplishing the requirements of the Permit and reducing the amount of pollutants in stormwater runoff. The SWMP 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 jurisdictions;
- 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.

(4) Local

a. Los Angeles Municipal Code

Any proposed drainage improvements within the street right of way or any other property owned by or under the control of the City requires the approval of a B-permit (Section 62.105, Los Angeles Municipal Code (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. Additionally, any connections to the City's storm drain system from a private property to a City catch basin or an underground storm drain pipe requires a storm drain connection permit from Bureau of Engineering.

Section 64.70 of the LAMC sets forth the City's Stormwater 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, 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.

Additionally, unless otherwise permitted by a NPDES permit, the ordinance prohibits industrial and commercial developments from discharging untreated wastewater or untreated runoff into the storm drain system. Furthermore, the ordinance prohibits trash or any other abandoned objects/materials from being deposited such that they could be carried into the storm drains. Lastly, the ordinance not only makes it a crime to discharge pollutants into the storm drain system and imposes fines on violators, but also gives City public officers the authority to issue citations or arrest business owners or residents who deliberately and knowingly dump or discharge hazardous chemicals or debris into the storm drain system.

Earthwork activities, including grading, are governed by the Los Angeles Building Code, which is contained in 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.

b. City of Los Angeles Water Quality Compliance Master Plan for Urban Runoff (WQCMPUR)

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 WQCMPUR was developed by the Bureau of Sanitation, Watershed Protection Division in collaboration with stakeholders to address the requirements of this Council Motion. The primary goal of the WQCMPUR is to help meet water quality

regulations. Implementation of the WQCMPUR is intended over the next 20 to 30 years to 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 WQCMPUR 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 Best Management Practices (BMPs) that are being implemented by the City, discusses existing Total Maximum Daily Load (TMDL) Implementation Plans and Watershed Management Plans. Additionally, the WQCMPUR 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 watershed 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.

The WQCMPUR includes a financial plan that provides a review of current sources of revenue, estimates costs for water quality compliance, and identifies new potential sources of revenue.

c. City of Los Angeles Stormwater Program

The City of Los Angeles supports the policies of the Construction General Permit and the Los Angeles County NPDES permit through the Development Best Management Practices Handbook. Part A Construction Activities, 3rd Edition, and associated ordinances were adopted in September 2004. Part B Planning Activities, 4th Edition was adopted in June 2011. The Handbook provides guidance for developers in complying with the requirements of the Development Planning Program regulations of the City's Stormwater Program. Compliance with the requirements of this manual is required by City of Los Angeles Ordinance No. 173,494. 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 Notice of Intent (NOI) with the SWRCB. The NOI informs the SWRCB of a particular project and results in the issuance of a Waste Discharger Identification (WDID) number, which is needed to demonstrate compliance with the General Permit.

The City of Los Angeles implements the requirement to incorporate stormwater BMPs through the City's plan review and approval process. During the review process, project plans are reviewed for compliance with the City's General Plan, 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. The Standard Urban Stormwater Mitigation Plan (SUSMP) provisions that are applicable to new residential and commercial developments include, but are not limited to, the following:⁶

- Peak Storm Water Runoff Discharge Rate: Post-development peak storm water runoff discharge rates shall not exceed the estimated pre-development rate for developments where the increased peak storm water discharge rate will result in increased potential for downstream erosion;
 - Provide storm drain system Stenciling and Signage (only applicable if a catch basin is built on-site);
 - Properly design outdoor material storage areas to provide secondary containment to prevent spills;
 - Properly design trash storage areas to prevent off-site transport of trash;
 - Provide proof of ongoing BMP Maintenance of any structural BMPs installed;
- Design Standards for Structural or Treatment control BMPs;
- Conserve natural and landscaped areas;
 - Provide planter boxes and/or landscaped areas in yard/courtyard spaces;
 - Properly design trash storage areas to provide screens or walls to prevent off-site transport of trash; and
 - Provide proof on ongoing BMP maintenance of any structural BMPs installed.

⁶ City of Los Angeles Stormwater Program website, <http://www.lastormwater.org/green-la/standard-urbanstormwater-mitigation-plan/>; accessed February 14, 2017.

Design Standards for Structural or Treatment Control BMPs:

- Post-construction treatment control BMPs are required to incorporate, at minimum, either a volumetric or flow based treatment control design or both, to mitigate (infiltrate, filter or treat) storm water runoff.

In addition, project applicants subject to the SUSMP requirements must select source control and, in most cases, treatment control BMPs from the list approved by the RWQCB. The BMPs must control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency. Further, the source and treatment control BMPs must be sufficiently designed and constructed to collectively treat, infiltrate, or filter stormwater runoff from one of the following:

- The 85th percentile 24-hour runoff event determined as the maximized capture stormwater volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998);
- The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook—Industrial/Commercial, (1993);
- The volume of runoff produced from a 0.75-inch storm event, prior to its discharge to a stormwater conveyance system; or
- The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for “treatment” (0.75-inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

d. Low Impact Development (LID) Ordinance

In October 2011, the City of Los Angeles passed an ordinance (Ordinance No. 181899) amending LAMC Chapter VI, Article 4.4, Sections 64.70.01 and 64.72 to expand the applicability of the existing SUSMP requirements by imposing rainwater Low Impact Development (LID) strategies on projects that require building permits. The LID ordinance became effective on May 12, 2012. LID is a stormwater management strategy with goals to mitigate the impacts of increased runoff and stormwater pollution as close to its source as possible. LID promotes the use of natural infiltration systems, evapotranspiration, and the reuse of stormwater. The goal of these LID practices is to

remove nutrients, bacteria, and metals from stormwater while also reducing the quantity and intensity of stormwater flows. Through the use of various infiltration strategies, LID is aimed at minimizing impervious surface area. Where infiltration is not feasible, the use of bioretention, rain gardens, green roofs, and rain barrels that will store, evaporate, detain, and/or treat runoff may be used.⁷ The intent of the City of Los Angeles LID standards is to:

- Require the use of LID practices in future developments and redevelopments to encourage the beneficial use of rainwater and urban runoff;
- Reduce stormwater/urban runoff while improving water quality;
- Promote rainwater harvesting;
- Reduce offsite runoff and provide increased groundwater recharge;
- Reduce erosion and hydrologic impacts downstream; and
- Enhance the recreational and aesthetic values in our communities.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a Project would have a significant impact related to hydrology and water quality if it would:

Threshold a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; or

Threshold b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede substantial groundwater management of the basin; or

Threshold c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

(i) result in substantial erosion or siltation on- or off-site;

⁷ City of Los Angeles. "Development Best Management Practices Handbook." June 2011.

(ii) substantially increase the rate of amount of surface runoff in a manner which would result in flooding on- or offsite;

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

(iv) impede or redirect flood flows;

Threshold d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

Threshold e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The L.A. CEQA Thresholds Guide (Thresholds Guide) identifies the following criteria to evaluate hydrology and water quality impacts:

Surface Water Hydrology

- 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; or
- 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.

Surface Water Quality

- Discharges associated with the project 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 stormwater permit or Water Quality Control Plan for the receiving water body.⁸

⁸ The CWC includes 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”.

Groundwater Level

- 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.

Groundwater Quality

- 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.

In assessing impacts related to hydrology and water quality in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the Thresholds Guide will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

“Contamination” means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or through the spread of disease. “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

b. Methodology

Within the regulatory framework described previously, the hydrology and water quality aspects of the Project were evaluated by comparing the existing and proposed conditions, pervious/impervious coverage, and flood maps and other hydrology-based hazards.

c. Project Design Features

No specific project design features are proposed with regards to hydrology and water quality.

d. Analysis of Project Impacts

Threshold a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and the Initial Study (Appendix A), a significant impact may occur if a project discharges water which does not meet the quality standards of agencies that regulate surface water quality and water discharge into stormwater drainage systems. Significant impacts would also occur if a project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB). These regulations include compliance with the City's Low Impact Development (LID) Ordinance and Storm Water Pollution Prevention Program (SWPPP). Also, the National Pollutant Discharge Elimination System (NPDES) program establishes a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable. Pursuant to the NPDES, the Project is subject to the requirements set forth in the County's Standard Urban Stormwater Mitigation Plan (SUSMP). The goals and objectives of the SUSMP are achieved through the use of Best Management Practices (BMPs) to help manage runoff water quality.

Overall, the Project will not generate or consume industrial waste discharge. However, the SUSMP identifies the types and sizes of private development projects that are subject to its requirements. As the Project includes a single-family residential development in a hillside area, it would be subject to the requirements of the SUSMP. Requirements of the SUSMP are enforced through the City's plan approval and permit process. Implementation of the aforementioned and compliance with the local, State, and federal regulations, code requirements, and permit provisions would prevent

significant impacts related to the release of potentially polluted discharge into surface water. **Thus, potential impacts would be less than significant and the Project would not substantially degrade surface or groundwater quality.**

Threshold b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

A significant impact may occur if a project includes deep excavations, which have the potential to interfere with groundwater movement, recharge, or withdrawal. According to the geotechnical report prepared for the Project Site (included in Appendix G of this Draft EIR), no groundwater was encountered during site exploration. Further, the Project does not propose any permanent groundwater wells or pumping activities, and all water supplied to the Project Site would be derived from the City's existing water supply and infrastructure. Therefore, the Project would not deplete groundwater supplies or recharge and the Project would not impede sustainable groundwater management of the basin. **As such, impacts related to groundwater management would be less than significant.**

Threshold c(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

A significant impact may occur if a project results in a substantial alteration of drainage patterns that would result in a substantial increase in erosion or siltation during construction or operation of the project. While the Project Site is located within Runyon Canyon Park along the western side of a previously modified prominent ridge on the Project Site, no natural watercourses, including streams and rivers, exist on or in the vicinity of the Project Site. Drainage from the Project Site currently flows in a southern direction down the Santa Monica Mountains and towards storm drains located further down the mountain, and will continue to do so after construction of the Project at the development site.

In addition, the Project would comply with LAMC Chapter IX, Division 70, which addresses erosion control during grading, excavation, and fill activities, as well as the SUSMP, which addresses erosion control through peak-flow reduction and infiltration features. Finally, development of the Project would not significantly increase overall stormwater runoff volume as the Project design includes green roofs planted with grass. Thus, the Project would not substantially alter the existing drainage pattern of the area

surrounding the Project Site such that it would result in substantial erosion or siltation on- or off-site. **Therefore, impacts related to erosion would be less than significant.**

Threshold c(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), a significant impact may occur if a project results in increased runoff volumes during construction or operation of the project that would result in flooding conditions affecting the Project Site or nearby properties. As discussed in the response to threshold (c)(i), above, no natural watercourses exist on or in the vicinity of the Project Site, and runoff flows toward the existing storm drains. Further, development of the Project would not significantly increase overall stormwater runoff volume as the Project design includes green roofs planted with grass. Therefore, no flooding is expected to occur on- or off-site. **Impacts related to surface runoff, including through the alteration of the course of a stream or river or the increase of impervious surface area, would therefore be less than significant.**

Threshold c(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), a significant impact may occur if a project would increase the volume of stormwater runoff to a level which exceeds the capacity of the storm drain system serving the Project Site, or if the Project would substantially increase the probability that polluted runoff would reach storm drains. Urban runoff discharged from municipal storm drains is one of the principal causes of water quality problems in most urban areas. Oil and grease from parking lots, pesticides, cleaning solvents, and other toxic chemicals can contaminate stormwater, which can then contaminate receiving waters downstream and, eventually, the Pacific Ocean. Construction of the Project could contribute to the degradation of existing surface water quality conditions primarily due to: 1) potential erosion and sedimentation

during the grading phase; 2) particulate matter from dirt and dust generated on the Site; and 3) construction activities and equipment. However, compliance with the requirements of the City's Low Impact Development Ordinance and/or SUSMP, would reduce the amount of additional stormwater runoff from the Project Site and the introduction of pollutants to stormwater runoff during construction and operation to the maximum extent practicable. Development of the Project would not significantly increase overall stormwater runoff volume as the Project design includes green roofs planted with grass.

Further, while the Project Site is located within Runyon Canyon Park along the western side of a previously modified prominent ridge on the Project Site, no natural watercourses, including streams and rivers, exist on or in the vicinity of the Project Site. Therefore, the Project would not have the potential to alter the course of a stream or river. Drainage from the Project Site currently flows in a southern direction down the Santa Monica Mountains and towards storm drains located further down the mountain, and will continue to do so after construction of the Project at the development site. The addition of the proposed residence to the Project Site would not increase the impervious area of the Project Site to such a degree that it would alter the existing drainage pattern of the area. **Therefore, this potential impact would be less than significant.**

Threshold c(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), the Project Site is not located within an area identified by Federal Emergency Management Agency (FEMA) as potentially subject to 100-year floods.⁹ The Site is not located within a City-designated 100-year or 500-year flood plain.¹⁰ As the Site is located in an area of minimal flooding, the Project would not introduce people or structures to an area of high flood risk, and would not exacerbate any existing flood conditions. As mentioned above, the addition of the proposed residence to the Project Site would not increase the impervious area of the Project Site to such a degree that it would alter the existing drainage pattern of the area, and there are no natural watercourses, including streams and rivers, on or in the vicinity of the Project Site. Therefore, the Project would not contain any significant risks of flooding and would not have the potential to impede or redirect floodwater flows. **No impact would occur.**

⁹ NavigateLA, FEMA Flood Hazard layer: <http://navigatea.lacity.org/navigatea/>, February 2017.

¹⁰ City of Los Angeles, Safety Element of the General Plan, 100-Year and 500-Year Flood Plains, Exhibit F.

Threshold d) *Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), the Project Site is not located within an area identified by Federal Emergency Management Agency (FEMA) as potentially subject to 100-year floods.¹¹ The Site is not located within a City-designated 100-year or 500-year flood plain.¹² Therefore, the Project Site is located in an area of minimal flooding.

Seiches are oscillations generated in enclosed bodies of water, which can be caused by ground shaking associated with an earthquake. Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. There are no water bodies located on-site. The Project Site is approximately 11 miles east of the Pacific Ocean, and the nearest enclosed body of water is the Hollywood Reservoir, which is located approximately one mile to the east. Further, a review of the City of Los Angeles Inundation and Tsunami Hazard Area Map indicates that the Project Site does not lie within an area subject to tsunamis or within a mapped inundation boundary.¹³ **Therefore, based on the distance of the Project Site from both the Pacific Ocean and the Hollywood Reservoir, as well as intervening structures, and the fact that the Project is not located within a City of Los Angeles mapped inundation boundary, no impact would occur with respect to inundation from flooding, a tsunami, or seiche.**

Threshold e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

As discussed in the response to threshold (a), above, the Project would comply with the following rules and programs related to water quality: the City's LID Ordinance; the SWPPP; the NPDES program; and the SUSMP. There are no other water quality control plans or groundwater management plans that would be applicable to the Project. **Impacts would therefore be less than significant.**

¹¹ *NavigateLA, FEMA Flood Hazard layer: <http://navigatea.lacity.org/navigatea/>, February 2017.*

¹² *City of Los Angeles, Safety Element of the General Plan, 100-Year and 500-Year Flood Plains, Exhibit F.*

¹³ *Ibid.*

4. Cumulative Impacts

Due to the site-specific nature of hydrology conditions (i.e., drainage, subsurface features, groundwater), hydrology impacts are typically assessed on a project-by-project basis, rather than on a cumulative basis.

The Project and the five related projects all consist of development of single-family homes. In addition, none of the related projects are in close enough proximity to the Project or to other related projects, such that they would result in cumulative impacts to hydrology and water quality. As discussed above, the Project would implement new BMPs that would control stormwater runoff quantity and quality. Likewise, the five related projects in the general Project vicinity would also be required to adhere to regulatory requirements that control storm water and pollutant discharges. Pursuant to the City's LID Ordinance, the related projects would be required to capture and manage the first three-quarters of an inch of runoff flow during storm events as defined in the City's SUSMP BMPs, through on or more of the City's preferred SUSMP improvements: on-site filtration, capture and reuse, or biofiltration/biotreatment BMPs, to the maximum extent feasible. Furthermore, future infill projects within the Project area are likely to be subject to more stringent BMPs (since BMPs are regularly updated) than what are in use under the existing conditions, and generally improve existing stormwater flows. As such, it is possible that future development would improve the quality of water draining from the area as water quality features for the related sites are implemented as requirements of project development. Additionally, each of the applicants of the applicable related projects would be required to prepare and implement a SWPPP and/or SUSMP and undergo a preliminary review by the City to determine what drainage improvements and BMPs would be required to ensure no significant water quality issues.

As discussed above, the Project would not result in any significant hydrology or water quality impacts. Similarly, taken together with the related projects, the Project would not create an impact that is cumulatively considerable because each related development project would have to comply with site-specific development standards and state water quality regulations. Compliance with these standards would ensure that the related projects would further the objectives of applicable regional water quality plans. **Therefore, cumulative impacts to hydrology and water quality would not be cumulatively considerable.**

5. Mitigation Measures

Project-level and cumulative impacts with regard to hydrology and water quality would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

J. Land Use and Planning

1. Introduction

This section of the Draft EIR provides an analysis of the Project's potential impacts with regard to land use and planning. The analysis in this section evaluates whether the Project would physically divide an established community and whether the Project is consistent with applicable land use policies. A summary of applicable regulations is also provided in this section. In addition, the potential cumulative impacts related to land use associated with the Project, in combination with all known related projects, are evaluated.

The information contained in this section is based, in part, on the following, which is included in Appendix J of this Draft EIR:

- J Mulholland Scenic Parkway Specific Plan Consistency Analysis, CAJA Environmental Services, August 2019.

2. Environmental Setting

a. Regulatory Framework

(1) City of Los Angeles General Plan

State law requires that every city and county prepare and adopt a General Plan. The City of Los Angeles General Plan (General Plan), originally adopted in 1974, is a comprehensive long-term document that provides principles, policies, and objectives to guide future development and to meet the existing and future needs of the City. The General Plan consists of a series of documents, including the seven elements mandated by the State of California: Land Use, Transportation, Noise, Safety, Housing, Open Space, and Conservation. In addition, the City's General Plan includes elements addressing Air Quality, Infrastructure Systems, Public Facilities and Services, Health and Wellness, as well as the Citywide General Plan Framework Element (Framework Element). The General Plan's Land Use Element is comprised of 35 local area plans known as community plans that guide land use at the local level. The following elements include policies adopted for the purpose of avoiding or mitigating an environmental effect.

a. City of Los Angeles Framework Element

The City's General Plan Framework Element, adopted in December 1996 and readopted in August 2001, contains goals, objectives, and policies that address land use and serves as a guide to update the community plans and the citywide elements. The Framework Element provides a base relationship between land use and transportation, and provides guidance for future updates to the various elements of the General Plan.

(i) Land Use Chapter

The Land Use Chapter of the Framework Element provides primary objectives to support the viability of the City's residential neighborhoods and commercial and industrial districts, and to encourage sustainable growth in appropriate locations. The Land Use chapter of the Framework Element contains Long Range Land Use Diagrams that depict the generalized distribution of centers, districts, and mixed-use boulevards throughout the City, but the community plans determine the specific land use designations for a particular site.

(ii) Open Space and Conservation Chapter

The Open Space and Conservation Chapter contains goals, objectives, and policies to guide the provision, management, and conservation of public open space resources; address the outdoor recreational needs of the City's residents; and guide amendments to the General Plan Open Space Element and Conservation Element. This chapter also includes policies to resolve the City's open space issues. Specifically, this chapter contains open spaces goals, objectives, and policies regarding resource conservation and management, outdoor recreation, public safety, community stability, and resources development.

The Open Space and Conservation Chapter of the Framework Element contains the following goal, objectives, and policies that would be applicable to the Project:

- 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 6.1.1: Consider appropriate methodologies to protect significant remaining open spaces for resource protection and

mitigation of environmental hazards, such as flooding, in and on the periphery of the City, such as the use of tax incentives for landowners to preserve their lands, development rights exchanges in the local area, participation in land banking, public acquisition, land exchanges, and Williamson Act contracts.

- Policy 6.1.2: Coordinate City operations and development policies for the protection and conservation of open space resources, by: a) Encouraging City departments to take the lead in utilizing water re-use technology, including graywater and reclaimed water for public landscape maintenance purposes and such other purposes as may be feasible; b) Preserving habitat linkages, where feasible, to provide wildlife corridors and to protect natural animal ranges; and c) Preserving natural viewsheds, whenever possible, in hillside and coastal areas.
- Objective 6.2: Maximize the use of the City's existing open space network and recreation facilities by enhancing those facilities and providing connections, particularly from targeted growth areas, to the existing regional and community open space system.
- Objective 6.3: Ensure that open space is managed to minimize environmental risks to the public.
 - Policy 6.3.1: Preserve flood plains, landslide areas, and steep terrain areas as open space, wherever possible, to minimize the risk to public safety.

b. Los Angeles General Plan Conservation Element

The City of Los Angeles General Plan includes a Conservation Element, which addresses the preservation, conservation, protection, and enhancement of the City's natural resources. Section 5 of the Conservation Element recognizes the City's responsibility for identifying and protecting its cultural and historical heritage. The Conservation Element established an objective to protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes and a corresponding policy to continue to protect historic and cultural sites and/or resources potentially affected by proposed land development, demolition, or property modification activities. Regarding open space, the Conservation Element refers to the Open Space Element for a discussion of open space aspects of the City, including park sites and urbanized spaces.

c. Los Angeles General Plan Open Space Element

The City of Los Angeles General Plan also includes an Open Space Element (the “Open Space Plan”), which includes definitions, objectives, policies, standards and criteria, programs, and a map, which are to be used when decisions are made pertaining to open space within the City of Los Angeles. The Open Space Plan map also designates existing open space land in public and private ownership, and designates lands that are considered to be desirable for open space use.

The Open Space Element contains the following goals that would be applicable to the Project:

- To ensure the preservation and conservation of sufficient open space to serve the recreational, environmental, health, and safety needs of the City.
- To conserve unique natural features, scenic areas, cultural and appropriate historical monuments for the benefit and enjoyment of the public.
- To provide access, where appropriate, to open space lands.

d. Hollywood Community Plan

The Project Site is located in the Hollywood Community Plan Area of the City of Los Angeles. The Community Plan is intended to promote an arrangement of land use, circulation, and services which will encourage and contribute to the economic, social and physical health, safety, welfare, and convenience of the Community, within the larger framework of the City; guide the development, betterment, and change of the Community to meet existing and anticipated needs and conditions; balance growth and stability; reflect economic potentials and limits, land development and other trends; and protect investment to the extent reasonable and feasible.

The City is currently in the process of updating the Hollywood Community Plan, the Hollywood Community Plan Update 2 (HCPU2).¹ Under the adopted Community Plan, which was last updated in 1988, the Project Site has a General Plan land use designation of Minimum Low Density Residential. This land use designation is meant to accommodate the development of single-family dwelling units and corresponds in the

¹ *Due to a Los Angeles Superior Court decision on the Plan’s Environmental Impact Report, the City Council took action on April 2, 2014, to rescind the 2012 Hollywood Community Plan Update (HCPU). As a result of this action, the City has reverted, by operation of law, to the 1998 Hollywood Community Plan and the zoning regulations that existed immediately prior to June 19, 2012 (the date of the adoption of the HCPU and ordinance).*

Hollywood Community Plan with the RD 40 zone. The HCPU2 does not propose any changes to the Project Site's land use designation from the adopted Community Plan.

e. Mulholland Scenic Parkway (Outer Corridor) Specific Plan

The Project Site is also located within the Outer Corridor of the Mulholland Scenic Parkway Specific Plan (MSPSP) area, which is defined as the area between 500-feet and one-half mile from the right-of-way along Mulholland Drive. The Los Angeles City Council adopted the MSPSP, Ordinance No. 167,943, on May 13, 1992. The MSPSP became effective on June 29, 1992. The intent of the MSPSP is to promote and preserve Mulholland Drive as a scenic parkway. The MSPSP is generally bounded by the Mulholland Drive right-of-way to the north and south; by the Hollywood Freeway to the east; and by Topanga Canyon Boulevard to the west. Mulholland Drive extends for approximately 20-miles within the MSPSP area. Most proposed projects, including the Project, within the MSPSP area are required to be submitted to the MSPSP Design Review Board (DRB) for approval to verify compliance with the intent of the MSPSP.

(2) Los Angeles Municipal Code

All development activity on the Project site is subject to the City of Los Angeles Municipal Code (LAMC), particularly Chapter 1, General Provisions and Zoning, also known as the City of Los Angeles Planning and Zoning Code (the Zoning Code). The Zoning Code includes development standards for the various districts in the City of Los Angeles. The entire Project Site is zoned as RE40-1-H (Residential Estate, Hillside Ordinance). The RE 40 zone (Residential Estate Zone) allows for one-family dwellings, parks, playgrounds, community centers, truck gardening, accessory living quarters, and home occupations. The Hillside Ordinance governs the height, floor area, and lot coverage of the Project Site, and allows a maximum height of 30 feet, a maximum floor area of 38,373 square feet, and a maximum lot coverage of 40%.

b. Existing Conditions

(1) Project Site

The approximately 4.5-acre Project Site is within the Runyon Canyon Park area of the City of Los Angeles, and is almost entirely vacant, with the exception of an existing single-family residence known as the Headley/Handley House, which was designated as Los Angeles Historic-Cultural Monument #563 on July 14, 1992. The height of the existing residence on the Project Site is 25 feet, and the existing residence would remain intact with development of the Project. The proposed construction footprint occurs within the previously altered and improved areas associated with the Headley/Handley House, as well as natural slopes with native brush cover.

(2) Surrounding Uses

The Site is surrounded by Runyon Canyon Park, which is public park land managed by the City of Los Angeles Department of Parks and Recreation and zoned OS-IXL. There is one other single-family residence within Runyon Canyon, located at 3050 Runyon Canyon Road (known as “Runyon Ranch”). Bordering the park in all directions are low-density zoned residential uses with the exception of multi-family residential uses along a portion of the southern park border near the Fuller Avenue park entrance.

Figures IV.J-1 and IV.J-2 show the land use designations and zoning for the Project Site and surrounding uses.

Hollywood Community Plan

General Plan Land Use Map A Part of the General Plan of the City of Los Angeles

<p>Land Use¹ Corresponding Zones¹</p> <p>Low Density¹⁷</p> <ul style="list-style-type: none"> Minimum RE40 Very Low II RE15, RE11 Low I RE9 Low II RS, R1 <p>Multiple Family¹⁷</p> <ul style="list-style-type: none"> Low Medium I³ R2, RDS, RD4, RD3 Low Medium II³ RD2, RD1.5 Medium⁴ R3 High Medium³ QJPR4 High R4, QJPR5¹⁷ <p>Project Site</p> <p>Service Systems</p> <ul style="list-style-type: none"> Public Elementary School Public Junior High Public Senior High Junior College Private Elementary School Private Senior High Private Special School Community Park Neighborhood Park Regional Park Public Golf Course <p>Circulation</p> <ul style="list-style-type: none"> Freeway Scenic Freeway Major Highway II Scenic Major Highway II Scenic Divided Major Highway II Secondary Highway Scenic Secondary Highway Scenic Divided Secondary Highway Scenic Arterial Mountain Scenic Parkway Collector Street Local Street County Road Park Road Private Street <p>Other Line Symbols</p> <ul style="list-style-type: none"> Community Boundary DWP Lines Historic Presentation Redevelopment Project Area Reservoir Line 	<p>Land Use¹ Corresponding Zones¹</p> <p>Commercial¹⁷</p> <ul style="list-style-type: none"> Limited Commercial^{11,12,2} CR C1, C1.S.P, RAS3, RAS4 Highway Oriented Commercial^{11,12,2} C1, C2.P, RAS3, RAS4 General Commercial^{11,12,2} C1, C2.P, RAS3, RAS4 Neighborhood Office Commercial^{7,11} C1, C2, C4.P, RAS3, RAS4 Community Commercial⁸ CR C2, C4.P, RAS3, RAS4 Regional Center Commercial⁸ C2, C4.P, RAS3, RAS4 <p>Industrial¹⁷</p> <ul style="list-style-type: none"> Commercial Manufacturing¹¹ C.M.P Limited Manufacturing¹¹ MR1, M1, P, PB <p>Open Space/Public Facilities¹⁷</p> <ul style="list-style-type: none"> Open Space^{18,19,20} OS A1 Public Facilities¹⁷ PF <p>Notes:</p> <ol style="list-style-type: none"> 1. Only those areas indicated in the table are recommended as indicated. 2. Certain areas may be subject to additional review. 3. Subject to state law. 4. Subject to state law. 5. Subject to state law. 6. Subject to state law. 7. Subject to state law. 8. Subject to state law. 9. Subject to state law. 10. Subject to state law. 11. Subject to state law. 12. Subject to state law. 13. Subject to state law. 14. Subject to state law. 15. Subject to state law. 16. Subject to state law. 17. Subject to state law. 18. Subject to state law. 19. Subject to state law. 20. Subject to state law.
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Scale (Feet) 0 1,000

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Source: Los Angeles Department of City Planning

Notes:

- A. The text of the Community Plan can be accessed on the City of Los Angeles' Web Page (<http://planning.lacity.org>).
- B. Other Special Area designations may not be included in this document.
- C. Parcel level information (plan designation and zoning) can be found on the City of Los Angeles Department of City Planning Zone Information & Map Access System (ZIMAS) web site (zimas.lacity.org).

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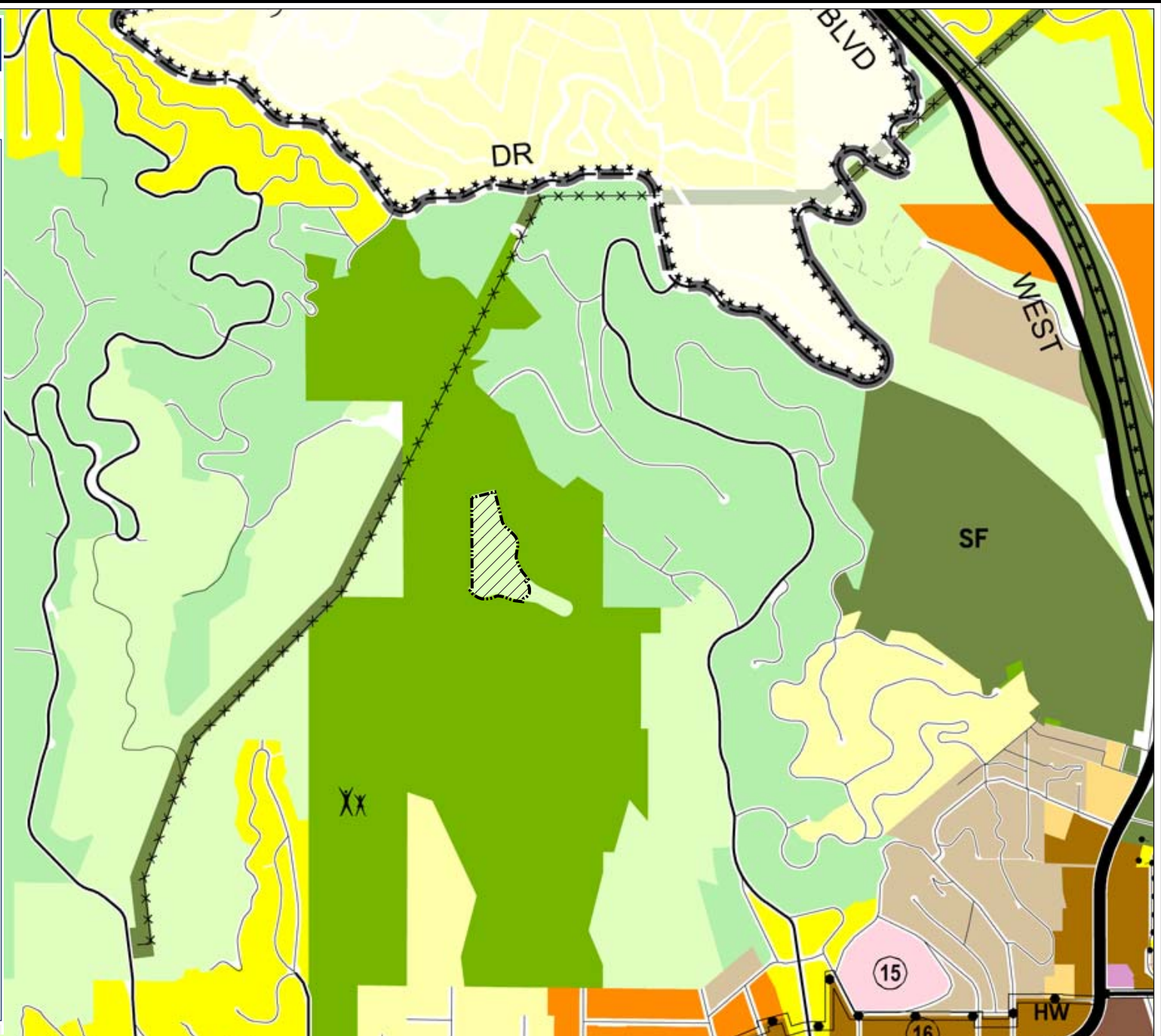
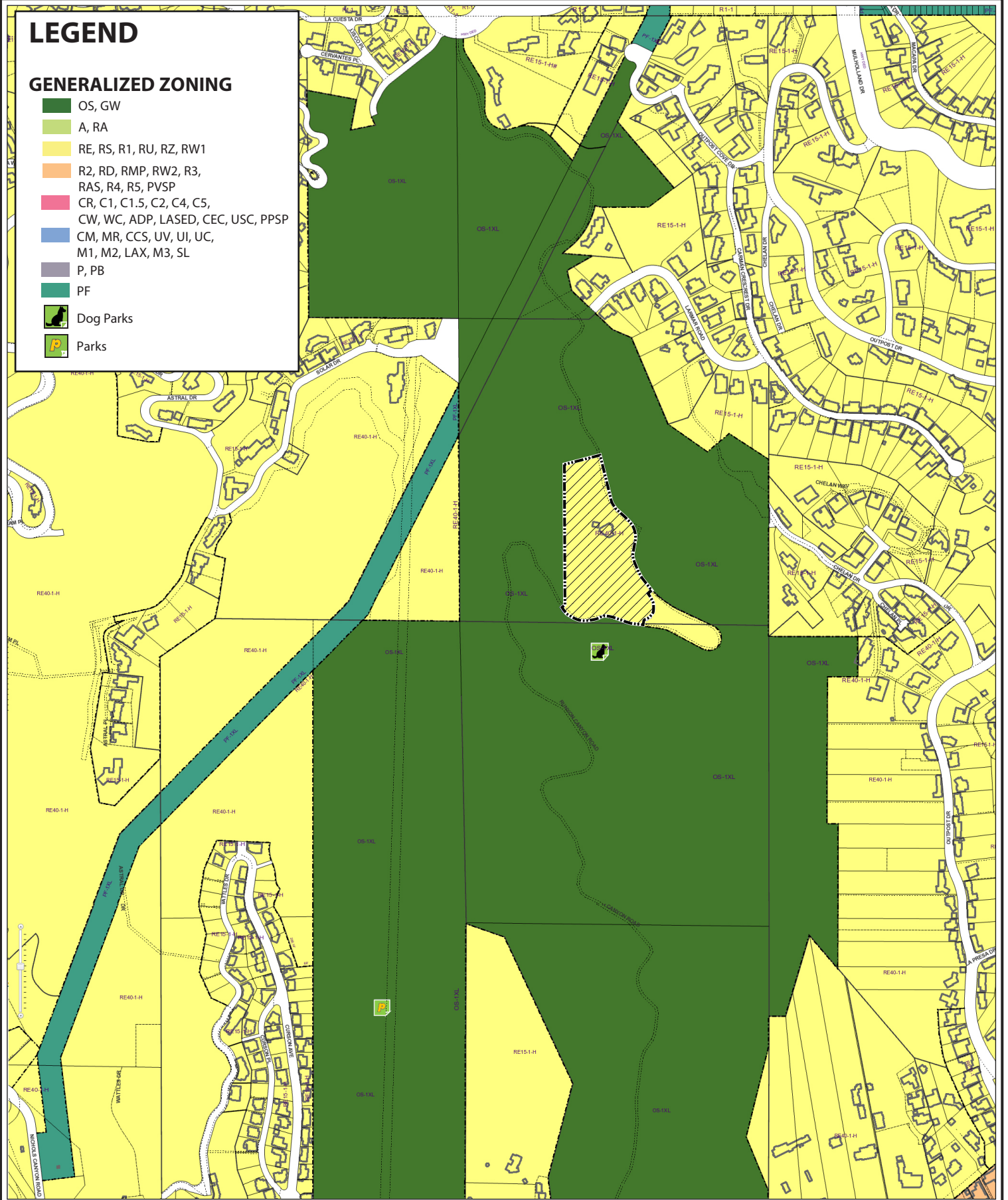


Figure IV.J-1
Land Use Map

LEGEND

GENERALIZED ZONING

- OS, GW
- A, RA
- RE, RS, R1, RU, RZ, RW1
- R2, RD, RMP, RW2, R3, RAS, R4, R5, PVSP
- CR, C1, C1.5, C2, C4, C5, CW, WC, ADP, LASED, CEC, USC, PPSP
- CM, MR, CCS, UV, UI, UC, M1, M2, LAX, M3, SL
- P, PB
- PF
- Dog Parks
- Parks



Legend

- Project Site

Source: Zimas, Accessed 6/4/19.

Figure IV.J-2
Zoning Map

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines (Appendix G), the Project would have a significant impact in regard to land use and planning if it would:

Threshold a) Physically divide an established community; or

Threshold b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The L.A. CEQA Thresholds Guide (Thresholds Guide) identifies the following criteria to evaluate land use and planning:

- *Whether the proposal is inconsistent 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.*

b. Methodology

To evaluate the Project's impacts related to land use and planning, this analysis examines the Project's consistency with local land use plans, policies, and regulations that were adopted for the purpose of avoiding or mitigating an environmental effect.

The legal standard that governs consistency determinations is that a project must only be in "harmony" with the applicable land use plan to be consistent with that plan. (See *Sequoyah Hills Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 717-18 [upholding a city's determination that a subdivision project was consistent with the applicable general plan]). As the Court explained in *Sequoyah*, "state law does not require an exact match between a proposed subdivision and the applicable general plan." To be "consistent" with the general plan, a project must be "compatible with the objectives, policies, general land uses, and programs specified in the applicable plan,"

meaning, the project must be “in agreement or harmony with the applicable plan.” (see also *Greenebaum v. City of Los Angeles* (1984) 153 Cal.App.3d 391, 406; *San Franciscans Upholding the Downtown Plan, supra*, 102 Cal.App.4th at p. 678.) Further, “[a]n action, program, or project is consistent with the general plan if, considering all its aspects, it will further the objectives and policies of the general plan and not obstruct their attainment.” (*Friends of Lagoon Valley v. City of Vacaville* (2007) 154 Cal.App.4th 807, 817.) Courts also recognize that general plans “ordinarily do not state specific mandates or prohibitions,” but instead provide “policies and set forth goals.” (*Friends of Lagoon Valley*).

As stated, the analysis below examines the Project’s consistency with local land use plans, policies, and regulations that were adopted for the purpose of avoiding or mitigating an environmental effect. These plans are the Framework Element and the Hollywood Community Plan.

c. Project Design Features

No specific Project Design Features are proposed with regard to land use.

d. Analysis of Project Impacts

Threshold a) Would the Project physically divide an established community?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR and in the Initial Study (Appendix A), a significant impact may occur if a project is sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community (a typical example would be a project which involved a continuous right-of-way such as a roadway which would divide a community and impede access between parts of the community). The Project is not of the scale or nature that could physically divide an established community, given that the Project proposes construction of a single family residence within an existing legal lot, which would not require any kind of physical encroachment into other private or public properties.

The Project Site is surrounded by Runyon Canyon Park, which is public park land managed by the City of Los Angeles Department of Parks and Recreation and zoned OS-IXL. The Site is accessed by Runyon Canyon Road, a private fire road that is closed to public motor vehicle access that runs roughly through the center of the park between the northern and southern entrances along Runyon Canyon itself. The road is also currently used as a hiking trail through the public park. The 160-acre park is open to the public seven days a week from dawn to dusk. Bordering the park in all directions are low-density zoned residential uses with the exception of multi-family residential uses

along a portion of the southern park border near the Fuller Avenue park entrance. The Project proposes the construction of a single-family residential structure, with the existing structure reclassified as Accessory Living Quarters. The Project would not affect the ability of hikers to access Runyon Canyon Park. **Thus, the Project would not physically divide an established community and no impact would occur.**

Threshold b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

(1) General Plan Framework Element

The Project Site's Minimum Low Density Residential land use designation corresponds to Goal 3B of the Framework Element of the General Plan, which is "preservation of the City's stable single-family residential neighborhoods." The Project proposes to build a single-family residence and to retain the existing historic Headley/Handley House as a guest house. This is consistent with the existing zoning and land use designation for the Project Site as well as the residential neighborhood bordering Runyon Canyon Park, which consists in all directions of low-density zoned residential uses, with the exception of multi-family residential uses along a portion of the southern park border near the Fuller Avenue park entrance. As such, the Project would not impact the preservation of the City's single-family residential neighborhoods, which could result in an environmental effect.

As stated above, the Project Site is immediately surrounded by Runyon Canyon Park, which is public open space zoned OS-IXL. The applicable policies of the Open Space and Conservation Chapter of the Framework Element are provided above under "Regulatory Framework." The Project would be consistent with these policies, as it would not encroach on any open space uses. While surrounded by land zoned for open space, the Project would develop a single-family residence on a site zoned for such uses. In addition, the Project would be consistent with policies to protect natural viewsheds as the Project has been designed such that the proposed home would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property, and is completely hidden from Mulholland Drive. Further, as discussed in greater detail in Section IV.C, Biological Resources, Project impacts with respect to wildlife movement would be less than significant. Finally, as discussed in Sections IV.F (Geology and Soils) and IV.I (Hydrology and Water Quality), respectively, Project impacts with respect to landslides and flooding would be less than significant.

Thus, the Project would be consistent with the applicable policies of the General Plan Framework Element and impacts would be less than significant.

(2) Hollywood Community Plan

The Project's consistency with applicable objectives of the Hollywood Community Plan is discussed in Table IV.J-1, below.

**Table IV.J-1
Project Consistency with the Applicable Policies of the Hollywood Community Plan**

Objectives	Consistency Discussion
<p>3. To encourage the preservation and enhancement of the varied and distinctive residential character of the Community, and to protect lower density housing from the scattered intrusion of apartments.</p> <p>In hillside residential areas to:</p> <ul style="list-style-type: none"> a. Minimize grading to retain the natural terrain and ecological balance. b. Provide a standard of land use intensity and population density which will be compatible with street capacity, public service facilities and utilities, and topography and in coordination with development in the remainder of the City. 	<p>Consistent. The Project proposes development of a new single-family residence on the Project Site, consistent with the existing zoning and land use designation for the Project Site.</p> <p>Regarding grading, the Project is requesting a Zoning Administrator Determination (ZAD) to allow 28,012 cubic yards of grading (14,008 cubic yards of fill to be re-located on-site with no net export) so that no haul route is required. Further, the portion of the Project Site that would accommodate the Project is a ridgeline that was previously disturbed. The grading design, modifying an already-disturbed ridgeline, helps preserve existing, natural terrain surrounding the Project Site and helps maintain ecological balance by minimizing the development site overall and preventing encroachment into native landscape areas.</p> <p>As discussed in Draft EIR Section IV.L, Public Services, and in Draft EIR Section VI (subsection Impacts Found Not to be Significant), all Project impacts with respect to public services and utilities would be less than significant. Finally, as discussed in Section IV.M, Transportation/Traffic, the Project would generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters.</p>
<p>7. To encourage the preservation of open space consistent with property rights when privately owned and to promote the preservation of views, natural character and topography of mountainous parts of the Community for the enjoyment of both local residents and persons throughout the Los Angeles region.</p>	<p>Consistent. The Project would not affect the ability of hikers to access Runyon Canyon Park. Further, the Project would not be built on any publicly accessible land within Runyon Canyon Park, and therefore, the Project would not otherwise affect the preservation of open space in Runyon Canyon Park. In addition, the Project would preserve existing views as it has been designed such that the proposed home would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property, and is completely hidden from Mulholland Drive. The proposed residence is sited physically within the bluff (buried)</p>

**Table IV.J-1
Project Consistency with the Applicable Policies of the Hollywood Community Plan**

Objectives	Consistency Discussion
	so that the only face of the residence that would be visible is on the western elevation. The home has been further designed with curvilinear roof lines that blend in with the natural topography, as well as a grass roof.
<i>Source: Hollywood Community Plan, 1998.</i>	

As shown in the table above, the Project would be substantially consistent with the applicable policies of the Hollywood Community Plan. The Project's proposed single-family residence would be consistent with the Minimum Residential land use designation for the Project Site, and impacts would be less than significant.

(3) Mulholland Scenic Parkway (Outer Corridor) Specific Plan

An analysis of the Project's consistency with the MSPSP is provided in Appendix J of this Draft EIR. As demonstrated therein, the Project would be substantially consistent with the guidelines and policies contained in the MSPSP. While the Project requests a Specific Plan Exception to allow construction of the proposed home within 50 feet of a prominent ridge as specified in the MSPSP, the proposed home has been designed such that it would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property. In addition, the proposed home is completely hidden from Mulholland Drive. The Project has been designed to meet the requirements of the MSPSP for height, sensitivity to topography, and bulk of structures. Thus, the Project would result in less than significant impacts related to scenic vistas, including major vista points identified in the MSPSP. As such, Project impacts with respect to the MSPSP would be less than significant.

(4) Zoning Code

As discussed previously, the Project Site is zoned as RE40-1-H (Residential Estate, Hillside Ordinance), which would allow for development of a single-family residence on the Project Site. The existing historical structure (the Headley/Handley House) would remain intact on the Project Site and would be reclassified as Accessory Living Quarters, which as provided above, is an allowable use within the RE 40 zone. The existing zoning for the Project Site allows a maximum height of 30 feet. The Project consists of three floor levels, with each level no more than a floor-to-floor interior height of 10 feet. The proposed residence tiers back against the slope so that at no point would the residence have an exposed building height over 30 feet consecutively. The stepped configuration of the design only allows for 10-foot levels stacked back from each other as they ascend or descend. The height of the existing residence on the

Project Site is 25 feet. The Project would also comply with the Hillside Ordinance requirements for floor area and lot coverage, which allow a maximum floor area of 38,373 square feet and a maximum lot coverage of 40%. The proposed floor area is 8,099 square feet, and the proposed lot coverage is approximately 9.7%. Therefore, the Project would be consistent with the requirements Zoning Code as it relates to use, height, floor area, and lot coverage.

The Project is requesting approval of the following discretionary actions from the City:

1. Specific Plan Exception (SPE) to allow construction of a new Single-Family Dwelling to be located within 50 feet of a prominent ridge as specified in the Mulholland Scenic Parkway Specific Plan;
2. Mulholland Specific Plan Project Permit Compliance (SPP) for the Mulholland Scenic Parkway Specific Plan (MSP);
3. Zoning Administrator Determination (ZAD) to allow three (3) retaining walls instead of two (2) retaining walls of up to ten (10) feet;
4. Zoning Administrator Determination (ZAD) to allow 28,012 cubic yards of grading (14,008 cubic yards of fill to be relocated on-site with no net export) so no haul route is required; and
5. Haul route approval, if required, only if the Zoning Administrator's Determination to allow additional grading on-site is denied.

As listed above, the Project is requesting a Specific Plan Exception to allow construction of the proposed home within 50 feet of a prominent ridge as specified in the Mulholland Scenic Parkway Specific Plan. However, the proposed home has been designed such that it would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property, and is completely hidden from Mulholland Drive. The Project has been designed to meet the requirements of the MSPSP for height, sensitivity to topography, and bulk of structures. Thus, the Project would result in less than significant impacts related to scenic vistas, including major vista points identified in the MSPSP.

In addition, the Project is requesting a Zoning Administrator's Determination to allow all grading and fill to be balanced on-site so that no haul route would be required. A haul route would only be required if the requested Zoning Administrator's Determination is denied. This would also require a Zoning Administrator's Determination to allow a third retaining wall. The design to incorporate significant grading was made after meetings with the Mulholland Design Review Board deemed it to be an effective

way to minimize potential view impacts from the west and deeper inside the park, near the hiking trail. Further, the grading design of modifying an already-disturbed ridgeline helps preserve existing, natural terrain surrounding the Project Site and helps maintain ecological balance by minimizing the development site overall and preventing encroachment into native landscape areas. Finally, the grading required as part of the Project's construction would not result in significant impacts during construction with respect to other areas, such as air quality, noise, or traffic.

As such, the Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and impacts are less than significant.

4. Cumulative Impacts

The Project would be compatible with the various developments planned throughout the surrounding vicinity, as well as with existing uses in the immediate area, and the Project would therefore not divide an established community. Similarly, the five identified related projects would also be compatible with the existing uses in the area of each of the related projects, and therefore the related projects would also not physically divide an established community. **Thus, the cumulative impacts related to community division would be less than significant.**

Like the Project, the five related projects identified in the Project vicinity propose single-family residential units on sites zoned for such uses. As with the Project, the related projects would also be required to comply with relevant land use policies and regulations. Therefore, as the Project would generally be consistent with applicable land use plans, the Project would not incrementally contribute to cumulative inconsistencies with respect to land use plans. Further, it is expected that the related projects would also generally be consistent with applicable land uses plans. **Therefore, cumulative impacts with regard to regulatory framework would be less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts with regard to land use would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

K. Noise

1. Introduction

This section evaluates the Project's potential noise and vibration impacts, including noise and vibration impacts from construction and/or operation of the Project, and whether a substantial temporary, periodic, and/or permanent increase in ambient noise levels would occur with implementation of the Project. A summary of applicable regulations and noise standards is also provided in this section. In addition, potential cumulative impacts associated with noise generated by the Project, in combination with all known related projects, are evaluated.

This section is based on information and analysis provided in the following technical modeling, included in Appendix H of this Draft EIR.

H Noise Technical Modeling, DKA Planning, August 2018.

2. Environmental Setting

a. Fundamentals of Noise and Vibration

(1) Introduction to Noise

a. Characteristics of Sound

Sound can be described in terms of its loudness (amplitude) and frequency (pitch). The standard unit of measurement for sound is the decibel, abbreviated dB. Because the human ear is not equally sensitive to sound at all frequencies, the A-weighted scale (dBA) is used to reflect the normal hearing sensitivity range of the human ear. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. Table IV.K-1 provides examples of A-weighted noise levels from common sources.

**Table IV.K-1
A-Weighted Decibel Scale**

Typical A-Weighted Sound Levels	Sound Level (dBA, L_{eq})
Near Jet Engine	130
Rock and Roll Band	110
Jet flyover at 1,000 feet	100
Power Motor	90
Food Blender	80
Living Room Music	70
Human Voice at 3 feet	60
Residential Air Conditioner at 50 feet	50
Bird Calls	40
Quiet Living Room	30
Average Whisper	20
Rustling Leaves	10
<i>Source: Cowan, James P., Handbook of Environmental Acoustics, 1993.</i>	
<i>These noise levels are approximations intended for general reference and informational use. They do not meet the standard required for detailed noise analysis, but are provided for the reader to gain a rudimentary concept of various noise levels.</i>	

b. Noise Definitions

This noise analysis discusses sound levels in terms of equivalent noise level (L_{eq}), maximum noise level (L_{max}) and the Community Noise Equivalent Level (CNEL).

Equivalent Noise Level (L_{eq}): L_{eq} represents the average noise level on an energy basis for a specific time period. Average noise level is based on the energy content (acoustic energy) of sound. For example, the L_{eq} for one hour is the energy average noise level during that hour. L_{eq} can be thought of as a continuous noise level of a certain period equivalent in energy content to a fluctuating noise level of that same period. L_{eq} is expressed in units of dBA.

Maximum Noise Level (L_{max}): L_{max} represents the maximum instantaneous noise level measured during a given time period.

Community Noise Equivalent Level (CNEL): CNEL is an adjusted noise measurement scale of average sound level during a 24-hour period. Due to increased noise sensitivities during evening and night hours, human reaction to sound between 7:00 P.M. and 10:00 P.M. is as if it were actually 5 dBA higher than had it occurred between 7:00 A.M. and 7:00 P.M. From 10:00 P.M. to 7:00 A.M., humans perceive sound as if it were 10 dBA higher. To account for these sensitivities, CNEL figures are obtained by adding an additional 5 dBA to evening noise levels between 7:00 P.M. and 10:00 P.M. and 10 dBA

to nighttime noise levels between 10:00 P.M. and 7:00 A.M. Because of this, 24-hour CNEL figures are always higher than their corresponding actual 24-hour averages. The CNEL metric is utilized almost exclusively to characterize 24-hour noise impacts from operations, including traffic noise levels. Construction activities generally do not occur during the evening, nighttime, and early morning periods when CNEL adjusts for increased human noise sensitivity.

c. Effects of Noise

The degree to which noise can impact an environment ranges from levels that interfere with speech and sleep to levels that can cause adverse health effects. Most human response to noise is subjective. Factors that influence individual responses include the intensity, frequency, and pattern of noise; the amount of background noise present; and the nature of work or human activity exposed to intruding noise.

According to the National Institute of Health (NIH), extended or repeated exposure to sounds at or above 85 dB can cause hearing loss. Sounds of 75 dBA or less, even after continuous exposure, are unlikely to cause hearing loss.¹ The World Health Organization (WHO) reports that adults should not be exposed to sudden “impulse” noise events of 140 dB or greater. For children, this limit is 120 dB.²

Exposure to elevated nighttime noise levels can disrupt sleep, leading to increased levels of fatigue and decreased work or school performance. For the preservation of healthy sleeping environments, the WHO recommends that continuous interior noise levels not exceed 30 dBA, L_{eq} and that individual noise events of 45 dBA or higher be limited.³ Assuming a conservative exterior to interior sound reduction of 15 dBA, continuous exterior noise levels should, therefore, not exceed 45 dBA, L_{eq} . Individual exterior events of 60 dBA or higher should also be limited.

Some epidemiological studies have shown a weak association between long-term exposure to noise levels of 65 to 70 dBA, L_{eq} and cardiovascular effects, including ischaemic heart disease and hypertension. However, at this time, the relationship is largely inconclusive.

People with normal hearing sensitivity can recognize small perceptible changes in sound levels of approximately 3 dBA. Changes of at least 5 dBA can be readily noticeable and may cause community reactions. Sound level increases of 10 dBA or greater are

¹ National Institute of Health, National Institute on Deafness and Other Communication, www.nidcd.nih.gov/health/noise-induced-hearing-loss.

² World Health Organization, *Guidelines for Community Noise*, 1999.

³ *Ibid.*

perceived as a doubling in loudness and can provoke a community response.⁴ However, few people are highly annoyed by noise levels below 55 dBA, L_{eq} .⁵

d. Noise Attenuation

Noise levels decrease as the distance from noise sources to receivers increases. For each doubling of distance, noise from stationary sources, commonly referred to as “point sources,” can decrease by approximately 6 dBA over hard surfaces (e.g., reflective surfaces such as parking lots) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces such as soft dirt and grass). For example, if a point source produces a noise level of 89 dBA at a reference distance of 50 feet and over an asphalt surface, its noise level would be approximately 83 dBA at a distance of 100 feet, 77 dBA at 200 feet, etc. Noises generated by mobile sources decrease by approximately 3 dBA over hard surfaces and 4.5 dBA over soft surfaces for each doubling of distance.

Noise is most audible when traveling by direct line of sight, an unobstructed visual path between noise source and receptor. Barriers that break line of sight between sources and receivers, such as walls and buildings, can greatly reduce source noise levels allowing noise to reach receivers by diffraction only. As a result, sound barriers can reduce source noise levels by up to 20 dBA, though it is infeasible for temporary barriers to reduce noise levels by more than 15 dBA. The effectiveness of barriers can be greatly reduced when they are not high or long enough to completely break line of sight from sources to receivers.

It should be noted that because decibels are logarithmic units, they cannot be simply added or subtracted. For example, two cars each producing 60 dBA of noise would not produce a combined 120 dBA, but rather 63 dBA.

(2) Introduction to Vibration

a. 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, and acceleration. Unlike noise, vibration is not a common environmental problem, as it is unusual for vibration from vehicle sources to be perceptible. Common sources of vibration include trains, construction activities, and certain industrial operations.

⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006.

⁵ World Health Organization, *Guidelines for Community Noise*, 1999.

b. Effects of Vibration

High levels of vibration may cause physical personal injury or damage to buildings. However, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that may affect concentration or disturb sleep. In addition, high levels of vibration may damage fragile buildings or interfere with equipment that is highly sensitive to vibration (e.g., electron microscopes). Unlike noise, ground-borne vibration is not an environmental issue that most people experience every day.

Background vibration levels in residential areas are usually well below the threshold of perception for humans, approximately 0.01 inch per second.⁶ Perceptible indoor vibrations are most often caused by sources within buildings themselves, such as slamming doors or heavy footsteps. Common outdoor sources of ground-borne vibration include construction equipment, trains, and traffic on rough or unpaved roads. Traffic vibration from smooth and well-maintained roads is typically not perceptible. As a result, background vibration levels in residential areas are usually well below the threshold of perception for humans, which is approximately 65 VdB (VdB explained below).⁷ Perceptible indoor vibrations are most often caused by sources within buildings themselves, such as slamming doors, washing machines, or heavy footsteps.

c. Vibration Definitions

This analysis discusses vibration in terms of Peak Particle Velocity (PPV) and Root Mean Square Amplitude (RMS Amplitude).

Peak Particle Velocity (PPV): PPV is commonly used to describe and quantify vibration impacts to buildings and other structures. PPV levels represent the maximum instantaneous peak of a vibration signal and are usually measured in inches per second.⁸

Root Mean Square (RMS) Amplitude: RMS Amplitude is most frequently used to describe and quantify the effect of vibration on humans, specifically how groundborne vibration can annoy humans or disrupt certain sensitive land uses and activities. RMS amplitude is defined as the average of the squared amplitude of a vibration signal. Decibel notation, expressed in VdB, is commonly used to measure RMS amplitude. The decibel scale compresses the range of numbers required to quantify the vibration.⁹

⁶ *Ibid.*

⁷ *FTA, Transit Noise and Vibration Impact Assessment, May 2006.*

⁸ *California Department of Transportation, Transportation and Construction Vibration Guidance Manual, September 2013.*

⁹ *Ibid.*

b. Regulatory Framework

(1) Noise

a. Federal

There are no federal noise standards that directly regulate environmental noise related to the construction or operation of the Project, which is a private development in the City.

b. State

2017 General Plan Guidelines

The State's 2017 General Plan Guidelines establish county and city standards for acceptable exterior noise levels based on land use. These standards are incorporated into land use planning processes to prevent or reduce noise and land use incompatibilities. Table IV.K-2 illustrates State compatibility considerations between various land uses and exterior noise levels.

**Table IV.K-2
State of California Noise/Land Use Compatibility Matrix**

Land Use Compatibility	Community Noise Exposure (dBA, CNEL)							
	<	55	60	65	70	75	80	>
Residential – Low Density Single-Family, Duplex Mobile Homes	NA							
		CA						
					NU			
						CU		
Residential – Multi-Family	NA							
		CA						
					NU			
						CU		
Transient Lodging – Motels, Hotels	NA							
		CA						
					NU			
							CU	
Schools, Libraries, Churches, Hospitals, Nursing Homes	NA							
		CA						
					NU			
							CU	
Auditoriums, Concert Halls, Amphitheaters	CA							
				CU				
Sports Arenas, Outdoor Spectator Sports	CA							
				CU				

Playgrounds, Neighborhood Parks	NA						
				NU			
						CU	
Golf Courses, Riding Stables, Water Recreation, Cemeteries	NA						
				NU			
							CU
Office Buildings, Business Commercial and Professional	NA						
				CA			
						NU	
Industrial, Manufacturing, Utilities, Agriculture	NA						
				CA			
						NU	
<p>NA = 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.</p> <p>CA = 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.</p> <p>NU = 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.</p> <p>CU = Clearly Unacceptable - New construction or development should generally not be undertaken.</p> <p>Source: California Office of Planning and Research, General Plan Guidelines - Noise Element Guidelines (Appendix D), Figure 2, 2017.</p>							

c. City of Los Angeles

General Plan Noise Element

The City of Los Angeles General Plan includes a Noise Element that includes policies and standards to guide for the control of noise to protect residents, workers, and visitors. Its primary goal is to regulate long-term noise impacts to preserve acceptable noise environments for all types of land uses.

However, the Noise Element contains no quantitative or other thresholds of significance for evaluating a proposed project’s noise impacts. Instead, it adopts the State’s guidance on noise and land use compatibility (Table IV.K-2) “to help guide determination of appropriate land use and mitigation measures vis-à-vis existing or anticipated ambient noise levels.”

Los Angeles Municipal Code

The City of Los Angeles Municipal Code (the “LAMC”) contains a number of regulations that would apply to the Project’s temporary construction activities and long-term operations.

Section 41.40(a) would prohibit Project construction activities from occurring between the hours of 9:00 P.M. and 7:00 A.M., Monday through Friday. Subdivision (c) would further prohibit such activities from occurring before 8:00 A.M. or after 6:00 P.M. on any Saturday, or on any Sunday or national holiday.

SEC.41.40. NOISE DUE TO CONSTRUCTION, EXCAVATION WORK—WHEN PROHIBITED.

- (a) No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power drive drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.

Section 112.05 of the LAMC establishes a 75 dBA noise limit for powered equipment and hand tools operated within 500 feet of residential zones. Of particular importance to construction activities is subdivision (a), which institutes a maximum noise limit of 75 dBA for the types of construction vehicles and that are necessary for grading work, especially. However, the LAMC goes on to note that these limitations do not necessarily apply if proven that compliance therewith would be technically infeasible despite the use of noise-reducing means or methods.

SEC. 112.05. MAXIMUM NOISE LEVEL OF POWERED EQUIPMENT OR POWERED HAND TOOLS

Between the hours of 7:00 A.M. and 10:00 P.M., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any

powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

- (a) 75 dBA for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;
- (b) 75 dBA for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;
- (c) 65 dBA for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors.

Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.

Section 112.01 of the LAMC would prohibit any amplified noises, especially those from outdoor sources (e.g., outdoor speakers, stereo systems, etc.) from exceeding the ambient noise levels of adjacent properties by more than 5 dBA.

SEC. 112.01. RADIOS, TELEVISION SETS, AND SIMILAR DEVICES

- (a) It shall be unlawful for any person within any zone of the City to use or operate any radio, musical instrument, phonograph, television receiver, or other machine or device for the producing, reproducing or amplification of the human voice, music, or any other sound, in such a manner, as to disturb the peace, quiet, and comfort of neighbor occupants or any reasonable person residing or working in the area.
- (b) Any noise level caused by such use or operation which is audible to the human ear at a distance in excess of 150 feet from the property line of the noise source, within any residential zone of the City or within 500 feet thereof, shall be a violation of the provisions of this section.

- (c) Any noise level caused by such use or operation which exceeds the ambient noise level on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit, by more than five (5) decibels shall be a violation of the provisions of this section.

Section 112.02(a) would prevent Project heating, ventilation, and air conditioning (HVAC) systems and other mechanical equipment from elevating ambient noise levels at neighboring residences by more than 5 dBA.

SEC.112.02. AIR CONDITIONING, REFRIGERATION, HEATING, PLUMBING, FILTERING EQUIPMENT

It shall be unlawful for any person, within any zone of the city, to operate any air conditioning, refrigeration or heating equipment for any residence or other structure or to operate any pumping, filtering or heating equipment for any pool or reservoir in such manner as to create any noise which would cause the noise level on the premises of any other occupied property ... to exceed the ambient noise level by more than five decibels.

(2) Vibration

While there are no adjacent off-site structures that would be affected by construction vibration given the substantial distance between structures in the area, this section provides a broad overview of the topic.

a. Federal

Federal Transit Administration (FTA)

Though not regulatory in nature, the FTA has established vibration impact criteria for land uses based on their potential for human annoyance and activity disruption (Table IV.K-3). It should be noted that these criteria were developed specifically to apply to long-term or permanent operational groundborne vibration from transit projects (e.g. commuter rail), not from temporary events such as construction activities. Additionally, because these criteria were designed to assess transit impacts, one primary factor that they account for is the potential for late-running transit systems to impact the quality of residential sleeping environments.

However, unlike transit systems that commonly operate during late evening and early morning hours, construction activities would be prohibited from occurring during nighttime hours when people sleep (see LAMC Section 41.40, above). Therefore, though

the same FTA vibration criteria are utilized to evaluate the impacts of construction activities, exceeding them on temporary, short-term timescales and during less-sensitive daytime hours would not necessarily be considered significant, as it would be for the long-term operational vibration impacts of permanent transit systems. In general, groundborne vibrations of 75 dBA are considered potentially annoying. Vibrations of 85 VdB or greater would likely be highly annoying and disruptive, irrespective of the affected land use.

**Table IV.K-3
Groundborne Vibration Impact Criteria (Human Annoyance)**

Land Use	Significance Criteria (VdB)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Buildings where vibration would interfere with interior operations.	65	65	65
Residences and buildings where people normally sleep.	72	75	80
Institutional land uses with primarily daytime uses.	75	78	83
Concert halls, TV studios, and recording studios	65	65	65
Auditoriums and theaters	72	80	80
¹ "Frequent Events" is defined as more than 70 vibration events of the same source per day. ² "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. ³ "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. Source: Federal Transit Administration, 2006.			

Typically, potential building and structural damages are the foremost concern when evaluating the impacts of construction-related vibrations. Table IV.K-4 summarizes the FTA's vibration guidelines for building and structural damage.

**Table IV.K-4
Groundborne Vibration Impact Criteria (Building Damage)**

Building Category	PPV (in/sec)
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, 2006.	

b. State

There are no State standards that directly regulate groundborne vibration related to the construction or operation of the Project, which is a private development in the City.

c. City of Los Angeles

There are no City standards that directly regulate groundborne vibration related to the construction or operation of the Project, which is a private development in the City. As a result, the City generally relies on FTA criteria to evaluate vibration impacts of projects under CEQA.

c. Existing Conditions

(1) Noise-Sensitive Receptors

Land uses sensitive to noise may include residences, transient lodgings, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks. The following receptors were chosen specifically for detailed construction noise impact analysis given their potential sensitivity to noise and proximity to the Project Site:

- Chelan Drive Residences: This receptor consists of single-family residences located along Chelan Drive, as close as 750 feet east of the Project Site.
- Larmar Road Residences: This receptor consists of single-family residences located along Larmar Road, as close as 700 feet northeast of the Project Site.
- Solar Drive Residences: This receptor consists of single-family residences located along Solar Drive, as close as 950 feet northwest of the Project Site.
- Runyon Canyon Park: The Project is centrally located within the 160-acre Runyon Canyon Park. Mostly consisting of steep hillside open space, the park includes numerous paths and hiking trails. Runyon Canyon Road, the Project's primary means of vehicle access, is also a popular path for park users.

(2) Existing Ambient Noise Levels

The existing noise environment surrounding the Project Site is consistent with low-density hillside residential areas. Ambient noise is mostly characterized by natural sounds such as wind and bird calls and is only intermittently punctuated by noise from passing

vehicles. Distant landscaping-related noises were audible at some locations. As provided in the Noise Technical Modeling (attached as Appendix H), DKA Planning took short-term noise readings on August 8, 2018, at locations surrounding the Project Site to determine the baseline ambient noise conditions of nearby sensitive receptors.¹⁰ Table IV.K-5 summarizes the results of this noise monitoring. As shown, ambient noise levels are low, below 50 dBA L_{eq} . Note that there is no singular representative ambient noise level for Runyon Canyon Park. Noise levels in Runyon Canyon Park generally correspond with location and the number of users along trails and other paths; ambient noise levels are greater during times of peak activity due to increased noise from conversation (e.g. speech, laughter) and music (i.e. phones and portable stereo systems). However, it can be conservatively assumed that background ambient noise levels are usually below 50 dBA L_{eq} .

**Table IV.K-5
Existing Noise Levels**

Noise Monitoring Locations	Sound Levels (dBA, L_{eq})
1. Western terminus of Chelan Drive	43.6
2. Larmar Road near Carman Crest Drive	47.0
3. Eastern terminus of Solar Drive	48.8
<i>Source: DKA Planning, 2018</i>	

(3) Existing Groundborne Vibration Levels

No sources of groundborne vibration were perceptible at any noise monitoring location during the course of the field noise study. It is likely that perceptible groundborne vibrations could occasionally be generated by sources such as garbage trucks and other large trucks (e.g. home delivery vehicles, construction delivery vehicles, cement trucks). However, groundborne vibration levels surrounding the Project Site are by and large imperceptible, suggesting that groundborne vibration levels are generally below the 65 VdB threshold of perception for humans.

¹⁰ *Noise measurements were taken using a Quest Technologies SoundPro DL Sound Level Meter. The SoundPro meter complies with the American National Standards Institute (ANSI) and International Electrotechnical Commission (IEC) for general environmental measurement instrumentation. The meter was equipped with an omni-directional microphone, calibrated before the day's measurements, and set at approximately five feet above the ground.*



Figure IV.K-1
Noise Monitoring Location Map

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to noise if the Project would result in:

- a) *Generation of a substantial temporary or periodic increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*
- b) *Generation of excessive groundborne vibration or groundborne noise levels; or*
- c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, would the project expose people residing or working in the project area to excessive noise levels.*

b. Methodology

(1) On-Site Construction Activities

The Project's construction noise impact associated with its on-site construction activities was calculated by logarithmically adding the Project's estimated construction noise levels to existing ambient noise levels measured at or near sensitive receptor locations. Results were then analyzed by noting the increase in noise levels that on-site construction activities could produce. The Project's projected construction noise level represents the maximum, most disruptive noise impact that on-site activities could generate, considering factors such as equipment noise levels, equipment usage, and construction scheduling.

Reference equipment noise levels were obtained from the Federal Highway Administration's Roadway Construction Noise Model, version 1.1 (FHWA RCNM 1.1). Ambient noise levels for sensitive receptors were obtained from field measurement data. Construction noise levels for sensitive receptors were calculated based on the standard point source noise-distance attenuation factor of 6 dBA for each doubling of distance. Adjustments were conservatively applied in instances where factors such as ground surface or intervening structures/terrain could provide additional noise attenuation.

(2) Off-Site Construction Activities – Trucks

The Project's off-site construction noise impact from vehicles such as vendor delivery trucks, concrete mixing trucks, concrete pumping trucks, truck-mounted cranes, and construction worker vehicles was analyzed by considering the Project's estimated truck usage during construction compared with existing ambient noise levels.

(3) On-Site Operational Noise Sources

The Project's potential to result in significant noise impacts from on-site operational noise sources was evaluated by identifying sources of on-site noise and considering the impact that they could produce given the nature of the source (i.e., loudness and whether noise would be produced during daytime or more-sensitive nighttime hours), distances to nearby sensitive receptors, surrounding ambient noise levels, the presence of similar noise sources in the vicinity, and maximum allowable noise levels permitted by the LAMC.

(4) Off-Site Operational Noise Sources

The Project proposes to develop a single-family residence that would generate approximately ten vehicle trips daily.¹¹ However, these would not be new trips as the occupants who currently live in the house on the Project Site would move into the new single-family residence, with the existing home reclassified as Accessory Living Quarters. Therefore, the Project would not result in any new vehicle trips per day, and no impact analysis is necessary.

(5) Construction Vibration Sources

The Project's potential to generate damaging levels of groundborne vibration was analyzed by identifying construction vibration sources and estimating the maximum vibration levels that they could produce at nearby buildings, all based on principles and guidelines recommended by the FTA in its 2006 Transit Noise and Vibration Impact Assessment manual. Vibration levels were then compared with the manual's suggested damage criteria for various types of building categories.

The Project's potential to disrupt and/or annoy nearby people or land uses due to construction-related groundborne vibration was analyzed in a similar fashion. Groundborne vibration levels at nearby land uses were modeled and then compared with FTA impact criteria for various land uses.

¹¹ *Institute of Transportation Engineers, "Trip Generation, 10th Edition."*

(6) Operational Vibration Sources

Significant sources of operational vibration are generally limited to heavy equipment or industrial operations. The Project would have no such sources of vibration, and no impact analysis is necessary.

c. Project Design Features

No specific Project Design Features are proposed with regard to noise.

d. Analysis of Project Impacts

Threshold a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

(1) On-Site Construction Activities

The Project's on-site impacts from construction would be consistent with the City's municipal code requirements governing noise. Based on guidance from the City of Los Angeles Department of City Planning, any on-site construction noise impact would be considered significant if:

- Construction noise would exceed the 75 dBA at 50 feet maximum noise level limit for powered equipment established by Section 112.05 of the LAMC. This regulation applies to the on-site operations of powered construction equipment and not to road-legal trucks operating on public rights-of-way.

Proposed construction would generate noise during the many phases of Project construction. During all phases, noise-generating activities could occur at the Project Site between the hours of 7:00 A.M. and 9:00 P.M. Monday through Friday, in accordance with LAMC Section 41.40(a). On Saturdays, construction would be permitted to occur between 8:00 A.M. and 6:00 P.M.

On-site construction activities could include use of heavy equipment (e.g., excavators, bulldozers, loaders, graders). Smaller equipment such as forklifts, skid steer loaders, generators, and powered hand tools could also be used. Off-site secondary noises could be generated by sources such as construction worker vehicles, vendor deliveries, and concrete mixing trucks. Table IV.K-6 lists the maximum noise levels (L_{max}) of construction vehicles and equipment that could be utilized for the Project. Maximum noise levels occur when equipment operates under full power conditions (i.e., equipment engine at maximum speed).

**Table IV.K-6
Maximum Construction Noise Levels (without Regulatory Compliance)**

Noise Source	Noise Level (dBA, L _{max})					
	50 feet	100 feet	200 feet	400 feet	600 feet	800 feet
Backhoe	77.6	71.5	65.5	59.5	56.0	53.5
Compressor	77.7	71.6	65.6	59.6	56.1	53.6
Crane	80.6	74.5	68.5	62.5	59.0	56.5
Dozer	81.7	75.6	69.6	63.6	60.1	57.6
Excavator	80.7	74.7	68.7	62.6	59.1	56.6
Front End Loader	79.1	73.1	67.1	61.0	57.5	55.0
Grader	85.0	79.0	73.0	66.9	63.4	60.9
Paver	77.2	71.2	65.2	59.2	55.6	53.1
Roller	80.0	74.0	68.0	61.9	58.4	55.9
Welder	74.0	68.0	62.0	55.9	52.4	49.9
<i>Noise levels derived from the Federal Highway Administration's Roadway Construction Noise Model, version 1.1 (FHWA RCNM 1.1).</i>						

Noise from grading activities are typically the foremost concern when evaluating a project's construction noise impact, as these activities often require the use of heavy-duty, diesel-powered earthmoving equipment. As shown in Table IV.K-6, heavy equipment required for these activities could include backhoes, bulldozers, excavators, front-end loaders, and graders. Though other equipment may produce greater average or maximum noise levels than excavators and front-end loaders, their use would be more intermittent in nature or shorter in duration. For example, graders can produce average noise levels of 85 dBA L_{eq} at a distance of 50 feet. However, graders would not be required for more than a few days during the Project's development, whereas excavators and front-end loaders would be required extensively throughout the Project's entire grading phase.

While construction equipment rarely operates at full power and intensity for extended durations, LAMC Section 112.05 regulates the maximum noise levels of powered construction equipment operating in or within 500 feet from residential zones. This standard would apply to the Project, which is located within 500 feet of similarly zoned parcels (i.e., "Residential Estate"). As such, compliance with the City's regulations regarding construction noise would call for the inclusion of best practice measures on the construction site, including equipping construction equipment with exhaust mufflers and/or damping systems that could reduce their noise levels by 3 to 10 dBA.

With regulatory compliance with LAMC Section 112.05, the Project would not require mitigation measures during the construction phase. Table IV.K-7 shows that the Project's on-site construction noise levels following compliance with Section 112.05 would meet the 75 dBA limit at 50 feet of distance.

**Table IV.K-7
Maximum Construction Noise Levels (with Regulatory Compliance)**

Noise Source	Noise Level (dBA, L _{max})
	50 feet
Backhoe	67.6
Compressor	67.7
Crane	70.6
Dozer	71.7
Excavator	70.7
Front End Loader	69.1
Grader	75.0
Paver	67.2
Roller	70.0
Welder	64.0
<i>Noise levels derived from the Federal Highway Administration's Roadway Construction Noise Model, version 1.1 (FHWA RCNM 1.1). Assumes 10 dBA reduction from use of exhaust mufflers and/or aftermarket damping systems.</i>	

As a result, the Project's construction noise impact would be considered less than significant.

(2) Off-Site Construction Activities – Trucks

With regard to off-site construction-related noise impacts, the Project would be accessed by vehicles such as vendor delivery trucks, concrete mixing trucks, concrete pumping trucks, truck-mounted cranes, and construction worker vehicles. Such activity can increase ambient noise levels at any roadside sensitive receptors that are located along roadways accessing the Project, especially given the area's fairly low ambient noise levels. Though passbys from the Project's construction-related vehicles would increase noise levels at roadside receptors, any impacts would be intermittent and short in duration. The effect on average ambient noise levels could be somewhat pronounced due to low existing noise levels and the logarithmic nature of noise; however, overall, the Project's construction-related vehicle trips would only sporadically punctuate an otherwise quiet environment. The Project would not require dozens of hourly truck trips

capable of drastically elevating roadside ambient noise levels. Occasional noise events due to construction-related vehicle trips would last only a few seconds each in duration and would not constitute a substantial impact on the environment. **As a result, the Project's impact from off-site construction noise sources would be considered less than significant.**

(3) On-Site Operational Noise Sources

During operations, the Project would produce noise from both on- and off-site sources. For the reasons discussed below, the Project would not result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and on-site operational noise impacts would be less than significant.

Mechanical Equipment. Regulatory compliance with LAMC Section 112.02 would ultimately ensure that noises from sources, such as heating, air conditioning, and ventilation systems, do not increase ambient noise levels at neighboring occupied properties by more than 5 dBA. Given this regulation, the great distances to surrounding receptors, and the relatively quiet operation of modern heating, ventilation, and air conditioning systems, these on-site noise sources would not be capable of causing the ambient noise levels of nearby uses to increase by 5 dBA. Section 112.02 would also apply to any pool filtering and pumping equipment. Additionally, the Project Site currently consists of a single-family residence. Because of this, the development of the Project would not necessarily constitute a change in the environment, as its use would be consistent with the existing use, as well as surrounding uses.

Residential Land Uses. Noise from recurrent activities (e.g., conversation, television/radio use, dog barking) and non-recurrent activities (e.g., social gatherings) would elevate ambient noise levels to different degrees. The City's noise ordinance would provide a means to address nuisances related to intrusive residential noises. Additionally, the Project Site currently consists of a single-family residence. Because of this, the development of the Project would not constitute a change in the environment. The Project is located in an area with numerous similar single-family residences. The Project's land use would therefore be consistent with its surrounding environment, and it would not alter the noise profile of the area.

The impact of on-site operational noise sources would be less than significant.

(4) Off-Site Operational Noise Sources

The Project proposes a single-family residence that would generate a nominal amount of vehicle traffic. However, these would not be new trips as the occupants who currently live in the house on the Project Site would move into the new single-family residence, with the existing home reclassified as Accessory Living Quarters. **Therefore, the Project would not result in any new vehicle trips per day, and impacts would be less than significant.**

Threshold b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

(1) Building Damage Vibration Impact

As shown earlier in Table IV.K-6, construction of the Project would require large steel-tracked earthmoving equipment such as bulldozers and excavators. Such vehicles can produce vibration levels of 0.089 inches per second PPV at a reference distance of 25 feet. This vibration level at 25 feet would not exceed the FTA's most stringent vibration threshold of 0.12 inches per second PPV for "buildings extremely susceptible to vibration damage." The residential structures nearest to the Project Site are located well over 500 feet away. At these distances, groundborne vibrations generated by the Project's on-site construction activities would be nominal and far below any thresholds for building damage. **As a result, the Project's potential to damage nearby structures and buildings due to its construction-related groundborne vibrations would be considered less than significant.**

(2) Human Annoyance Vibration Impact

a. On-Site Construction Sources

As discussed above, construction of the Project would require large steel-tracked earthmoving equipment such as bulldozers and excavators. With regard to human annoyance, these vehicles can produce vibration levels of 87 VdB at a reference distance of 25 feet. Groundborne vibrations generated by these vehicles would attenuate to below the 65 VdB human threshold of perceptibility by approximately 135 feet of distance. Given that surrounding residences are located well over 500 feet away from the Project, groundborne vibration levels would be far below the threshold of perceptibility. **As a result, the Project's potential to annoy or disrupt people at surrounding residences due to its construction-related groundborne vibrations would be considered less than significant.**

b. Off-Site Construction Sources

As discussed earlier, construction of the Project would generate trips from large trucks including concrete mixing trucks, concrete pumping trucks, and vendor delivery trucks. Given the winding, narrow, and bumpy roads required to access the Project, as well as the frequently minimal setbacks between roadways and adjacent residences, heavy trucks accessing the Project could generate groundborne vibrations that are readily perceptible at nearby residences.

Truck passbys occurring within 60 feet of roadside residences could expose these land uses to groundborne vibrations in excess of 80 VdB, the FTA's human annoyance criteria for instances where there are fewer than 30 such vibration events per day. The Project would fall into this category. Residences within 60 feet of Project truck routes would therefore be considered to experience potentially annoying/disruptive groundborne vibration impacts as a result of the Project's truck trips. Truck routes are likely to access the US-101 freeway via Mulholland Drive, where some homes are located within 60 feet of the roadway.

Because this FTA criteria was developed specifically to evaluate the impacts of permanent transit vibration and not temporary construction impacts, the potential for annoyance for temporary, intermittent haul truck travel would be minimal. Further, the Project's truck trips would be prohibited from occurring during late night or early morning hours when the potential to negatively affect quality sleeping environments is much greater. In the absence of criteria specific to vibration from short-term activities, the any human annoyance with truck travel would be limited given the limited export of soil from the Project Site. **As such, impacts would be less than significant.**

(3) Operational Vibration Sources

During Project operations, there would be no significant stationary sources of groundborne vibration, such as heavy equipment or industrial operations. **The Project's long-term vibration impact from operational sources would be nominal and less than significant.**

Threshold c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, would the project expose people residing or working in the project area to excessive noise levels?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) of this Draft EIR, and in the Initial Study (Appendix A of this Draft EIR), the Project Site would

not expose people to excessive noise levels related to the operation of a public airport or private airstrip. **Thus, the Project would have no impact with respect to Threshold c). No further analysis is required.**

4. Cumulative Impacts

No related projects have been identified in the vicinity of the Project or its surrounding receptors. The five related projects in the general Project vicinity are all located more than 1,000 feet away from the Project Site, and therefore would not contribute substantially to cumulative noise impacts at receptors near the Project Site during short-term construction or long-term operational activities.

As a result, the Project's potential to contribute to any noise or vibration-related cumulative impacts would be considered less than significant.

5. Mitigation Measure

Project-level and cumulative impacts with regard to noise would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

a. Noise

(1) On-Site Construction Noise

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(2) Off-Site Construction Noise

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(3) On-Site Operational Noise

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(4) Off-Site Operational Noise

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

b. Vibration

(1) Building Damage Vibration Impact

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(2) Human Annoyance Vibration Impact – On-Site Sources

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

(3) Human Annoyance Vibration Impact – Off-Site Sources

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

L. Public Services – Fire Protection

1. Introduction

This section addresses the potential environmental impacts of the Project with respect to fire protection services, and the ability of existing Los Angeles Fire Department (LAFD) facilities in the Project area to accommodate the Project's needs for such fire protection facilities. The Project's fire protection needs are assessed through consideration of the types of proposed land uses, the demand created by the proposed land uses, and the distance of the Project Site from the nearest fire stations. This section is based on written correspondence from LAFD, included as Appendix I of this Draft EIR:

- I-1 Inter-Departmental Correspondence from Ralph M. Terrazas, Fire Chief, Los Angeles Fire Department, April 4, 2018.
- I-2 Approved Fire Hydrant and Access Plan, approved by Los Angeles Fire Department, August 9, 2018.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

No federal regulations are relevant to the thresholds discussed below.

(2) State

a. *California Building Code*

California Code of Regulations, Title 24, California Building Code (CBC) is a compilation of building standards, including fire safety standards for residential and commercial buildings. CBC standards are based on: (1) building standards that have been adopted by State agencies without change from a national model code; (2) building standards based on a national model code that have been modified to address particular California conditions; and (3) building standards authorized by the California legislature, not covered by the national model code. The California Fire Code (CFC) is

part of the CBC. Typical fire safety requirements of the CFC include: (1) the installation of sprinklers in all high-rise buildings; (2) the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and (3) the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The CFC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Specific California Fire Code regulations have been incorporated by reference with amendments in the Los Angeles Building Code, Fire Safety Regulations.

b. Occupational Safety and Health Administration

The California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA) provides details on fire protection and prevention (Division 1, Chapter 4, Article 36) for construction safety. A general requirement is that the employer shall be responsible for the development of a fire protection program to be followed throughout all phases of the construction work.

c. Mutual Aid Plan

The LAFD participates in the California Fire Service and Rescue Emergency Mutual Aid System, as managed by the Governor's Office of Emergency Services (OES). The OES Mutual Aid Plan outlines procedures for establishing mutual aid agreements at the local, operational, regional, and state levels, and divides the State into six mutual aid regions to facilitate the coordination of mutual aid. The Fire Department is located in Region I (San Luis Obispo, Santa Barbara, Ventura, Los Angeles, and Orange counties). Through the Emergency Mutual Aid system, the OES is informed of conditions in each geographic and organizational area of the state, and the occurrence or imminent threat of disaster. All OES Mutual Aid participants monitor a dedicated radio frequency for fire events that are beyond the capabilities of the responding fire department and provide aid in accordance with the management direction of the OES.¹

The Mutual Aid Plan is based on the concept of "self-help" and "mutual aid." The State of California, all 58 counties and nearly all city governments, including the City of Los Angeles, are signatory to a Master Mutual Aid Agreement. The State is divided into six mutual aid regions to facilitate the coordination of mutual aid and other emergency operations. It is in the best interest of local government agencies to cooperate to achieve objectives of common interest. The LAFD has long recognized the concept of a

¹ *California Emergency Management Agency, Mutual Aid Plan.*

functionally integrated fire protection system, involving Federal, State, and local government resources, as the most effective method of delivering fire protection where life, property, and natural resources values are at risk.²

(3) Local

a. Los Angeles General Plan

The City's General Plan Framework Element (the Framework Element), adopted in December 1996 and readopted in August 2001, contains policies and objectives that address fire services within the City. The Framework Element contains the following goals, objectives, and policies related to fire:³

GOAL 9J: Every neighborhood has the necessary level of fire protection service, emergency medical service (EMS) and infrastructure.

- **Objective 9.16:** Monitor and forecast demand for existing and projected fire facilities and service.
 - **Policy 9.16.1:** Collect appropriate fire and population development statistics for the purpose of evaluating fire service needs based on existing and future conditions.
- **Objective 9.17:** Assure that all areas of the City have the highest level of fire protection and EMS, at the lowest possible cost, to meet existing and future demand.
 - **Policy 9.17.4:** Consider the Fire Department's concerns and, where feasible adhere to them, regarding the quality of the area's fire protection and emergency medical services when developing general plan amendments and zone changes, or considering discretionary land use permits.
- **Objective 9.18: Phase the development of new fire facilities with growth.**
 - **Policy 9.18.1:** Engage in fire station development advance planning, acknowledging the amount of time needed to fund and construct these facilities.

² LAFD, Mutual Aid: http://lafd.org/sites/default/files/pdf_files/lafdlafdreport186489186_07312014.pdf.

³ Los Angeles Framework Element: <http://cityplanning.lacity.org/Cwd/Framwk/chapters/09/09.htm>.

b. City of Los Angeles General Plan Safety Element

The Safety Element, adopted on November 26, 1996, replaces the 1975 General Plan Safety Element and the 1979 Fire Protection and Prevention Element. The Safety Element contains policies related to the City's response to hazards and natural disasters. Policy 2.1.6 of the Safety Element requires the LAFD to maintain, enforce, and upgrade requirements, procedures, and standards to facilitate effective fire suppression including peak load water flow and building and fire code regulations. In addition, the LAFD is required to revise regulations or procedures to include the establishment of minimum standards for the location and expansion of fire facilities, based on flow, intensity, and type of land use, life hazards, occupancy, and degree of hazards, to provide adequate fire and emergency medical service response.

c. Fire Protection and Prevention Plan and Fire Code

The LAFD provides fire prevention, fire suppression, and life safety services in the City. The 1979 Fire Protection and Prevention Plan (FPPP), part of the Safety Element of the City's General Plan (the General Plan), as well as Article 7 of Chapter V, Public Safety and Protection, of the Los Angeles Municipal Code (the Fire Code), govern the activities of LAFD. The Fire Protection and Prevention Plan of the City of Los Angeles provides an official guide to City Departments, other governmental agencies, developers, and interested citizens for the construction, maintenance, and operation of fire facilities. It is intended to promote fire prevention by maximizing fire safety education and minimizing loss of life through fire prevention programs. Pursuant to this Plan, it may be necessary to expand or relocate existing facilities as land patterns change. The 2017 Fire Code prescribes laws for the safeguarding of life and property from fire, explosion, panic, or other hazardous conditions that may arise in the use or occupancy of buildings, structures, or premises, and such other laws as it may be LAFD's duty to enforce.⁴ The FPPP and the Fire Code serve as guides to City departments, government offices, developers, and the public for the construction, maintenance, and operation of fire protection facilities located within the City. Policies and programs addressed in these documents include: (1) fire station distribution and location; (2) required fire-flow (i.e., water supply and pressure); (3) fire hydrant standards and locations; (4) access provisions; and (5) emergency ambulance service.

⁴ City of Los Angeles Fire Code, 2017 Edition, website: <https://codes.iccsafe.org/public/public/chapter/content/10247/>, accessed August 6, 2018.

d. City Building Code

Division 7, Fire Resistive Materials and Construction of the City's Building Code requires the use of fire-resistive building materials. Division 9, Fire Protection Systems, Section 91.909.3 of the City's Building Code requires that all smoke control systems shall be tested prior to the issuance of a Certificate of Occupancy and, after occupancy of the building, all operating parts of the smoke-control systems shall be retested every six months in accordance with the retest requirements established by the Department of Building and Safety and the LAFD.

e. Propositions F and Q

Proposition F, the City Fire Facilities Bond was approved by voters in November 2000. This original bond allocated \$532.6 million of general obligation bonds to finance the construction and rehabilitation of fire stations and animal shelters. Of this total, the bond allocated \$378.6 million to build 18 new or replacement neighborhood fire and/or paramedic stations, one regional fire station and training facility, and one emergency air operations and helicopter maintenance facility, for a total of 20 Proposition F projects. Of these projects, construction has been completed on 19 facilities and construction is in progress at one station (Hollywood Station No. 82). Measure J, which was approved by voters at the November 7, 2006, County State General Election, is a charter amendment and ordinance that involved technical changes to Proposition F to provide design flexibility for new regional fire stations. Measure J allows new regional fire stations funded by Proposition F located in densely developed areas to be designed and built on one or more properties equaling less than two acres, rather than on a single site of at least two acres. Under Measure J, components of a regional fire station can be built on two or more nearby sites or the facility can be designed to fit on a single site of less than two acres.

Proposition Q, the Citywide Public Safety Bond Measure, approved by voters in March 2002, allocated \$600 million to renovate, improve, expand and construct police, fire, 911, and paramedic facilities. The original scope of Proposition Q involved 13 overall projects consisting of the construction and/or replacement of five police stations; one police station and jail; two bomb squad facilities; one Metro Detention Center; one new Emergency Operations/Fire Dispatch Center; one Valley Traffic Division and Bureau Headquarters; renovation of existing fire facilities; and renovation of police facilities. Four new projects were added in August 2008 to Proposition Q as Phase II work. Although these projects primarily involved the construction of or improvement to Police Department facilities, renovations to existing LAFD facilities throughout the City were also included.

f. Deployment Plan

The Deployment Plan relies heavily on the Apparatus Deployment Analysis Module, which is a component of LAFD's Computer Aided Dispatch Analyst. The software also analyzes area history, response area size/terrain, population density, and target hazards for each fire station district. As a result of the analysis, LAFD has refined resource deployment methods and identified the resource type and quantity necessary to handle the fire safety services needs within each district. Under the Deployment Plan, LAFD has committed to maintaining a fire engine, associated firefighters, and a minimum of one paramedic in every fire station service area. In addition, as 85 percent of LAFD's responses every day are based around emergency medical needs rather than fire incidents, the Deployment Plan realigns LAFD's response footprint to better support emergency medical services calls. Furthermore, under the Deployment Plan, LAFD deploys 79 paramedic ambulances, 43 BLS ambulances and 21 ready reserve ambulances across the City. In addition, there are 82 paramedic assigned companies.

b. Existing Conditions

(1) Existing Facilities

The LAFD's 3,246 uniformed fire personnel protect life, property and the environment through their direct involvement in fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education and community service. A non-sworn cadre of 353 professional support personnel provide technical and administrative expertise in their corresponding pursuit of LAFD's mission. A total of 1,018 uniformed firefighters (including 270 serving as Firefighter/Paramedics), are always on duty at fire department facilities citywide, including 106 neighborhood fire stations strategically located across LAFD's 471 square-mile jurisdiction.⁵ Table IV.L-1 provides information about the LAFD stations near the Project Site. A map of the fire stations in relation to the Project Site is shown in Figure IV.L-1, Fire Station Locations.

⁵ LAFD, Overview: <http://lafd.org/about/lafd-overview>, March 2017.

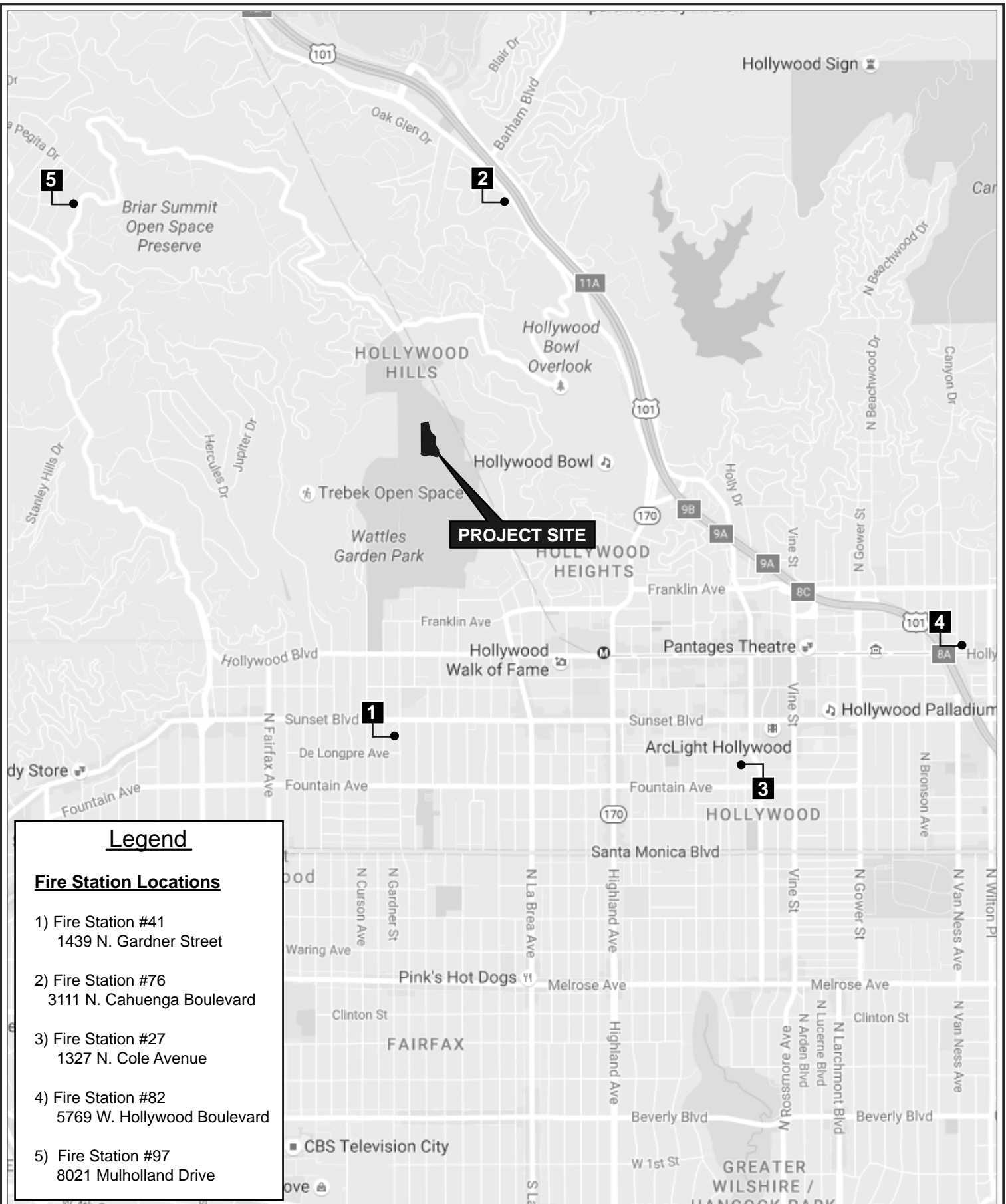


Figure IV.L-1
Fire Stations

**Table IV.L-1
Fire Stations Near the Project Site**

No.	Location	Distance to Site	Equipment and Services	Staff
41	1439 N. Gardner Street	1.8 miles	Engine, Paramedic Rescue Ambulance and Brush Patrol	4
76	3111 N. Cahuenga Blvd.	2.4 miles	Assessment Engine and Paramedic Rescue Ambulance	6
27	1327 N. Cole Avenue	2.5 miles	Task Force, Paramedic Rescue Ambulance BLS Rescue Ambulance and Urban Search and Rescue	15
82	5769 W. Hollywood Blvd.	2.8 miles	Engine and Paramedic Rescue Ambulance	6
97	8021 Mulholland Drive	3.8 miles	Assessment Engine and Paramedic Rescue Ambulance	7

Source: Inter-Department Correspondence from Ralph M. Terrazas, LAFD, April 4, 2018, included in Appendix I of this Draft EIR.

The “first-in” station for the Project Site is Fire Station No. 41, which is located at 1439 N. Gardner Street, approximately 1.8 miles from the Project Site. As shown in Table IV.L-1, Fire Station No. 41 consists of an Engine, Paramedic Rescue, Ambulance, and Brush Patrol.

(2) Response Distance

Response distance relates directly to the linear travel distance (i.e., miles between a station and a project site). The Los Angeles Fire Code specifies the maximum response distances allowed between specific sites and engine and truck companies based on land use and fire flow requirements, which are shown in Table 507.3.3 of the 2017 Fire Code. When the response distances exceed the recommendations contained in Fire Code Table 507.3.3, all structures must be equipped with automatic fire sprinkler systems and any other fire protection devices deemed necessary by the Fire Chief (e.g., fire hydrants, fire signaling systems, fire extinguishers, smoke removal systems, etc.) pursuant to LAMC Section 57.09.07A. Response distance requirements are shown in Table IV.L-2. Based on the response distance requirements shown in Table IV.L-2, the Project would be required to be within 1.5 miles of an Engine Company and 2 miles of a Truck Company. The Project would not be located within 1.5 miles of an Engine Company or 2 miles of a Truck Company, and therefore, the Project would be required to include automatic fire sprinkler systems.

(3) Emergency Access

Emergency vehicles currently access the Project Site via a driveway on North Runyon Canyon Road. Emergency response vehicles can use a variety of options for dealing with traffic, such as using their sirens to clear a path of travel or driving in the lanes of opposing traffic. Lights and other identifying noises compel traffic to pull to the side to provide emergency vehicles with unimpeded access through traffic. All development in the City must comply with the access requirements of the City's Department of Building and Safety and the LAFD to accommodate emergency responders when they reach the Site.

**Table IV.L-2
Fire Flow and Response Distance Requirements**

Type of Land Development	Fire Flow	Response Distance	
Residential		Engine	Truck Co.
Low Density Residential	2,000 gpm from three adjacent fire hydrants flowing simultaneously	1.5 miles	2 miles
High Density Residential and Neighborhood Commercial	4,000 gpm from four adjacent fire hydrants flowing simultaneously	1.5 miles	2 miles
Commercial		Engine	Truck Co.
Industrial and Commercial	6,000 to 9,000 gpm from four to six fire hydrants flowing simultaneously	1 mile	1.5 miles
High Density Industrial and Commercial (Principal Business Districts or Centers)	12,000 gpm available to any block (where local conditions indicate that consideration must be given to simultaneous fires, and additional 2,000 to 8,000 gpm will be required).	3/4 mile	1 mile
<i>Notes: gpm = gallons per minute; Co. = company Source: 2017 Los Angeles Fire Code, Table 507.3.3, website: https://codes.iccsafe.org/public/public/chapter/content/10256/, accessed March 11, 2018.</i>			

(4) Fire Flow and Hydrants

The City's Department of Water and Power (LADWP) provides water supply to meet fire-flow requirements in the City. Fire-flows are supplied by the same water mains as the domestic water system, including the lines located in local streets and major roadways. In general, fire-flow requirements are closely related to land use, as the quantity of water necessary for fire protection varies with the type of development, life hazard, type and level of occupancy, and degree of fire hazard (based on such factors

as site location, building age or type of construction). City fire-flow requirements, as established in the Fire Code, vary from 2,000 gallons per minute (gpm) in low-density residential areas, to 12,000 gpm in high-density commercial or industrial areas. In all cases, a minimum residual water pressure of 20 pounds per square inch (PSI) is to remain in the water system while the required gpm is flowing.⁶ The required fire flow for this Project has been set at 4,000 gpm from four adjacent fire hydrants flowing simultaneously.⁷ The Project Site is located in a Very High Fire Hazard Severity Zone, which consists of areas of the City that are at high fire risk on windy, hot and dry days.⁸ All water mains and lines that are designed and sized according to LADWP standards take into account fire flow and pressure requirements. The locations of the existing fire hydrants are shown in the Approved Fire Hydrant and Access Plan, which is included in Appendix I-2 of this Draft EIR.

3. Project Impacts

a. Thresholds of Significance

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

Threshold (a): Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services.

For this analysis, the Appendix G Thresholds are relied upon. The analysis utilizes factors and considerations identified in the 2006 L.A. CEQA Thresholds Guide, as appropriate, to assist in answering the Appendix G Threshold questions.

The L.A. CEQA Thresholds Guide (Thresholds Guide) identifies the following criterion to evaluate fire protection impacts:

⁶ City of Los Angeles Fire Code §57.09.06 A.2.

⁷ Correspondence from Ralph M. Terrazas, Fire Chief, Los Angeles Fire Department, April 4, 2018, included in Appendix I of this Draft EIR.

⁸ Zimas Parcel Profile Report, website:
<http://zimas.lacity.org/reports/243387cd1a9344c195d09ce665cbc8b2.pdf>, accessed August 6, 2018.

- A project would normally have a significant impact on fire protection if it requires the addition of a new fire station or the expansion, consolidation or relocation of an existing facility to maintain service.

In assessing impacts related to fire protection services in this section, the City will use Appendix G as the thresholds of significance. The criteria identified above from the *Thresholds Guide* will be used where applicable and relevant to assist in analyzing the Appendix G thresholds.

In the context of this question, it is important to note that consistent with *City of Hayward v. Trustees of California State University* (2015) 242 Cal.App.4th 833, significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area of a project, and potential impacts on public safety services are not an environmental impact that CEQA requires a project applicant to mitigate: “[T]he obligation to provide adequate fire and emergency medical services is the responsibility of the city. (Cal. Const., art. XIII, § 35, subd. (a)(2) [“The protection of the public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services.”].) Thus, the need for additional fire protection services is not an environmental impact that CEQA requires a project proponent to mitigate.

b. Methodology

LAFD evaluates impacts to fire prevention and protection services on a project-by-project basis, taking into account service size population, fire hydrant sizing and placement standards, distance for engine and truck company, proposed land uses, required fire flow, project access, and project design features that would reduce or increase the demand for fire protection services. Based on these factors, a determination is made as to whether the LAFD would require a new or physically altered facility to maintain acceptable service levels, the construction of which could result in a potentially significant environmental impact.

c. Project Design Features

The following Project Design Features are applicable to the Project:

- FIR-PDF-1** A new fire hydrant is proposed as part of the Project and shall be installed as shown on the approved fire hydrant and access map, stamped as approved on August 9, 2018.

Also, as discussed in Section IV.M Traffic of this Draft EIR, the Project includes a Construction Traffic Management Plan (CTMP) (Project Design Feature TR-PDF-1), which would include provisions for maintaining emergency access to the Project Site during construction.

d. Analysis of Project Impacts

Threshold (a): Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services?

(1) Construction

Construction activities associated with the Project may temporarily increase demand for fire protection and emergency medical services. Construction activities may also cause the occasional exposure of combustible materials, such as wood, plastics, sawdust, coverings and coatings, to heat sources from machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings.

To comply with California Department of Industrial Relations, Division of Occupational Safety and Health (Cal-OSHA) and Fire and Building Code requirements, construction managers and personnel would be trained in fire prevention and emergency response, and fire suppression equipment specific to construction would be maintained on-site.⁹ Project construction would comply with all applicable codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. City and State regulations and code requirements would, in part, require personnel to be trained in fire prevention and emergency response, maintenance of fire suppression equipment, and implementation of proper procedures for storage and handling of flammable materials.

Construction activities also have the potential to affect fire protection services, such as emergency response, by adding construction traffic to the street network and by necessitating partial lane closures during street improvements and utility installations.

⁹ <https://www.dir.ca.gov/title8/1920.html>

However, these impacts, while potentially adverse, would be less than significant for the following reasons:

- General “good housekeeping” procedures employed by the construction contractors and the work crews (e.g., maintaining mechanical equipment, proper storage of flammable materials, cleanup of spills of flammable liquid) would minimize these hazards;
- Impacts on traffic that could temporarily affect emergency response are addressed through a Construction Traffic Management Plan (CTMP), provided as Project Design Feature TR-PDF-1 in Section IV.M, Transportation/Traffic, which would ensure that adequate and safe access remains available within and near the Project Site and includes traffic management strategies during construction activities. The CTMP would outline and dictate how construction operations would be carried out, and would identify specific actions to reduce effects on the surrounding community.
- In addition to traffic, there are other factors that influence emergency response, including risk appraisal, geography, distance, traffic signals, and roadway characteristics. While even with the CTMP, it is acknowledged that the Project would incrementally increase traffic, which could temporarily affect emergency response during construction.

Overall, construction is not considered to be a high-risk activity, and the LAFD is equipped and prepared to deal with construction-related traffic and fires should they occur. Furthermore, Section 21806 of the CVC allows drivers of emergency vehicles to have a variety of options for avoiding traffic, such as using sirens to clear a path of travel and driving in the lanes of opposing traffic.

Due to the limited nature of construction activities and compliance with applicable codes and fire safety standards, Project construction would not be expected to adversely impact firefighting and emergency services to the extent that there would be a need for the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility, the construction of which would cause significant environmental effects, in order to maintain acceptable fire protection services. Therefore, impacts associated with construction of the Project on fire protection services would be less than significant.

(2) Operation

The Project would increase the amount of developed square footage on the Project Site, but would not involve an increase in residents at the Project Site. As the LAFD currently serves the existing residence on the Project Site, and also currently serves the needs of hikers in Runyon Canyon Park, the construction of a new home on the Project Site would only nominally affect the need for fire protection services at the Project Site. In addition, based on the Project Site's location within a Very High Fire Hazard Severity Zone, the Project Applicant currently follows fuel modification requirements and maintains an approximately 2.88 acres of fuel modification zones as required by the LAFD. The maintenance of the fuel modification zones would continue with development of the Project. LAFD will be involved as part of the plan check process and will provide all necessary conditions of approval for the Project. The paragraphs below discuss the criteria for determining the Project's operational impacts to fire protection services, including fire flow and response distance.

a. Fire Flow

Prior to construction of the Project, the Water Operations Division of the LADWP would perform a detailed fire-flow study at the time of permit review (plan check) in order to ascertain whether further water system or site-specific improvements would be necessary. Hydrants, water lines, and water tanks would be installed per Division 7, Section 57.09.06 of the Fire Code requirements. In addition, the LAFD would review the plans for compliance with applicable City Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards, thereby ensuring that the Project would not create any undue fire hazard. Currently there are four fire hydrants around the perimeter of the Project Site (the locations are depicted on the fire hydrant and access map contained in Appendix I-2 of this Draft EIR). In addition, and as also shown on the fire hydrant and access map, a new fire hydrant is proposed as part of the Project (formally provided above as Project Design Feature FIR-PDF-1). The combination of the four existing fire hydrants and the proposed hydrant would allow the Project to meet the LAFD's fire flow requirement of 4,000 gpm from four adjacent fire hydrants flowing simultaneously. Thus, fire flow to the Project Site would be adequate, and the associated impact would be less than significant.

b. Response Distance

The nearest fire station with an engine is Station No. 41, which is approximately 1.8 miles from the Project Site. Additional fire stations within 3.0 miles include Station Nos. 76, 27, and 82. Based on the required fire flow 4,000 gpm, the first engine company should be within 1.5 miles of the Project Site and the first truck company

should be within 2.0 miles of the Project Site. As the closest fire station with an engine company is 1.8 miles from the Project Site, the Project would not meet this standard. Therefore, based on LAFD's response distance criteria, fire protection would be inadequate and impacts to LAFD services would be significant.

Because the Project exceeds the distance standards, it would be required to install an automatic fire sprinkler system and any additional equipment or systems (e.g., fire hydrants, fire signaling systems, fire extinguishers, smoke removal systems, etc.) deemed necessary by the Fire Chief pursuant to LAMC Section 57.09.07A. The installation of an automatic fire sprinkler system and any additional equipment or systems deemed necessary would ensure that fire and emergency medical service impacts associated with the response distance between the Project Site and Fire Station No. 41 would be consistent with the Code requirement. Impacts would be less than significant and operation of the Project would not require the addition of a new fire service facility, or the expansion, consolidation, or relocation of an existing station.

Automatic fire sprinkler systems are required for the proposed land uses as part of the Project. The Project will also implement the requirements provided by the LAFD included in the Inter-Departmental Correspondence dated April 4, 2018 (included as Appendix I-1 of this Draft EIR), which would reduce the potential for catastrophic fire damage or risk to lives, as a result of the Project's location more than two miles from a truck company. Therefore, given implementation of the regulatory requirements of the LAFD, including the automatic fire sprinkler system incorporated into the proposed single-family home, Project operational impacts related to response distance would be less than significant.

c. Emergency Access

At the time of permit review (plan check), the LAFD would review the Project plans for compliance with the Los Angeles Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards and would not approve permits unless emergency access meets their standards, thereby ensuring that the Project would not create any undue fire hazard. Vehicular access to the Project would be provided via an existing driveway along North Runyon Canyon Road, which is accessed from Mulholland Drive. Emergency access is also available to the ridge via the hiking trail, which has been recently paved. As such, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Furthermore, the Project's driveway and internal circulation would be designed to incorporate all applicable City Building Code and Fire Code requirements regarding site access, including providing adequate emergency vehicle access, which would be provided in a T-shaped fire department turnaround on the Project driveway.

Further, as mentioned above, the Project would comply with all LAFD requirements and recommendations related to emergency access. Through compliance with applicable provisions of the Fire Code, Project impacts on emergency access are considered less than significant.

d. Conclusion

As described above, the Project would only nominally affect the need for fire protection services at the Project Site. While the Project would exceed the LAFD's response distance threshold, automatic fire sprinkler systems will be installed in the proposed home, and the Project will implement any other equipment or systems deemed necessary, which would ensure that all LAFD requirements related to emergency access are followed. Further, the LAFD, LADOT, Department of Building and Safety, as well as the Department of City Planning would review the Project's site plan prior to Project approval to ensure the Project complies with all applicable City regulations related to fire protection and emergency response.

In addition, as the Project would contribute to the City's General Fund (some of which is allocated to the LAFD), through property taxes, and the Department continues to improve their systems, programs, and practices, as well as use the existing tools available to them (e.g. use of sirens, driving in the opposing traffic lanes, use of alternate routes and multiple station response). Construction activities associated with the Project would not result in significant impacts to fire and emergency services and/or facilities. Project operation would not require the addition of a new fire station or the expansion, consolidation, or relocation of an existing facility, the construction of which would cause significant environmental effects, in order to maintain service and would not inhibit LAFD emergency response.

Operational impacts to fire and emergency medical services, including impacts to LAFD facilities and equipment, response distances, access, and emergency response, the Project Site location in a VHFHSZ, and the ability of the fire suppression water infrastructure system to provide the necessary fire flows would not result in substantial adverse physical impacts requiring new, expanded, or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.

4. Cumulative Impacts

Implementation of the Project in conjunction with the five related projects identified in Section III, Environmental Setting, could potentially increase demand for fire

protection services, although like the Project, each of the related projects propose a single-family residence. On-going development in the City requires the LAFD to continually evaluate the need for new or physically altered facilities to maintain adequate service ratios. Similar to the Project, the related projects are subject to the requirements of the 2017 Los Angeles Fire Code, including Table 507.3.3, which mandates the installation of automatic fire sprinkler systems if a project is located at a distance to the nearest fire station that exceeds the LAFD required response distance. Each of the related projects also would be required to consult with LAFD and LADWP during the design phase to establish fire-flow requirements for the land uses proposed and to determine the adequacy of existing fire flow infrastructure serving their respective project sites. Any LAFD or LADWP-required upgrades to the water distribution systems serving the cumulative projects would be addressed for each individual project in conjunction with their project approvals. Each of the related projects also would be individually subject to LAFD review and would be required to comply with all applicable LAFD, Department of Building and Safety, and other City fire safety requirements, including hydrant and access improvements, if necessary, to adequately mitigate fire protection impacts.

Any related projects further than the response distance requirements permit are required to incorporate fire sprinklers as well as meet other requirements that may be stipulated by the LAFD on a project-by-project basis. If any of the related projects creates demands on fire protection staffing, equipment, or facilities such that development of a new or expanded station would be required, potential environmental impacts would be addressed in conjunction with the environmental review for that specific project. Because the Project would not create such demands, its contribution to these impacts is not cumulatively considerable.

The related projects also would contribute to funding fire protection services in the area by generating annual revenue from property taxes that would be deposited into the City's General Fund. This revenue potentially could be used to fund the construction of future fire protection facilities and support hiring more firefighters, which would further minimize impacts on fire protection services. However, as the Project and the five related projects all propose single-family residences, the cumulative demand on fire protection services would not require a new fire station. **As such, cumulative impacts on fire protection services would be less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts related to fire protection services would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

M. Transportation/Traffic

1. Introduction

This section evaluates the Project's potential impacts related to transportation and traffic.

2. Environmental Setting

a. Regulatory Framework

(1) Federal

No federal regulations are relevant to the thresholds discussed below.

(2) State

a. Complete Streets Act

The Complete Streets Act (Assembly Bill 1358; Government Code Sections 65040.2 and 65302) was signed into law in 2008. The law requires that when updating the part of a local general plan that addresses roadways and traffic flows, cities and counties ensure those plans account for the needs of all roadway users. Specifically, the legislation requires cities and counties to ensure that local roads and streets adequately accommodate the needs of bicyclists, pedestrians, and transit riders, as well as motorists.

b. Senate Bill 743

California Senate Bill 743 (SB 743), which went into effect in January 2014, requires the Governor's Office of Planning and Research to change the California Environmental Quality Act (CEQA) guidelines regarding the analysis of transportation impacts. Under SB 743, the focus of transportation analysis will shift from driver delay to reduction of vehicle miles traveled (VMT), reduction of greenhouse gas emissions (GHG), creation of multimodal networks, and promotion of mixed-use developments. Although originally scheduled to be fully implemented by January 1, 2016, an extension to July 1, 2020 allows jurisdictions more time to establish an analysis methodology. The City of Los Angeles is in the process of developing VMT-related protocols to be implemented in the CEQA process, but these are not yet in effect.

(3) Regional

a. Congestion Management Program

The 2010 Los Angeles County Congestion Management Program (CMP) is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program and State Transportation Improvement Program processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed for (1) all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, it requires a review of potential impacts to the regional transit system.

(4) Local

a. City of Los Angeles General Plan and Mobility Plan 2035

The City of Los Angeles General Plan Framework Element (Framework Element) sets forth general guidance regarding land use issues for the entire City of Los Angeles and defines citywide policies regarding land use. The goals, objectives, policies, and related implementation programs of the Framework Element's Transportation Chapter are set forth in the Transportation Element of the General Plan adopted by the City in September 1999.

In August 2015, the City Council initially adopted Mobility Plan 2035, which replaces the Transportation Element. Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning, January 2016) (the "Mobility Plan"). The Mobility Plan revised street standards previously outlined in the *City of Los Angeles Transportation Element of the General Plan* (Los Angeles Department of City Planning, 1999) in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc.

b. City of Los Angeles Municipal Code

(i) Construction Traffic

With regard to construction traffic, Section 41.40 of the Los Angeles Municipal Code (LAMC) limits construction activities to the hours from 7:00 A.M. to 9:00 P.M. on

weekdays and from 8:00 A.M. to 6:00 P.M. on Saturdays and national holidays. No construction is permitted on Sundays.

b. Existing Conditions

The Project Site is located on an approximately 4.5-acre site within Runyon Canyon Park. The Project Site is located on the west side of Runyon Canyon Road, approximately 0.5 miles south of Mulholland Drive and approximately 0.75 miles west of the Hollywood Freeway (U.S. Route 101). In the Project area, Mulholland Drive is designated as a Scenic Parkway. Runyon Canyon Road is a gated and paved fire road that is closed to public motor vehicle access that runs predominately north/south through the center of Runyon Canyon Park, and is accessed from Mulholland Drive. The Project Site is accessed via a paved, private (gated) driveway from Runyon Canyon Road.

Within Runyon Canyon Park, pedestrians and hikers access Runyon Canyon Road and also numerous smaller hiking trails throughout the park.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to transportation and traffic if it would:

Threshold (a): Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; or

Threshold (b): Conflict with an applicable congestion management program including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways; or

Threshold (c): Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

Threshold (d): Result in inadequate emergency access?

b. Methodology

The analysis of Project impacts with respect to transportation and traffic examines the potential for the Project to result in any additional traffic trips to

surrounding roadways. In addition, the analysis considers whether the Project would have the potential to conflict with any transit, bicycle, or pedestrian facilities. For these analyses, the size of the Project was used to determine whether the Project would result in any traffic trips, or impacts to transit facilities. With respect to potential impacts related to bicycle and pedestrian facilities, the Project Site's location within Runyon Canyon Park was considered. The Project's design and the physical conditions of the Project area were used to make determinations as to whether the Project would result in any impacts related to emergency access or create any hazardous conditions as a result of the Project design.

c. Project Design Features

The following Project Design Feature is applicable to the Project:

TR-PDF-1 Construction Traffic Management Plan. Prior to the start of construction, the Project Applicant shall prepare a detailed Construction Traffic Management Plan (CTMP), including street closure information, detour plans, haul routes (if required), and staging plans, and submit it to LADOT for review and approval. The Construction Traffic Management Plan shall include a Worksite Traffic Control Plan, which will facilitate traffic and pedestrian movement, and minimize the potential conflicts between construction activities, street traffic, bicyclists, and pedestrians. The Construction Traffic Management Plan and Worksite Traffic Control Plan shall be based on the nature and timing of specific construction activities and other projects in the vicinity, and shall include, but not be limited to, the following measures:

- Maintain access for land uses in the vicinity of the Project Site during construction;
- Organize Project Site deliveries and the staging of all equipment and materials in the most efficient manner possible, and on-site where possible, to avoid an impact to the surrounding roadways;
- Coordinate truck activity and deliveries to ensure trucks do not wait to unload or load at the Project Site and impact roadway traffic, and if needed, utilize an organized off-site staging area;
- Provide advance notification of adjacent property owners and occupants of upcoming construction activities, including durations and daily hours of operation;

- Prohibit construction worker or equipment parking on adjacent streets;
- Provide temporary pedestrian, bicycle, and vehicular traffic controls during all construction activities to ensure traffic safety on public rights of way. These controls shall include flag people trained in pedestrian and bicycle safety;
- Schedule construction activities to reduce the effect on traffic flow on surrounding arterial streets;
- Contain construction activity within the Project Site boundaries to the extent feasible;
- Implement safety precautions for pedestrians and bicyclists through such measures as alternate routing and protection barriers as appropriate;
- Limit sidewalk and lane closures to the maximum extent possible, and avoid peak hours to the extent possible. Where such closures are necessary, the Project's Worksite Traffic Control Plan will identify the location of any sidewalk or lane closures and identify all traffic detours and control measures, signs, delineators, and work instructions to be implemented by the construction contractor through the duration of demolition and construction activity;
- Schedule construction-related deliveries, haul trips, etc., so as to occur outside the commuter peak hours to the extent feasible; and/or
- Prepare a haul truck route program that specifies the construction truck routes to and from the Project Site.

d. Analysis of Project Impacts

Threshold (a): Would the Project conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

(1) Construction

Traffic impacts from construction activities could occur as a result of the following types of activities:

- Increases in truck traffic associated with export or import of fill materials and delivery of construction materials;

- Increases in automobile traffic associated with construction workers traveling to and from the Project Site;
- Blocking of existing vehicle or pedestrian access to Runyon Canyon Park and Runyon Canyon Road.

a. Construction Truck Trips

The Project is anticipated to be constructed over a period of approximately 18 months. The construction period would include sub-phases of site preparation, grading/excavation, building construction, architectural coatings, and paving/landscaping.

With the implementation of the Construction Traffic Management Plan (provided as Project Design Feature TR-PDF-1), above, it is anticipated that truck activity to and from the Project Site would occur outside of the morning and afternoon commuter peak hours (7:00-9:00 AM, and 4:00-6:00 PM). In addition, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during Project construction.

As discussed in Section II, Project Description, the Project is requesting a Zoning Administrator's Determination to allow 28,012 cubic yards of grading (14,008 cubic yards of fill to be relocated on-site with no net export) so no haul route would be required. However, if the Zoning Administrator's Determination is denied, haul trucks (if required) will travel on approved truck routes designated within the City. As shown in Figures II-13 and II-14 (in Section II, Project Description), trucks exiting the Project Site would travel to the 101 Hollywood Freeway. For trucks traveling north, they would exit the Project Site and travel east on Mulholland Drive to the 101 Freeway northbound on-ramp. For trucks traveling south, they would exit the Project Site and travel east on Mulholland Drive to the 101 freeway southbound on-ramp. The haul route (if required) will be reviewed and approved by the City. If haul trucks are required (if the requested Zoning Administrator's Determination is denied), it is estimated that there would be a total of 141 haul trips over a one-month grading period, with approximately seven haul trips per day using haul trucks with a capacity of eight cubic yards. Implementation of the Construction Traffic Management Plan (provided as Project Design Feature TR-PDF-1), above, would ensure that truck activity to and from the Project Site would occur outside of the morning and afternoon commuter peak hours (7:00-9:00 AM, and 4:00-6:00 PM). In addition, worker trips to and from the Project Site would also occur outside of the peak hours. Therefore, no peak hour construction traffic impacts are expected during the grading phase of construction.

b. Construction Worker Trips and Parking

The traffic impacts associated with construction workers depends on the number of construction workers employed during various phases of construction, as well as the travel mode and travel time of the workers. It is estimated that approximately 20 workers would be on-site during each phase of construction. In general, the hours of construction typically require workers to be on-site before the weekday morning commuter peak period and allow them to leave before or after the afternoon commuter peak period (i.e., arrive at the site prior to 7:00 AM and depart before 4:00 PM or after 6:00 PM). Therefore, the fact that most construction worker trips will occur outside of the typical weekday commuter peak periods, coupled with the Project's implementation of a Construction Traffic Management Plan, would ensure that traffic impacts during construction are less than significant.

During construction, adequate parking for construction workers would be secured on-site or, if needed, at another off-site parking location. Restrictions against workers parking in the public right-of-way in the vicinity of (or adjacent to) the Project Site will be identified as part of the Construction Management Plan (Project Design Feature TR-PDF-1). Therefore, impacts related to on-street parking during Project construction would be less than significant.

All construction materials storage and truck staging would be contained on-site, unless specified in the Construction Management Plan. Project construction would also require delivery of construction materials. Construction activities, such as materials delivery and loading, would occur only during off-peak hours on certain days and would not be a regular event. Therefore, no peak hour construction traffic impacts are expected during the grading phase of construction.

c. Bicycle/Pedestrian Access and Safety Impacts

Construction of the Project would be largely contained within the Project Site (where there is no pedestrian or bicycle access) and would not affect adjacent park access. In addition, the Construction Management Plan (Project Design Feature TR-PDF-1) would ensure the adoption of safety procedures creating a safe environment for those accessing the adjacent public park during Project construction. Therefore, temporary impacts related to access and safety during Project construction would be less than significant.

(2) Operation

a. Trip Generation

The Project proposes development of a new single-family home on the Project Site. However, the Project is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. **Therefore, the Project would result in a less than significant impact with respect to trip generation during Project operation.**

b. Transit, Bicycle, and Pedestrian Facilities

The Project would not result in any additional residents at the Project Site when compared to existing uses, as the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the Project would not result in any additional transit trips, or in any additional residents who would use bicycle or pedestrian facilities.

In addition, as discussed previously, pedestrians and hikers access Runyon Canyon Road and also numerous smaller hiking trails throughout Runyon Canyon Park. Development of the Project would not result in any change to the ability of pedestrians and hikers to access Runyon Canyon Road and the other hiking trails throughout the park, as development would be confined to the Project Site.

Therefore, the Project would not conflict with any plans regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and impacts would be less than significant.

Threshold (b): Would the Project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) and in the Initial Study (Appendix A of this Draft EIR), the Los Angeles County Congestion Management Program (CMP) requires that new development projects analyze potential project impacts on CMP monitored intersections locations where a project would add 50 or more trips during either the AM or PM weekday peak hours and on CMP monitored freeway segments where a project would add 150 or more trips in either direction during either the AM or PM weekday peak hours. As discussed in the response to threshold (a),

above, the Project would generate a negligible amount of trips in general and, in particular, the Project is not located immediately adjacent to a freeway. **Therefore, a CMP analysis would not be required, and no impact would occur with respect to a congestion management program.**

Threshold (c): Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

As discussed in Chapter VI (subsection Impacts Found not to be Significant) and in the Initial Study (Appendix A of this Draft EIR), a significant impact may occur if a project were to include a new roadway design, introduce a new land use or project features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if project access or other features were designed in such a way as to create hazardous conditions. **The Project does not include any sharp curves, dangerous intersections, or incompatible uses. No off-site traffic improvements are proposed or warranted in the area surrounding the Project Site, and as such no impacts would occur.**

Threshold (d): Would the Project result in inadequate emergency access?

(1) Construction

During Project Construction, the Construction Traffic Management Plan (Project Design Feature TR-PDF-1) will include measures to ensure pedestrian and bicycle safety along the affected sidewalks, bicycle facilities, and temporary walkways (e.g., use of directional signage, maintaining continuous and unobstructed pedestrian paths, and/or providing overhead covering). Temporary traffic controls will be provided to direct traffic around any closures as required in the Construction Traffic Management Plan (Project Design Feature TR-PDF-1). **Therefore, based on the above, impacts related to emergency access during Project construction would be less than significant.**

(2) Operation

Vehicular access to the Project would be provided via an existing driveway along North Runyon Canyon Road, which is accessed from Mulholland Drive. Emergency access is also available to the ridge via the hiking trail, which has been recently paved. As such, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. **Therefore, Project impacts with respect to emergency response/evacuation during operation would be less than significant.** See also Section IV.L, Public Services—Fire Protection, of this Draft EIR, for a detailed analysis regarding emergency response.

4. Cumulative Impacts

a. Construction Impacts

Construction of the Project in combination with the five related projects identified in Table III-2 (in Section III, Environmental Setting) could result in cumulative traffic impacts during construction if other cumulative projects were to use the same streets as the Project for construction-related trips. Construction vehicles accessing the Project Site, as well as haul trips (if required), would use Mulholland Drive to and from Runyon Canyon Road. Likewise, it is anticipated that the five other related projects in the vicinity would also use Mulholland Drive for access for construction vehicles and/or haul trips. Many, and likely most, of the construction workers (for the Project and the related projects) are anticipated to arrive and depart the individual construction sites during off-peak hours (i.e., arrive prior to 7:00 AM and depart at or before 4:00 PM), thereby minimizing construction-related trips during the AM and PM peak hour periods. In addition, the haul truck routes for the applicable related projects would require approval by LADOT and/or LADBS according to the location of the individual construction site and the ultimate destination. The City's established review process would take into consideration overlapping construction projects and would balance haul routes to minimize the impacts of cumulative hauling on any particular roadway. In addition, as with the Project, it is anticipated that the related projects would be required to prepare a Construction Traffic Management Plan to ensure that potential construction-related impacts are reduced. **Therefore, cumulative traffic impacts during construction would be less than significant.**

b. Operational Impacts

As discussed above, the Project is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. The Project would result in no net change with respect to trip generation during operation, and as a result, the Project's contribution to cumulative intersection impacts during operation would be less than significant. **Therefore, cumulative traffic impacts during operation would be less than significant.**

c. Bicycle, Pedestrian, and Vehicular Safety

As analyzed above, Project impacts related to bicycle, pedestrian, and vehicular safety would be less than significant. **As shown in Figure III-7 (Related Projects Location Map), none of the related projects are located in close enough proximity to the Project Site to result in cumulative impacts related to bicycle, pedestrian,**

and vehicular safety, and therefore, cumulative impacts would be less than significant.

d. Access

Access to the Project would continue to be provided via an existing driveway along North Runyon Canyon Road, which is unchanged from the current access for the existing residence located on the Project Site. Thus, the Project would result in a less than significant impact with respect to access. In addition, none of the related projects are located in close enough proximity to the Project Site to result in cumulative access impacts. **As a result, cumulative impacts would be less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts related to transportation would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance after Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

N. Tribal Cultural Resources

1. Introduction

This section analyzes potential impacts to tribal cultural resources. The information and analysis in this section is based in part on the following item, which is included in Appendix F to this Draft EIR:

- F-4 Sacred Lands File Search, Native American Heritage Commission, April 19, 2017.
- F-5 Tribal Cultural Resources Assessment for the 3003 Runyon Canyon Project, SWCA, April 2019.
- F-6 AB 52 Completion of Consultation Letter, City of Los Angeles, July 8, 2019.

2. Environmental Setting

a. Regulatory Framework

(1) Assembly Bill 52

California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains. On September 25, 2014, Governor Brown signed into law Assembly Bill 52 (AB 52), which amended PRC Section 5097.94 and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to establish that an analysis of a project's impact on cultural resources include whether the project would impact "tribal cultural resources." As set forth in PRC Section 21074:

(a) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.¹

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1.² In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2,³ or a “non-unique archaeological resource” as defined in subdivision (h) of Section 21083.2⁴ may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

For a project for which a Notice of Preparation for a Draft EIR was filed on or after July 1, 2015, the lead agency is required to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of a

¹ *Per subdivision (k) of PRC Section 5020.1, “local register of historical resources” means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.*

² *Subdivision (c) of PRC Section 5024.1 provides the National Register criteria for listing of historical resources in the California Register.*

³ *Per subdivision (g) of PRC Section 21083.2, a unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; or (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.*

⁴ *Per subdivision (h) of PRC Section 21083.2, a non-unique archaeological resource means an archaeological artifact, object, or site which does not meet the criteria in subdivision (g). A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects.*

proposed project, if: (1) the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area; and (2) the tribe requests consultation, prior to the release of a negative declaration, mitigated negative declaration or environmental impact report for a project. Section 21080.3.1(b) of the PRC defines “consultation” with a cross-reference to Government Code Section 65352.4, which applies when local governments consult with tribes on certain planning documents and states the following:

“Consultation” means the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties’ cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American tribes shall be conducted in a way that is mutually respectful of each party’s sovereignty. Consultation shall also recognize the tribes’ potential needs for confidentiality with respect to places that have traditional tribal cultural significance.

The new provisions in Section 21080.3.2(a) of the PRC enumerate topics that may be addressed during consultation, including identification of the significance of tribal cultural resources, determination of the potential significance of Project impacts on tribal cultural resources and the type of environmental document that should be prepared, and identification of possible mitigation measures and Project alternatives. Section 21084.3 of the PRC also states that public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. This section of the PRC also includes examples of mitigation measures that may be considered to avoid or minimize the significant adverse effects.

Consultation ends when either of the following occurs prior to the release of the environmental document:⁵

1. Both parties agree to measures to avoid or mitigate a significant effect on a tribal cultural resource. Agreed upon mitigation measures shall be recommended for inclusion in the environmental document (PRC Section 21082.3(a)); or
2. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Sections 21080.3.2(b)(1)-(2) and 21080.3.1(b)(1)).

⁵ Governor’s Office of Planning and Research, *Tribal Consultation Guidelines, Supplement to General Plan Guidelines*, November 14, 2005.

(2) Human Remains

With regard to human remains, CEQA Guidelines Section 15064.5 addresses consultation requirements if an initial study identifies the existence of, or the probable likelihood of Native American human remains within the project site. This section of the CEQA Guidelines as well as Health and Safety Code Section 7050.5 and PRC Section 5097.9 also address treatment of human remains in the event of accidental discovery.

b. Existing Conditions

The Project Site consists of a partially graded and developed hillside lot on the southern flank of the Santa Monica Mountains, in the Runyon Canyon Urban Wilderness portion of the City of Los Angeles, California. It is located on the west side of Runyon Canyon Road, about half of a mile south of Mulholland Drive and about three-quarters of a mile west of the Hollywood Freeway (U.S. Route 101). The Project Site is developed with a two-story single-family residence with a carport attached to the west side of the dwelling. A pool and outdoor barbecue area are present in the front (north) yard of the residence.

According to a records search completed by the South Central Coastal Information Center (SCCIC), included in Appendix F-2 of this Draft EIR, there are no known archaeological resources within the Project Site. In addition, the results of the sacred lands file (SLF) search provided by the Native American Heritage Commission (NAHC), included in Appendix F-4 of this Draft EIR, indicated that no sacred lands or sites are documented within the area of potential effect.

As discussed in detail in the Geologic and Soils Engineering Exploration Report (included in Appendix G of this Draft EIR), fill, associated with previous Project Site grading, blankets portions of the Project Site to a maximum observed thickness of 1.5 feet in the vicinity of Test Pit 3. The fill may be thicker elsewhere onsite in areas not explored. The fill consists of sandy clay and clayey sand that is orange/brown, dark brown, moist, slightly porous to porous, firm/medium dense, and contains roots, rootlets, gravel, and cobbles to 6 inches in diameter.

Additionally, natural residual soil was encountered in 6 of the 8 Test Pits. The soil consists of silty sand and gravelly clay that is tan brown, dark brown, red orange-brown, dry to moist, loose to medium dense/stiff, and contains roots, rootlets, and gravel to 3-inches in diameter. The thickness of the soil observed is on the order of 6-inches.

Bedrock underlying the Project Site and encountered in the test pits consists of sandstone and conglomerate of the Chico Formation and quartz diorite as mapped by

T.W. Dibblee.⁶ The quartz diorite and conglomerate bedrock are well exposed in road cuts and crops out in steep slopes.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G to the CEQA Guidelines, a project would have a significant effect on tribal cultural if the project would:

Threshold (a): [C]ause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The L.A. CEQA Thresholds Guide does not specifically address tribal cultural resources. In assessing impacts related to tribal cultural resources in this section, the City will use Appendix G as the thresholds of significance.

b. Methodology

The City complied with the provisions of AB 52 to address potential impacts associated with Native American resources. In addition, a records search was conducted with the Native American Heritage Commission (Sacred Lands File Search).

⁶ *Geologic Map of the Santa Monica Mountains and Vicinity, CD Compilation, 2001.*

c. Project Design Features

No specific project design features are proposed with regard to tribal cultural resources.

d. Analysis of Project Impacts

Threshold (a): Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or***
- ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

(1) Historic Resources

Based on the research and analysis conducted and the evaluation provided in the Historical Resource Report (included as Appendix F-1 to this Draft EIR), and as discussed in greater detail in Draft EIR Section IV.D, Cultural Resources, the existing residence on the Project Site (the Headley/Handley House) is an existing historical resource. However, based on the analysis included in the Historical Resource Report, the Headley/Handley House is not considered a tribal cultural resource.

(2) Sacred Lands File Search

On April 19, 2017, the NAHC submitted the results of a sacred lands file search (SLF) in response to the City's notification of the Project. The NAHC response letter indicated that no sacred lands or sites are documented within the Project area. However, the records maintained by the NAHC and the California Resources Information System are not exhaustive, and a negative response to these searches

does not preclude the existence of a cultural place. The SLF records search did not identify any sacred lands or sites in the Project area.

(3) Assembly Bill (AB) 52 Consultation

In compliance with the requirements of AB 52, the City provided formal notification of the Project on November 30, 2016. Letters were sent via mail to the following California Native American tribes that requested notification:

1. Fernandeano Tataviam Band of Mission Indians
2. Gabrieleño Band of Mission Indians – Kizh Nation
3. Gabrielino Tongva Indians of California Tribal Council
4. Gabrielino/Tongva Nation⁷
5. Gabrielino/Tongva Nation
6. Gabrielino/Tongva San Gabriel Band of Mission Indians
7. Gabrielino-Tongva Tribe
8. San Fernando Band of Mission Indians
9. Soboba Band of Luiseño Indians
10. Torres Martinez Desert Cahuilla Indians

On December 5, 2016, the City received a consultation request pursuant to AB 52 from the Gabrielino Band of Mission Indians – Kizh Nation. None of the other nine tribal contacts that were sent notification requested consultation. The City began the consultation process via its letter dated December 16, 2016, to Chairman Andrew Salas of the Gabrielino Band of Mission Indians – Kizh Nation (attached to the tribal cultural resources report, which is included as Appendix F-5 to this Draft EIR). As part of the subsequent consultation, Chairman Salas participated in a conference call with the City on February 27, 2017, to discuss oral history, traditional land use practices, and indicators of sensitivity for tribal cultural resources. Although Chairman Salas indicated that no information was available for the specific Project Site, he requested that a mitigation measure requiring on-site tribal monitors for all ground disturbing activities. As a result of the information provided in the tribal cultural resources report prepared for the Project (attached as Appendix F-5 to this Draft EIR), and the information provided by the Tribe during the February 2017 conference call, the City, after acting in good faith and after reasonable effort, has concluded that mutual agreement cannot be reached for purposes of AB 52. The City communicated this information via a letter dated July 8, 2019 (attached as Appendix F-6 of this Draft EIR).

⁷ *The Gabrielino/Tongva Nation has two different mailing addresses and contact persons. Letters were sent to both.*

As the City received no responses within 30 days of the notification letters sent to the other nine tribal parties, AB 52 consultation is considered to be closed for those groups. The notification letters, records of correspondence, and all document submitted are included as part of the appendices to the tribal cultural resources report (which is included in Appendix F-5 of this Draft EIR).

a. Sensitivity Assessment

As discussed above, the NAHC's SLF search indicates that no Native American cultural resources are located in or near the Project Site. The nearest Gabrielino placenames referenced in ethnographic and historical literature are the villages of Kaweenga and Maawnga. Kaweenga was located 2.5 miles north of the Project Site on the north-facing side of the Santa Monica Mountains, possibly at the Campo de Cahuenga site, near present-day Universal Studios. Maawnga was located at least 5 miles to the southeast of the Project Site, possibly within what is now Elysian Park.

SWCA conducted a confidential CHRIS records search for the Project Site and a 0.5-mile radius. Four previous studies were identified, two of which included pedestrian surveys conducted within the same 130-acre study area, which included the current Project Site. Each study incorporated an intensive pedestrian survey, the first in 1976 by Roger Desautels and the second in 1982 by Clay Singer. Both surveys were negative for any Native American archaeological resources (or of any other kind). Desautels concluded that the southern portion of the 130-acre project area (south of the current Project Site) was well-suited for prehistoric habitation but was not confident the surface or sub-surface was adequately assessed for the presence of artifacts or features in this part of the former study area. Singer re-surveyed the same area and concurred with Desautels's finding that the southernmost portion of the study area was the most sensitive for archaeological resources but added that it was also subject to the greatest level of disturbance from cutting, grading, filling, and dumping. Among the observations made during his survey, Singer noted that the rocks observed in the study area were mostly decomposing granites and other materials not extensively exploited by Native Americans. Singer concludes by stating that the lack of archaeological resources is likely the result of the extensive disturbance to the habitable portions of the property that occurred between ca. 1935 and 1945, and that there is "little or no potential of yielding intact or significant cultural remains of any kind."

The CHRIS search conducted by SWCA did not identify any archaeological sites or artifacts affiliated with Native Americans (i.e., those that could be considered a tribal cultural resource) within the Project Site or 0.5-mile radius. The closest sites located in the Santa Monica Mountains with physical remains that could be reliably associated with Native Americans are all located west of Interstate 405, more than 8.5 miles northwest of the Project Site. There are three resources—two isolated finds and one

site—in the CHRIS that are at least attributed to Native American activity, which are mapped between 2.3 and 2.5 miles from the Project Site. However, the age and origin of the isolated finds could not be verified and there are no archaeological reports or records associated with the site (P-19-001096). Each of the isolated finds consisted of a single artifact and were found on the north-facing side of the Santa Monica Mountains, 2.3 to 2.5 miles to the west. Neither of the finds could be verified as being Native American artifacts based on their physical setting or diagnostic attributes; therefore, both are considered to be unreliable indicators of tribal cultural resource sensitivity. Site P-19-001096 is listed as Historic-Cultural Monument No. 112, which is described as a “Gabrielino Indian Site,” mapped within the Fern Dell recreation area, approximately 2.5 miles east of the Project Site. The record for the site on-file at the CHRIS is a memo prepared by the Los Angeles Cultural Heritage Board describing “sites of villages at the mouth of Fern Dell Canyon” that were “discovered by archaeological surveys.” No information could be found pertaining to the archaeological surveys referenced in the memo. Furthermore, it is unclear what the boundary was based on and whether any artifacts or features were ever recorded.

While no evidence was found to confirm the presence of a former Gabrielino village site at P-19-001096, the location of a Native American camp at the base of foothills and near permanent or semi-permanent sources of water (i.e., springs and seasonal streams) is consistent with settlement patterns described in ethnographic sources and observed in the archaeological record. Such locations afforded not only direct access to water, but also tended to support plant and animal species used by Native Americans, which create generally favorable conditions for seasonal or semi-permanent camps. Among the two previous studies by Desautels and Singer that assessed the archaeological sensitivity of Runyon Canyon (specifically), and those that discuss Native American settlement patterns in the Los Angeles Basin, San Fernando Valley, and neighboring coastal areas (in general), there is a consensus that canyon outlets were intensively utilized by Native Americans and are therefore, highly sensitive for Native American sites being present, at least prior to historical developments. The areas immediately adjacent to these canyon outlets are not considered as having the same level of heightened sensitivity for tribal cultural resources, but by simply located nearby, the adjacent areas are considered to have a slight increase in sensitivity.

Archaeological studies of settlement patterns also discuss the constraints of archaeological fieldwork for determining whether the physical remains of any such Native American sites may be preserved, which can vary greatly between urbanized and rural settings. Specifically, many sites originally identified on the surface by archaeologists in the early- to mid-twentieth century, were subsequently subject to varying levels of disturbance from infrastructure, housing, and other developments throughout the later part of the twentieth century. Therefore, more detailed site-specific

analysis is required to assess the subsurface preservation potential within the Project Site and establish the overall sensitivity for the presence of tribal cultural resources within a given area.

The Project Site is located along a ridgeline and upslope from at least one natural spring mapped in 1888. The earliest aerial photographs of the area were taken in 1927 and show a trail along the ridgeline passing through the Project Site. The hills were known to have been actively used for hunting and horseback riding by non-Native Americans during the Historic period, so there is no way to determine if the specific trail was a former Native American footpath. Because of the close proximity of the Project Site to a spring and its location along a ridgeline likely used for travel by Native Americans, the sensitivity for tribal cultural resources in the Project Site is slightly increased. However, the overall sensitivity for tribal cultural resources is significantly reduced because impacts to the setting from historical developments, which are likely to have destroyed the physical remains of any Native American activities that may have once been present.

The Project API—the portions of the Project Site in which ground disturbances are proposed occur—is set almost entirely within areas previously disturbed from the construction of extant buildings, structures, and roads, as well as installation of hardscaping and landscaping elements. The initial alterations, including construction of the road, began in 1945 and were completed in 1966. The portions of the API outside the existing disturbances are all set along steep hillsides that are not considered to be areas in which tribal cultural resources are likely to occur. The likelihood of remains being preserved (i.e., buried) beneath or along the periphery of historical disturbances is also considered to be low. Soil surveys, geological mapping, as well as three separate geotechnical studies all describe the Project Site as set within relatively thin, residual soils, i.e., soils that form through natural processes in-place rather than being deposited through water or gravity, deposited atop bedrock. Residual soils do not typically result in artifacts once left on the surface becoming deeply buried. Accumulations of colluvium, i.e., sediments deposited by gravity (e.g., during mass wasting), can create deeply buried deposits but colluvial deposition was only observed on the steep side slopes, which are very unlikely to have had any artifacts left on the surface, and was relatively thin. The portions of the API located on the relatively flat portions of the ridge have all been subject to surface disturbances. Sediment profiles from two geophysical test pits excavated in this portion of the API observed artificial fill in both samples, one measuring 1 foot deep, and the other 2 feet deep. In both test pits, the artificial fill was underlain by residual soils that extended an additional 2 feet below the surface before contacting bedrock. As a result of these findings, SWCA considers the preservation potential to be very low across the entire Project Site and API.

Because of these factors, SWCA finds the Project Site has a low sensitivity for containing tribal cultural resources.

Therefore, based on these negative results, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe. Impacts to tribal cultural resources would be less than significant, and no mitigation measures are required.

While no tribal cultural resources are anticipated to be affected by the Project, the City has established a standard condition of approval to address inadvertent discovery of tribal cultural resources. A copy of this condition of approval is included in Appendix F-6 of this Draft EIR. Should tribal cultural resources be inadvertently encountered, this condition of approval provides for temporarily halting of construction activities near the encounter and the Project's certified construction monitor notifying the City and Native American tribes that have informed the City that they are traditionally and culturally affiliated with the geographic area of the Project. If the City determines that the object or artifact appears to be a tribal cultural resource, the City would provide any affected tribe a reasonable period of time to conduct a site visit and make recommendations regarding the monitoring of future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources.

4. Cumulative impacts

Impacts related to tribal cultural resources are site-specific and are assessed on a site-by-site basis. So, while there might be a potential impact on one particular development site, that impact would not ordinarily extend beyond the spatial limits of that project site. There could be circumstances in which a tribal cultural resource extends over more than one property, but in that event, there could be a cumulative effect only if all affected properties were in the process of being developed and physical alterations to the ground were proposed in all of those projects. **There are no adjacent related projects that could potential result in affects to unknown tribal cultural resources that may lie in the subsurface of the project site; therefore, there could be no cumulative impacts affecting tribal cultural resources.**

5. Mitigation Measures

Project-level and cumulative impacts with regard to tribal cultural resources would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

Impacts were determined to be less than significant without mitigation. Therefore, no mitigation measures were required or included, and the impact level remains less than significant.

IV. Environmental Impact Analysis

O. Wildfire

1. Introduction

This section addresses the potential environmental impacts of the Project with respect to wildfires.

2. Environmental Setting

a. Wildfire Fundamentals¹

(1) Ignition

The fire ignition triangle describes the elements necessary for starting a fire: oxygen, heat, and fuel. All three must be present:

- Oxygen (air) – to start and sustain combusting. Air supply can be increased by windy conditions.
- Heat – to raise fuel temperatures to their ignition point and to ignite fuels. Common sources of heat are lightning and human activities.
- Fuel – to sustain and/or carry flames. Combustible materials include trees, shrubs, grasses, and structures.

Wildfires are controlled by removing one of the three elements. For example, fuels can be treated or removed to create fire breaks; oxygen can be reduced or eliminated by smothering flames with water; and heat transfer can be reduced by covering vegetation with fire retardants.

(2) Heat Transfer

Once fuels are ignited, heat is transferred in three ways:

¹ Information in this subsection provided by the following sources: <http://idahofirewise.org/fire-ecology-and-management/wildfire-ignition-behavior-and-effects/> and http://www.auburn.edu/academic/forestry_wildlife/fire/topos_effect.htm, accessed August 6, 2019.

- Conduction transfers heat from a warmer object to a cooler object until both temperatures are the same.
- Radiation transfers heat through air by short energy waves (infrared rays), which preheat and dehydrate fuels to their ignition point.
- Convection transfers heat through the movement of liquid or gas. Wildfires generate gases that rise in columns, usually accompanied by sparks, embers, and burning twigs. These convective columns move downwind, ahead of the fire front, carrying embers that start spot fires.

(3) Wildfire Behavior and Effects

Many factors affect how a wildfire burns, how fast it moves, and how difficult it is to control. The three main factors that affect wildfire behavior are weather, topography, and fuels.

a. Weather

Weather includes wind, temperature, cloudiness, moisture, and air pressure. High temperatures and low humidity cause vegetation to dry and wildfires to burn rapidly. Wind not only moves wildfires across landscapes, but also supplies oxygen that can cause fires to grow swiftly. Wind also blows embers for miles, igniting new spot fires. Rain and high humidity can slow or extinguish fires, while storms can cause fire activity to increase or become completely unpredictable.

b. Topography

Topography refers to the physical features of an area, including slope and aspect (the direction it faces).

(i) Slope

Slope affects the spread of fire in two ways: preheating (convection and radiation) and draft. On slopes, the less dense air next to the surface (warmed by the surface) forms a pathway for this lighter air to rise along the slope causing a draft. Cooler air to replace the warmer, less dense air comes from below. Consequently, local winds usually blow up-slope during the day. Because of the local, up-slope winds, wildfires usually burn up-slope. The steeper the slope, the more rapidly the fire will burn up-slope (and more intensely). The reason is because of both greater radiant heat and greater convective heat. A fire will spread uphill because of the preheating of the fuel and the up-slope draft unless the general wind is strong enough to overcome these two forces. The flames are closer to the fuel on the uphill side and they receive more radiant heat. This results in more preheating and faster igniting of the fuel. The heated air rises along the slope increasing the draft that further increases the rate of spread. As a result

of winds blowing up-slope, more convective heat also reaches the fuel in front of the fire and it is pre-heated more quickly to the ignition temperature.

The opposite is true at night. When the slope becomes shaded, the surface loses heat rapidly and becomes cool. The air adjacent to the surface also cools and becomes more dense, and thus heavier, and it will begin to flow down-slope.

Down-slope winds usually are no stronger than 2 to 3 miles per hour (mph), whereas up-slope winds can be as high as 5 to 10 mph. The steeper the slope and the longer it is, the stronger the wind. The change of air from up-slope to down-slope is usually gradual so the air may become calm for an hour or more during the change. Down-slope winds begin as soon as soon as the slopes go into shadow.

If the fire is at the bottom of the slope, the entire slope to the ridge top lies in the path of the fire. Such fires will usually be larger because most are not controlled until they reach the top of the ridge.

(ii) Aspect

Aspect is the direction that a slope faces. The direction a slope faces determines how much radiated heat it will receive from the sun. Slopes facing south to southwest will receive the most solar radiation. As a result, this slope is warmer than slopes facing a northerly direction. The warmer slope results in lower relative humidity, higher temperatures, and rapid loss of moisture. The fuel will tend to be dryer, which ignites and burns readily. In addition, the period that fires will ignite and burn will also be longer on south-facing slopes.

(iii) Shape of Country

The direction and speed of the wind can be greatly affected by topography. Ridges and mountains are barriers to the horizontal movement of air. The wind is deflected over them adding to the local up-slope convective winds from the surface heating by the sun. When the ridge tops are reached, updrafts from the other side may bend the flames back. Ridge tops are good places to place control lines.

Ravines and gullies will form paths for the flow of air and may change direction of the fire. In narrow ravines, heat will dry out fuels on the opposite side and they will readily ignite. Intersecting drainages and sharp turns will cause turbulence.

Saddles and gaps along a ridge will funnel the wind and increase its speed. Winds will also be pretty gusty and spotting is more likely. Fires will tend to burn toward them and increase in intensity and rate of spread. This change can be abrupt.

Box canyons are ravines that end at or near the ridge top. They have no gaps or prominent saddles for the preheated air to escape. They provide avenues for intense updrafts into the ravine and heated air is trapped as the fuel is preheated. Heated gases trapped in a ravine or cove can all ignite at one time as ignition temperature is reached trapping anyone that may be in its path. Such occurrence is known as a “flashover.”

(iv) Barriers

Barriers are anything (natural or man-made) that can stop or slow down the spread of fire. Examples are: fields, roads, streams, lakes, swamps (if wet), rocky outcrops, and old burns. They should be considered in planning a prescribed burn or in control of a wildfire. They can also be barriers to equipment.

A thick stand of trees will also act as a barrier to the wind. It will be forced over the top causing gusty conditions. An opening in the stand will channel the wind much the same way as saddles.

c. Fuels

Fuels are vegetation and structures. Their characteristics have a great effect on wildfire behavior. Large, dense trees burn for hours and generate a lot of heat. Dried grasses, on the other hand, produce a flashy fire that burns quickly and does not generate much heat.

b. Regulatory Framework

(1) Federal

No federal regulations are relevant to the thresholds discussed below.

(2) State

a. Public Resources Code §4201-4204 and Government Code §51175-89

California law (Public Resources Code §4201-4204 and Government Code §51175-89) requires the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, called Fire Hazard Severity Zones (FHSZ), influence how people construct buildings and protect property to reduce risk associated with wildland fires. There are three zones, based on increasing fire hazard: medium, high, and very high.

State Responsibility Areas (SRA) are areas where the State has financial responsibility for wildland fire protection. Local Responsibility Areas (LRA) are areas where local governments have financial responsibility for wildland fire protection. CAL FIRE adopted Fire Hazard Severity Zone maps for SRAs in November 2007, and updated Fire Hazard Severity Maps for LRAs were released from June to September 2008.

b. California Building Code

California Code of Regulations (CCR), Title 24, California Building Code (CBC) is a compilation of building standards, including fire safety standards for residential and commercial buildings. CBC standards are based on: (1) building standards that have been adopted by State agencies without change from a national model code; (2) building standards based on a national model code that have been modified to address particular California conditions; and (3) building standards authorized by the California legislature, not covered by the national model code. The California Fire Code (CFC) is part of the CBC. Typical fire safety requirements of the CFC include: (1) the installation of sprinklers in all high-rise buildings; (2) the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and (3) the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The CFC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Specific California Fire Code regulations have been incorporated by reference with amendments in the Los Angeles Building Code, Fire Safety Regulations.

(i) Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure

Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure) applies to building materials used in the exterior design and construction of new buildings located within the wildland-urban interface fire area. This includes buildings located in local agency designated Very High Fire Hazard Severity Zones (VHFHSZ), which are discussed below.

The purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in a VHFHSZ to resist the intrusion of flames or burning embers projected by a vegetation fire and contribute to a systematic reduction in conflagration losses.

Under Section 701A.3 (Application), the local building official shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including

those for materials and construction methods for wildfire exposure. Under Section 701A.4 (Inspection and Certification), the local building official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure. Section 701A (Vegetation Management Compliance) requires that, prior to building permit final approval, the property shall be in compliance with the vegetation clearance requirements prescribed in California Public Resources Code 4291 California Government Code Section. Specific fire resistance standards apply to fire doors, building materials, roofing, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The CFC applies to all occupancies in California, except where more stringent standards have been adopted by local agencies.

Applicable to construction within a VHFHSZ, Section 703A (Standards of Quality) provides for the testing of fire resistance in building materials, Section 704A requires ignition resistant construction, Section 705A establishes standards for roofing, and Section 707A (Exterior Covering) provides for fire resistant exterior covering.

c. California Fire Code

CCR Title 24, Part 9, the 2016 California Fire Code (CFC) sets forth requirements that have been incorporated by reference in the LAMC Chapter V, Public Safety and Protection, Article 7, Fire Protection and Prevention (Los Angeles Fire Code), except where superseded by more stringent local regulations. Typical fire safety requirements of the CFC include emergency planning and preparedness (Chapter 4), fire protection systems (Chapter 9), and means of egress (Chapter 10), and requirements for wildland-urban interface fire areas (Chapter 49).

d. California Structural Fire Prevention Field Guide

The Bates Bill, Assembly Bill No. 337, was enacted requiring local jurisdictions to identify and establish VHFHSZs. Subsequent to Assembly Bill No. 337, Assembly Bill Nos. 3819 and 747, which are more restrictive, have been enacted reinforcing the provisions of Assembly Bill No. 337. Under the Bates Bill, the State requires municipal fire agencies to identify VHFHSVs. Assembly Bill 3819 increased the roofing requirements of the Bates Bill to require the use of Class A roofing materials within areas with high fire risk.

The California Structural Fire Prevention Field Guide for Mitigation of Wildland Fires implements the requirements of state legislation for the reduction or prevention of wildland fires. An important concept set forth in the California Structural Fire Prevention

Field Guide is the creation of defensible space in the area within the perimeter of a parcel, development, neighborhood or community where basic wildland fire prevention practices and measures are implemented, providing the key point of defense from an approaching wildfire, an encroaching wildfire or an escaping structure fire. The perimeter is the area of the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. Properly maintained emergency vehicle access, emergency water reserves, street signs, building identification, and fuel modification should characterize the perimeter area. The California Department of Forestry and Fire Protection (CDF) can provide guidance to local jurisdictions, agencies, professionals and the public in implementing these measures.

The design and construction of structures, subdivisions and developments in SRAs, as well as in LRAs, must provide for defensible space, including built-in wildland fire prevention as prescribed by local jurisdictions and fire agencies. The employment of defensible space is just one step in mitigating wildland fire losses. The primary key of this concept is built-in fire prevention. Each home built in the wildlands must provide some basic level of self-protection, including water, adequate roads, flammable vegetation clearance and proper building identification. Each resident and developer must accept part of the responsibility for incorporating basic perimeter fire prevention measures into the design and construction of wildland structures and developments. The incorporation of defensible space provides a margin of safety for wildland and structural firefighters, provides a point of attack or defense, and increases the survivability of structures.

e. Firefighting Resources of California Organized for Potential Emergencies

Firefighting Resources of California Organized for Potential Emergencies (FIRESCOPE) was established as a statewide program under provisions set forth by in 1989 under Senate Bill 27. Under Health and Safety Code Section 13070, the Office of Emergency Services (OES), Cal Fire, and the State Fire Marshal (SFM) are to jointly establish and administer the FIRESCOPE Program. The experience resulted in a partnership of local, state and federal fire agencies to develop improved coordination for fire suppression management and emergency response. LAFD was a leader in developing these FIRESCOPE programs and one of the first to make them operational. The programs established plans and procedures for improved interagency coordination, including common terminology, organizational structures (chain of command) and response procedures and for compatible communications (e.g., radio frequencies) and equipment systems (e.g., hose connections). The goal was to make agency personnel and equipment readily interchangeable within and between jurisdictions and command levels to facilitate effective deployment and efficient utilization of limited resources

between federal, state, regional, district and local agencies and operational levels. When incidents exceed or are anticipated to exceed the resources at a particular response level, assistance is requested from the next level, which in turn evaluates the needs and assembles and allocates personnel and other resources. According to the City of Los Angeles General Plan Safety Element, FIRESCOPE was used to shift firefighters the FIRESCOPE facilities in other parts of the state to fight wildland fires in and around the City of Los Angeles.

f. California Fire Services and Rescue Emergency Mutual Aid Plan

Under the California Fire Service and Rescue Emergency Mutual Aid Plan (Mutual Aid Plan), the California Emergency Management Agency and Fire and Rescue Division enables coordination between local and State fire agencies. Managed by the Governor's Office of Emergency Services (OES), the Mutual Aid Plan outlines procedures for establishing mutual aid agreements at the local, operational, regional, and State levels, and divides the State into six mutual aid regions to facilitate the coordination of mutual aid. The LAFD is located in Region I. Through the Mutual Aid Plan, the OES is informed of conditions in each geographic and organizational area of the state, and the occurrence or imminent threat of disaster. All OES Mutual Aid participants monitor a dedicated radio frequency for fire events that are beyond the capabilities of the responding fire department and provide aid in accordance with the management direction of the OES.

(3) County of Los Angeles

a. Office of Emergency Management

The Office of Emergency Management (OEM), established by Chapter 2.68 of the County Code, is responsible for organizing and directing emergency preparedness efforts, as well as the day-to-day coordination efforts, for the County's Emergency Management Organization. The OEM's broad responsibilities include, among others, planning and coordination of emergency services on a Countywide basis.

The County organizes a formal mutual aid agreement between all emergency responders (including police and fire) within its jurisdiction to provide emergency personnel and resources to assist other member agencies during emergency and/or conditions of extreme peril. The Mutual Aid Operations Plan provides a structure of response should an emergency arise which requires immediate response by a greater number of emergency personnel than would be available to individual departments using all other available resources.

(4) City of Los Angeles

a. General Plan Safety Element

The City's General Plan Safety Element (the Safety Element), adopted on November 26, 1996 replaces the 1975 General Plan Safety Element and the 1979 Fire Protection and Prevention Element, contains policies and objectives related to the City's response to hazards and natural disasters. The Safety Element contains the following goals, objectives, and policies related to hazard mitigation and emergency response, applicable to wildland fires:²

GOAL 1: A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to fire, water related hazard, seismic event, geologic conditions or release of hazardous materials disasters is minimized.

- **Objective 1.1:** Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City's comprehensive emergency response and recovery plans and programs.
 - **Policy 1.1.6:** State and federal regulations. Assure compliance with applicable state and federal planning and development regulations, e.g., Alquist-Priolo Earthquake Fault Zoning Act, State Mapping Act and Cobey-Alquist Flood Plain Management Act.

GOAL 1: A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage and disruption of the social and economic life of the City and its immediate environs.

- **Objective 2.1:** Develop and implement comprehensive emergency response plans and programs that are integrated with each other and with the City's comprehensive hazard mitigation and recovery plans and programs.
 - **Policy 2.1.5:** Response. Develop, implement and continue to improve the City's ability to respond to emergency events.
 - **Policy 2.1.6:** Standards/fire. Continue to maintain, enforce and upgrade requirements, procedures and standards to facilitate more effective fire suppression. [All peel load water and other standards, code requirements (including minimum road widths, access,

² Los Angeles Safety Element: <http://cityplanning.lacity.org/Cwd/gnlpln/safetyelt.pdf>

clearances around structures) and other requirements or procedures related to fire suppression implement this policy.]

Exhibit H of the Safety Element identifies critical facilities and lifeline systems within the City. According to Exhibit H, the closest disaster routes to the Project Site are Mulholland Drive, Laurel Canyon Boulevard, and Highland Avenue.

b. 2018 Local Hazard Mitigation Plan

The *City of Los Angeles 2018 Local Hazard Mitigation Plan* is the second comprehensive update to the City's hazard mitigation plan, meeting federal requirements for regular review and update of hazard mitigation plans. The City prepared its initial local hazard mitigation plan in 2004, which was approved in 2005, and a revised plan was prepared in 2010, approved in 2011. The Hazard Mitigation Plan contains the following objectives applicable to fire hazards:

- Reduce repetitive property losses due to flood, fire, and earthquake by updating land use, design, and construction policies.
- Identify natural and handmade hazards that threaten life and property in the City.
- Use hazard data while reviewing proposed development opportunities.
- Encourage the incorporation of mitigation measures into repairs, major alterations, new development, and redevelopment practices, especially in areas subject to substantial hazard risk.
- Incorporate risk reduction considerations in new and updated infrastructure and development plans to reduce the impacts of hazards.
- Continue providing City emergency services with training and equipment to address all identified hazards.
- Implement mitigation programs and projects that protect not only life and property, but the environment as well.

c. Fire Protection and Prevention Plan and Fire Code

The Los Angeles Fire Department (LAFD) provides fire prevention, fire suppression, and life safety services in the City. The 1979 Fire Protection and Prevention Plan (FPPP), part of the Safety Element of the City's General Plan (the General Plan), as well as Article 7 of Chapter V, Public Safety and Protection, of the Los Angeles Municipal Code (the Fire Code), govern the activities of LAFD. The Fire Protection and Prevention Plan of the City of Los Angeles provides an official guide to City Departments, other governmental agencies, developers, and interested citizens for the construction, maintenance, and operation of fire facilities. It is intended to promote fire prevention by maximizing fire safety education and minimizing loss of life through

fire prevention programs. Pursuant to this Plan, it may be necessary to expand or relocate existing facilities as land patterns change. The 2017 Fire Code prescribes laws for the safeguarding of life and property from fire, explosion, panic, or other hazardous conditions that may arise in the use or occupancy of buildings, structures, or premises, and such other laws as it may be LAFD's duty to enforce, and also includes regulations for development and activities within wildland-urban interface fire areas (Chapter 49).³ The FPPP and the Fire Code serve as guides to City departments, government offices, developers, and the public for the construction, maintenance, and operation of fire protection facilities located within the City. Policies and programs addressed in these documents include: (1) fire station distribution and location; (2) required fire-flow (i.e., water supply and pressure); (3) fire hydrant standards and locations; (4) access provisions; and (5) emergency ambulance service.

(i) Brush Clearance

Fire Code Section 57.322.1 (General Brush Clearance) establishes standards for general brush clearance, including vegetation within 100 feet of buildings (Section 57.322.1.1.1, Vegetation within 100 Feet of Buildings), trees within 100 feet of buildings (Section 57.322.1.1.2, Trees Within 100 Feet of Buildings), road clearance (Section 57.322.1.1.6, Road and Fence Clearance), and a second 100-foot modification (Section 57.322.1.1.7, Second 100 Foot Modification). Landscape vegetation is addressed in Section 57.322.1.1.8.

Under Section 57.322.1, no owner or user of a parcel of land shall allow any hazardous refuse or hazardous weeds, trees, or other vegetation, which, by reason of proximity to a building or structure, constitutes a fire hazard. This applies to hazardous weeds, trees, or other vegetation that are in a condition and location as to provide a ready fuel supply to augment the spread or intensity of a fire. Under Section 57.322.1.1.1, all dead trees must be removed from the property and all weeds and other vegetation shall be maintained at a height of no more than three inches, if such weeds or other vegetation are within 100 feet of a building or structure located on such property or on adjacent property. This requirement does not apply to the maintenance of trees, ornamental shrubbery or plants which are used as ground cover provided such do not provide a ready fuel supply to augment the spread or intensity of a fire; nor does it apply to a native shrub provided such shrub is trimmed up from the ground to one-third of its height, does not exceed 216 cubic feet in volume.

³ *City of Los Angeles Fire Code, 2017 Edition, website: <https://codes.iccsafe.org/public/public/chapter/content/10247/>, accessed August 6, 2018.*

Section 57.322.1.1.2, requires that trees that are 18 feet or more in height and are within 100 feet of any building or structure or within 10 feet of that portion of any highway, street, alley or driveway which is improved or used for vehicle travel or other vehicular purposes, so that no leafy foliage, twigs, or branches are within six feet of the ground. Trees and shrubs less than 18 feet shall be trimmed up 1/3 their height. Section 57.322.1.1.6 requires that all weeds and other vegetation located within 10 feet of an edge of that portion of any highway, street, alley or driveway improved or used for vehicular travel or for other vehicular purposes be maintained at a height of not more than three inches. This does not require the removal of trees, ornamental shrubbery or plants which are used as ground cover, provided such do not provide a ready fuel supply to augment the spread or intensity of a fire, nor require the removal of native shrubs.

Fire Code Section 57.322.1.1.7 requires a second 100-foot modification in which all hazardous vegetation and other combustible growth within the first 100 feet surrounding structures be cleared. The purpose is to reduce the amount and/or modify the arrangement of hazardous vegetation within the area comprising the second 100 feet for a total distance of 200 feet from any structure unless otherwise specified by the Fire Chief.

d. City Building Code

Division 7, Fire Resistive Materials and Construction of the City's Building Code requires the use of fire-resistive building materials and provides additional requirements and construction methods for development within a Very High Fire Hazard Severity Zone (VHFHSZ). This chapter includes, for example, requirements for development in a VHFHSZ related to roof coverings, eaves, wall coverings, windows, and decks, as well as requirements for use of ignition-resistant materials.

e. City of Los Angeles Ordinance No. 185789

City of Los Angeles Ordinance No. 185789, effective September 14, 2018, provides specific requirements for engaging in brush clearance activities in a VHFHSZ, such as a prohibition on the use of certain metal cutting blades for brush clearance activities.

c. Existing Conditions

The Project Site is located in a VHFHSZ, which consists of areas of the City that are at high fire risk on windy, hot and dry days.⁴ The Site is a partially graded and hillside lot on the southern flank of the Santa Monica Mountains, in the Runyon Canyon Urban Wilderness area (Runyon Canyon Park). Topographically, the Project Site sits on the crest of a south-trending secondary ridge, with a level building pad on the east-central portion of the Site and descending slopes to the west, south, and east toward Runyon Canyon Road. Slopes as high as 340 vertical feet descend to the east and south and as high as 175 vertical feet descend to the west. Physical relief within the property limits is about 160 feet. Past grading consisted of cutting along the eastern and southern portions of the Site to create the hiking trail and cutting on the central portion of the Site to create the level building pad.

The Project Site 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 area 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 majority of the Project Site and immediate surrounding area consist of developed land or area subject to ongoing fuel modification as required by the LAFD. Surrounding areas support native vegetation communities including chaparral and coastal sage scrub. Based on the Project's location in a VHFHSZ, the Project Applicant currently follows fuel modification requirements and maintains approximately 2.88 acres of fuel modification zones as required by the LAFD.

3. Project Impacts

a. Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would have a significant impact related to wildfire if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and the Project would:

Threshold (a): Substantially impair an adopted emergency response plan or emergency evacuation plan; or

⁴ Zimas Parcel Profile Report, website:
<http://zimas.lacity.org/reports/243387cd1a9344c195d09ce665cbc8b2.pdf>, accessed August 6, 2018.

Threshold (b): *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; or*

Threshold (c): *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or*

Threshold (d): *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

b. Methodology

To evaluate impacts related to wildfires, the conditions related to the Project Site's inclusion in a VHFHSZ were examined (such as location, topography, and brush conditions) were examined. In addition, an assessment was made as to whether the development of the Project would interfere with an emergency response plan, would exacerbate a wildfire, or expose people or structures to other risks as a result of a wildfire. This assessment was made in part based on a comparison of the existing physical conditions at the Project Site with the physical conditions of the Project Site after the development of the Project.

c. Project Design Features

As discussed in Section IV.G Greenhouse Gas Emissions of this Draft EIR, the design of the Project shall include green roofs that are planted with grass.

As discussed in Section IV.M Transportation/Traffic of this Draft EIR, the Project includes a Construction Traffic Management Plan (CTMP) (Project Design Feature TR-PDF-1), which would include provisions for maintaining emergency access to the Project Site during construction.

d. Analysis of Project Impacts

Threshold (a): *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

(1) Construction

As discussed above, Exhibit H of the General Plan Safety Element identifies Mulholland Drive, Laurel Canyon Boulevard, and Highland Avenue as the closest disaster routes to the Project Site. While Project construction vehicles would not use either Laurel Canyon Boulevard or Highland Avenue, construction trucks and equipment traveling to and from the Project Site from the US-101 freeway are likely to use Mulholland Drive. However, a Construction Management Plan (formally identified as TR-PDF-1 in Section IV.M, Transportation/Traffic, of this Draft EIR) including street closure information, detour plans, haul routes (if required), and staging plans would be prepared and submitted to the City for review and approval. The Construction Traffic Management Plan would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community, including ensuring pedestrian and bicycle safety, as well as ensuring that, to the extent feasible, Project construction traffic occurs outside of peak traffic hours and that construction activities are scheduled to reduce the effect on traffic flow on surrounding streets (such as Mulholland Drive). **Therefore, construction of the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.**

(2) Operation

As discussed in Section IV.M, Transportation/Traffic, the Project is estimated to generate a negligible amount of daily and peak hour trips during operation as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move into the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, once constructed, the Project would not result in any changes with respect to traffic on Mulholland Drive (the closest disaster route) when compared to existing conditions. **As such, during operation, the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.**

Threshold (b): Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

As discussed above under “Existing Conditions,” past grading on the Project Site consisted of cutting along the eastern and southern portions of the Site to create the hiking trail and cutting on the central portion of the Site to create the level building pad. The Project was designed to be built into the hillside and the home itself sits below the

disturbed ridgeline on the western slope of the property. The proposed residence is sited physically within the bluff (partially buried) so that the only face of the residence that would be visible is on the western elevation. Therefore, the construction of the proposed residence would not worsen slopes in terms of steepness, nor would the Project have an effect on the pattern of the wind, particularly as a result of the Project's design partially buried in the bluff. As described earlier in this section, fires generally burn upslope. The Project's location near the top of the ridgeline would therefore not result in a potential to exacerbate wildfire risks that could burn upslope and result in the spread of a wildfire.

As also discussed above, the Project Site lies in an area with a mild climate tempered by cool sea breezes with light average wind speeds. The area 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. Development of the Project on a Project Site that already contains an existing residence would not result in any changes to wind patterns and would therefore not exacerbate any wildfire risks as a result of winds.

Further, the Project would be designed and constructed in accordance with applicable regulations related to construction of structures in a VHFHSZ, including California Fire Code Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure. In addition, after development of the Project, the Project Applicant would continue to maintain the approximately 2.88 acres of fuel modification zones as required by the LAFD. Therefore, the Project would not exacerbate any fire risks that could result in the uncontrolled spread of a wildfire.

The Project's design, proposed fire hydrant, existing and future fuel modification activities, and compliance with existing regulations regarding development in a VHFHSZ would reduce the flammability of the Project and also facilitate quick containment in the event of a structure fire, so that it would not spread quickly off the Project Site and into the surrounding brush area. As such, the Project would not exacerbate risks with respect to the uncontrolled spread of a wildfire. **Therefore, development of the Project would not exacerbate wildfire risks, and impacts would be less than significant.**

Threshold (c): Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

(1) Construction

Construction of the Project may require the installation of temporary power poles for construction activities, but would not require installation of other infrastructure, such as roads, fuel breaks, or emergency water sources. Based on the scale of the Project (one single-family home), the installation of temporary power poles during construction would not exacerbate fire risk that would result in impacts to the environment. **As such, Project impacts would be less than significant.**

(2) Operation

Based on the Project Site's location within a Very High Fire Hazard Severity Zone, the Project Applicant currently follows fuel modification requirements and maintains approximately 2.88 acres of fuel modification zones as required by the LAFD. The maintenance of the fuel modification zones would continue with development of the Project.

Prior to construction of the Project, the Water Operations Division of the LADWP would perform a detailed fire-flow study at the time of permit review (plan check) in order to ascertain whether further water system or site-specific improvements would be necessary. Hydrants and water lines would be installed per Division 7, Section 57.09.06 of the Fire Code requirements. In addition, the LAFD would review the plans for compliance with applicable City Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards, thereby ensuring that the Project would not create any undue fire hazard. Currently there are four fire hydrants around the perimeter of the Project Site (the locations are depicted on the fire hydrant and access map contained in Appendix I-2 of this Draft EIR). In addition, and as also shown on the fire hydrant and access map, a new fire hydrant is proposed as part of the Project (formally provided as FIR-PDF-1, in Section IV.L, Public Services – Fire Protection). The combination of the four existing fire hydrants and the proposed hydrant would allow the Project to meet the LAFD's fire flow requirement of 4,000 gpm from four adjacent fire hydrants flowing simultaneously. Thus, fire flow to the Project Site would be adequate, and the associated impact would be less than significant.

Beyond the proposed hydrant discussed in the preceding paragraph, the Project would not require the installation or maintenance of new infrastructure, that may exacerbate fire risks or result in other impacts to the environment. The Project does not propose any new roads, nor would new roads be required in order to provide fire protection to the Project Site. Ingress and egress to and from the Project Site is currently provided via Runyon Canyon Road, which is accessed from Mulholland Drive. In addition, emergency access is available to the ridge, via the hiking trail, which has been recently paved. The access plan would remain unchanged with development of

the Project. In addition, the Project Applicant would continue to maintain the approximately 2.88 acres of fuel modification zones as required by the LAFD, and no new fuel breaks would be required. The Mulholland Scenic Parkway Specific Plan requires utility connections, including cable and telephone, to be installed below grade. The Project would also not require the installation of emergency water sources or other utilities. Thus, the Project would not require installation or maintenance of infrastructure, the construction or maintenance of which could exacerbate fire risks or otherwise impact the environment.

Further, automatic fire sprinkler systems are required for the proposed land uses as part of the Project. The Project will also implement the requirements provided by the LAFD included in the Inter-Departmental Correspondence dated April 4, 2018 (included as Appendix I-1 of this Draft EIR and discussed in Section IV.L, Public Services – Fire Protection), which would reduce the potential for catastrophic fire damage or risk to lives.

Overall, the Project would not require the maintenance or installation of infrastructure that would exacerbate fire risks or that would result in impacts to the environment. **As such, Project impacts would be less than significant.**

Threshold (d): Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

As discussed above, past grading on the Project Site consisted of cutting along the eastern and southern portions of the Site to create the hiking trail and cutting on the central portion of the Site to create the level building pad. The Project was designed to be built into the hillside and the home itself sits below the disturbed ridgeline on the western slope of the property. The proposed residence is sited physically within the bluff (partially buried) so that the only face of the residence that would be visible is on the western elevation. Therefore, the construction of the proposed residence would not worsen slopes in terms of steepness, nor would the Project result in changes to the stability of the slope or changes with respect to runoff or drainage. In addition, the nearest structures downslope from the Project Site are residential uses located south of Runyon Canyon Park, near the Park's southern entrance from Fuller Street, which is approximately 3,060 feet (approximately 0.58 miles) south of the Project Site. Further, as discussed throughout this chapter, the Project would not result in an increased risk of wildfire when compared to existing conditions, nor would the Project exacerbate wildfire risks. **Therefore, the Project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.**

4. Cumulative Impacts

Like the Project, each of the five related projects identified in Section III, Environmental Setting, are located in a VHFHSZ. However, each of these related projects are located more than 1,000 feet away from the Project Site, and therefore are not likely to combine with the Project to result in cumulative impacts with respect to wildfires.

Similar to the Project, the related projects are also subject to the requirements of the 2017 Los Angeles Fire Code as well as LAFD brush clearance requirements for projects in Very High Fire Hazard Severity Zones. Each of the related projects also would be required to consult with LAFD and LADWP during the design phase to establish fire-flow requirements for the land uses proposed and to determine the adequacy of existing fire flow infrastructure serving their respective project sites. Any LAFD or LADWP-required upgrades to the water distribution systems serving the cumulative projects would be addressed for each individual project in conjunction with their project approvals. Each of the related projects also would be individually subject to LAFD review and would be required to comply with all applicable LAFD, Department of Building and Safety, and other City fire safety requirements, including hydrant and access improvements, if necessary, to adequately mitigate impacts related to wildfires. **With full compliance with all applicable local and state rules and regulations, as well as implementation of site-specific recommendations for the related projects, cumulative impacts related to wildfires would be less than significant.**

5. Mitigation Measures

Project-level and cumulative impacts related to wildfires would be less than significant. Thus, no mitigation measures would be necessary.

6. Level of Significance After Mitigation

This determination is not applicable, since no significant impacts have been identified and no mitigation measures are recommended.

V. Alternatives

1. Introduction

The purpose of this section is to assess a range of reasonable alternatives to the Project that would feasibly attain most of the basic Project objectives and avoid or substantially lessen any of the potential significant effects of the Project and to evaluate the comparative merits of the alternatives (CEQA Guidelines Section 15126.6). The CEQA Guidelines state that the selection of alternatives should be governed by a “rule of reason.” CEQA also states that, “[t]he EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project.” Generally, significant effects of an alternative shall be discussed, but in less detail than the project, and should provide decision-makers perspective as well as a reasoned choice.

2. Analysis Format

To develop Project alternatives, the City considered the Project objectives and reviewed the significant impacts identified in Section IV of this EIR, considered those significant impacts that could be substantially avoided or reduced through a range of reasonable project alternatives. The potential environmental impacts associated with the selected Alternatives are described below and are compared to the environmental impacts associated with the Project (also refer to Table V-1 at the end of this section).

a. Project Objectives

The objectives of the Project are as follows:

- To build a new, modern single-family residence while preserving the existing historical structure (the Headley/Handley House) on the Project Site.
- To create a sympathetic home design compatible with the existing house.
- To design a new residence that conforms to the topography, climate, and environment, and is reflective of the Project’s location within Runyon Canyon Park.
- To design a new residence that minimizes potential view impacts from within Runyon Canyon and from key viewpoints including Hollywood Bowl outlook.

b. Significant Project Impacts

As evaluated in Section IV, Environmental Impact Analysis, of this Draft EIR, implementation of the Project would not result in any significant and unavoidable impacts.

3. Overview of Alternatives to the Project

The intent of the alternatives analysis is to reduce the significant impacts of the Project. The following alternatives to the Project have been selected for evaluation based on the significant environmental impacts of the Project, the objectives established for the Project, and the feasibility of the alternatives considered.

Alternative A: No Project/No Build Alternative

Alternative B: Reduced Project Alternative

Alternative C: Alternate Placement Alternative

A more detailed discussion of these alternatives and impacts that would occur under the alternatives is included below.

4. Alternatives Considered and Rejected

As set forth in CEQA Guidelines Section 15126.6(c), an EIR should identify any alternatives that were considered for analysis but rejected as infeasible and briefly explain the reasons for their rejection. According to CEQA Guidelines Section 15126.6(c), among the factors that may be used to eliminate an Alternative from detailed consideration is the alternative's failure to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts. In considering ways to substantially reduce or avoid the significant impacts identified for the Project, one alternative was considered but rejected for further review, due to the infeasibility of the alternative. The alternative to the Project that has been considered and rejected as infeasible includes an "Alternate Project Site" Alternative. This alternative considered development of the Project on an alternate site within the Project Site area. However, this alternative was rejected for further analysis, because the Project Applicant does not own or have control over any other developable property in the Project Site area and cannot "reasonably acquire, control or otherwise have access to [an] alternative site" (refer to Section 15126.6[f][1] of the CEQA Guidelines). Further, the Project Applicant currently lives in the existing home on the Project Site. Thus, development of the Project on an alternate site was deemed infeasible.

A second alternative that was considered but ultimately rejected is an alternative that consists of a home located directly on top of the ridgeline on the Project Site.¹ For this alternative, a home of the same size as the Project would be constructed, but each level of the home would be visible and exposed from all directions including Mulholland Drive. Figures V-1 through V-3 provide conceptual views of a home built on top of the ridgeline. With respect to placement on the Project Site, as shown in Figures V-1 through V-3, a home built on top of the ridgeline would be visible and exposed from all directions including Mulholland Drive. In contrast, the Project is designed to be built into the hillside and the home itself sits below the disturbed ridgeline on the western slope of the property, and is completed hidden from Mulholland Drive. Therefore, this alternative would result in additional impacts when compared to the Project with respect to aesthetics, scenic resources, and views based on the visibility of the home.

Based on this alternative's location of top of the ridgeline, the Project would not require any excavation, and would not require the use of retaining walls. Therefore, the construction period for this alternative would likely be shorter than the Project's construction period, although the same construction equipment would be used.

However, it was determined that a home built on top of the ridgeline would result in a potential impact with respect to historic resources. This is because a home built on top of the ridgeline would likely be in conflict with the Secretary of the Interior's Standards relative to compatibility and setting of the existing historical residence on the Project Site (the Headley/Handley House). As shown in Figures V-1 through V-3, a residence on top of the ridgeline would not preserve the setting of the existing historic residence and the new residence would be visible from the Headley/Handley House and the Hollywood Bowl Outlook (as opposed to the Project, where the home is buried within the bluff). This location would also modify the setting of the existing Headley/Handley house significantly. Therefore, based on the potential to result in more severe impacts to scenic vistas, scenic resources, visual character and quality, and the potential historic impact to the Headley/Handley House, an alternative located on top of the ridgeline was rejected as infeasible.

¹ *In 1999, an approximately 8,500-square-foot residence was approved for the Project Site. However, the entitlements for the previously approved home have since expired.*



Figure V-1
Ridge Top, View 1



Figure V-2
Ridge Top, View 2

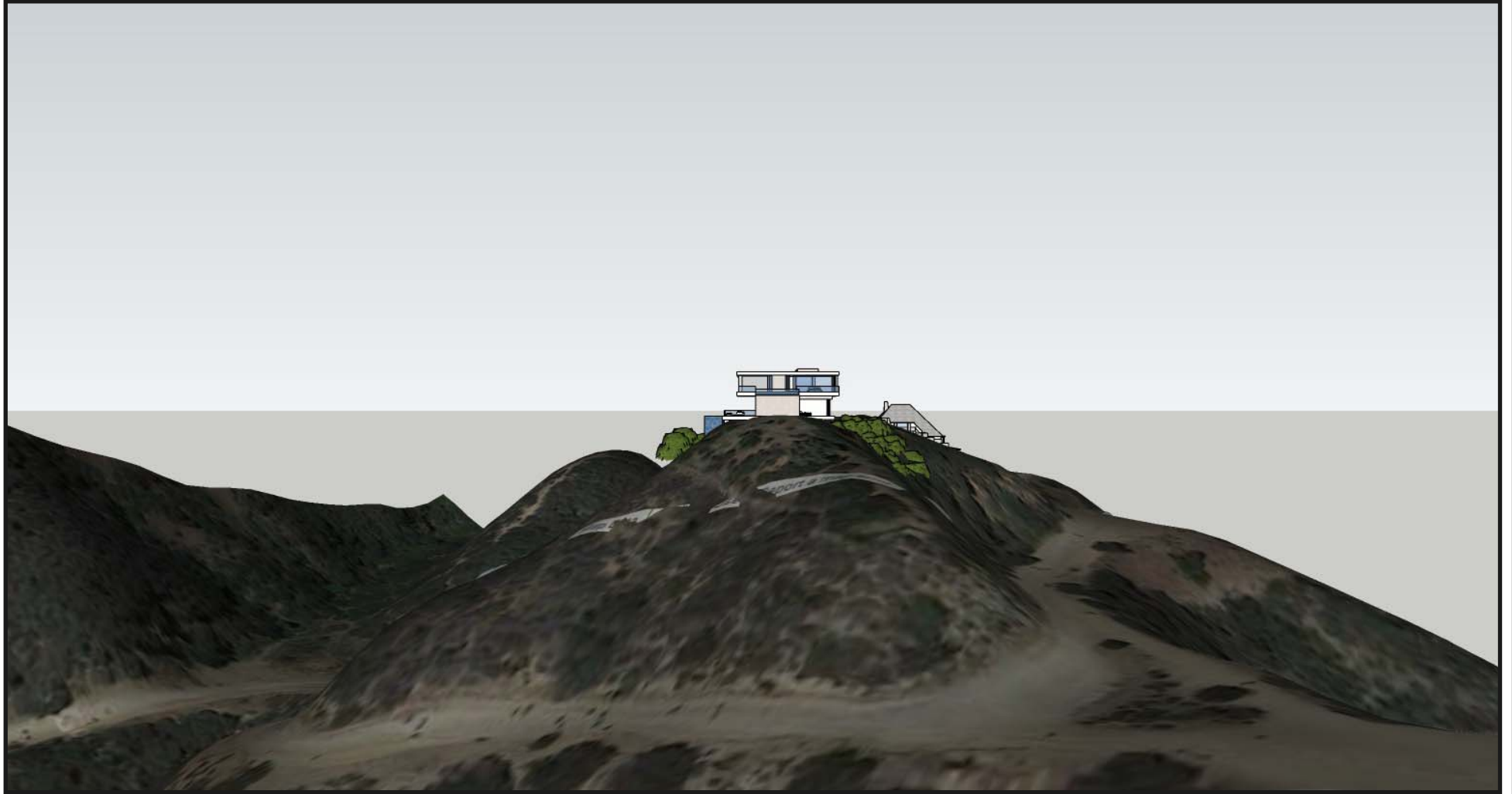


Figure V-3
Ridge Top, View 3

5. Description of the Alternatives

a. Alternative A: No Project/No Build Alternative

CEQA requires the alternatives analysis to include a “no project” alternative, which is the circumstance under which the Project does not proceed. The purpose of analyzing a No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project (CEQA Guidelines Section 15126.6[e][1]). Pursuant to CEQA Guidelines Section 15126.6(e)(2), requirements of the analysis of the “no project” alternative are as follows:

The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans, and consistent with available infrastructure and community services.

At the time the notice of preparation (NOP) was published for the Project, there was no evidence that another development at the Project Site would be forthcoming in the event the Project is not approved. Thus, for the purposes of this EIR, Alternative A: No Project/No Build Alternative assumes that the Project Site would remain in its current condition as described in Section III, Environmental Setting as developed with the Headley/Handley House. Although no new development would occur on the Project Site under Alternative A, this alternative assumes the development of the related projects in the area of the Project Site. No discretionary actions would be required by local, state, or federal agencies for this alternative.

b. Alternative B: Reduced Project Alternative

Alternative B: Reduced Project Alternative assumes development of the Project Site with a smaller house than the Project. Specifically, Alternative B would consist of a home that is reduced in size approximately 30% when compared to the Project, for approximately 5,670 square feet (not including the basement). Alternative B would be located in the same location on the Project Site as the Project, and each level of the home would be proportionately reduced when compared to the Project.

c. Alternative C: Alternate Placement Alternative

Alternative C: Alternate Placement Alternative assumes development of the Project Site with the same size house as the Project, but at a different location on the Project Site. Specifically, Alternative C would place the home down slope from the

Project, 50 feet below the ridgeline, thereby not requiring a Specific Plan Exception for a new single-family home within 50 feet of a prominent ridge, as specified in the Mulholland Scenic Parkway Specific Plan. In order to access a home in this location, a separate partial elevated driveway and partial graded driveway of approximately 300 feet long would be required. In addition, a home in this location would require minimum 10-foot retaining walls below and above the elevated driveway, and would also require a 10 to 20-foot retaining wall above the highest rooftop of the home in order to hold back the ridgeline above the home. Conceptual views of Alternative C are provided in Figures V-4 through V-6.







6. Comparative Environmental Impact Analysis

The analysis contained in this section compares the environmental impacts of the selected Alternatives (Alternatives A through C) with the environmental impacts of the Proposed Project. For each topic analyzed in the Draft EIR, a summary of the Project's impacts with respect to each issue is provided. Then, the impacts of Alternatives A through C are assessed. Finally, a comparison is made between the impacts of each Alternative and the Proposed Project (also refer to Table V-1 at the end of this section for a comparison of impacts between each of the Alternatives and the Proposed Project).

a. Aesthetics

(1) Scenic Vistas and Resources

a. Proposed Project

As discussed in Section IV.A (Aesthetics), the Project has been designed such that the proposed home would be built into the hillside and the home itself sits below the disturbed ridgeline on the western side of the property and is completely hidden from Mulholland Drive. Overall, the Project has been designed in an organic aesthetic and has been designed to meet the requirements of the Mulholland Scenic Parkway Specific Plan (MSPSP) and Hillside Ordinance standards for height, sensitivity to topography, and bulk of structures. As such, the Project's impacts with respect to scenic resources would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, no impacts with regard to aesthetics and scenic resources would occur under Alternative A.

c. Alternative B: Reduced Project Alternative

While Alternative B proposes a smaller home than the Project, Alternative B would be placed in the same location on the Project Site, but with proportionately smaller levels of the home. Therefore, Alternative B would also be built into the hillside and the home would sit below the disturbed ridgeline and would be completely hidden from Mulholland Drive. In addition, like the Project, Alternative B would be designed in an organic aesthetic and would be designed to meet the requirements of the Mulholland Scenic Parkway Specific Plan (MSPSP) and Hillside Ordinance standards for height, sensitivity to topography, and bulk of structures. As such, Alternative B's impacts with respect to scenic resources would be less than significant and similar to the Project, as both the Project and Alternative B would be completely hidden from Mulholland Drive.

d. Alternative C: Alternate Placement Alternative

While Alternative C proposes a home of the same size as the Project, Alternative C would locate the home down slope from the Project, 50 feet below the ridgeline. Alternative C would also be built into the hillside, and as the home would be located downslope from the Project, Alternative C would also be completely hidden from Mulholland Drive. In addition, like the Project, Alternative C would be designed in an organic aesthetic and would be designed to meet the requirements of the Mulholland Scenic Parkway Specific Plan (MSPSP) and Hillside Ordinance standards for height, sensitivity to topography, and bulk of structures. As such, Alternative C's impacts with respect to scenic resources would be less than significant, and similar to the Project, as both the Project and Alternative C would be completely hidden from Mulholland Drive.

(2) Visual Character

a. Proposed Project

As discussed in Section IV.A (Aesthetics), the only face of the residence that would be visible is on the western elevation. Additionally, the view of the western elevation is only available from limited vantage points on the hiking trail looking to the north and east. Therefore, as the Project would develop a use consistent with other surrounding residential uses, and as the Project would be built into the hillside sitting below the disturbed ridgeline and only viewable from limited vantage points, Project impacts with respect to visual character would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, no impacts with regard to visual character would occur under Alternative A.

c. Alternative B: Reduced Project Alternative

Alternative B proposes a smaller home than the Project, but in the same location on the Project Site. Therefore, like the Project, the only face of the residence that would be visible is on the western elevation. Additionally, like the Project, the view of the western elevation would only be available from limited vantage points on the hiking trail looking to the north and east. Therefore, as Alternative B would develop a use consistent with other surrounding residential uses, and as Alternative B would be built into the hillside sitting below the disturbed ridgeline and only viewable from limited vantage points, Alternative B's impacts with respect to visual character would be less than significant, and similar to the Project.

d. Alternative C: Alternate Placement Alternative

While Alternative C proposes a home of the same size as the Project, Alternative C would locate the home down slope from the Project, 50 feet below the ridgeline. This location of the home on the Project Site would push the house further down into the park when compared to the Project, increasing exposure of the home to park users. In addition, as described above, Alternative C would necessitate a newly constructed separate driveway ramp, with additional retaining walls. The driveway ramp and retaining walls would be visible from many vantage points due to the difficulty of landscaping elevated “floating” structures (i.e., the elevated driveway ramp), including from Mulholland Drive. Finally, the view of home would be available from additional vantage points on the hiking trail when compared to the Project. While Alternative C would develop a residential use that is consistent with other surrounding residential uses, and Alternative C would be built into the hillside sitting below the disturbed ridgeline, the impacts of Alternative C with respect to visual character would be considered significant and unavoidable and would be greater than the impacts of the Project, based on the driveway ramp, additional retaining walls, and increased visibility from the hiking trail.

(3) Light and Glare

a. Proposed Project

As discussed in Section IV.A (Aesthetics), the Project has been designed to be built into the hillside with 5- to 10-foot roof overhangs over the windows and patios of the proposed home, and all exterior lighting would be directed inward where possible. Overall, exterior lighting would be minimized and interior lighting would be designed to be compatible with the surrounding area. Therefore, impacts with respect to lighting would be less than significant. Regarding glare, the Project has been designed with low reflective façade materials used on the exterior of the home, which would ensure that the Project does not create glare. As such, Project impacts with respect to glare would also be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur and no new sources of lighting or glare would be developed. As such, no impacts with regard to light and glare would occur under Alternative A.

c. Alternative B: Reduced Project Alternative

Alternative B consists of the construction of a single-family residence that has been reduced in size by 30% when compared to the Project. However, like the Project, it is

assumed that Alternative B would also be designed to be built into the hillside with 5- to 10-foot roof overhangs over the windows and patios of the proposed home, and all exterior lighting would be directed inward where possible. Overall, exterior lighting would be minimized and interior lighting would be designed to be compatible with the surrounding area. Therefore, impacts with respect to lighting would be less than significant, and similar to the Project. Regarding glare, Alternative B would also be designed with low reflective façade materials used on the exterior of the home, which would ensure that Alternative B does not create glare. As such, Alternative B's impacts with respect to glare would also be less than significant, and similar to the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C consists of the construction of a single-family residence that is the same size as the Project, but that would be located in a different portion of the Project Site. However, like the Project, it is assumed that Alternative C would also be designed to be built into the hillside with 5- to 10-foot roof overhangs over the windows and patios of the proposed home, and all exterior lighting would be directed inward where possible. Overall, exterior lighting would be minimized and interior lighting would be designed to be compatible with the surrounding area, but the level of lighting emanating from the Project Site would be greater than the lighting from the Project, based on additional lighting required for Alternative C's elevated driveway. In addition, light emanating from the proposed home would be located further into the Park. Therefore, impacts with respect to lighting would be less than significant, but increased when compared to the Project based on the additional light in the Park. Regarding glare, Alternative C would also be designed with low reflective façade materials used on the exterior of the home, which would ensure that Alternative C does not create glare. As such, Alternative C's impacts with respect to glare would also be less than significant.

b. Air Quality

(1) Consistency with Air Quality Management Plan (AQMP)

a. Proposed Project

As discussed in Section IV.B Air Quality, the Project would not increase the population in the South Coast Air Basin. In addition, the SCAQMD has accounted for growth that is consistent with the local General Plans and SCAG's RTP and identified a strategy and corresponding control measures that accommodate such growth in emissions and offset them in order to help achieve attainment of regional ozone and other clean air standards. Further, the Project would be consistent with the applicable policies contained in the Air Quality Element of the City's General Plan. Finally, as discussed in Section IV.B, Air Quality, the Project's impacts with respect to air quality would be less than significant and therefore the Project would not cause a new air quality violation nor increase the severity of an existing violation. As such, the Project does not conflict with the growth assumptions in the regional air plan and this potential impact is considered less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Alternative A would not add any population growth to the Project Site and would not have the potential to conflict with SCAQMD's AQMP. As such, this alternative would result in no impact.

c. Alternative B: Reduced Project Alternative

Like the Project, Alternative B involves the construction of one single-family residential structure on the Project Site, and would not result in additional population generation as the residents of the existing single-family residence would move into the new, proposed residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, Alternative B would not increase the population in the South Coast Air Basin. Finally, as discussed below regarding construction emissions and operational emissions, Alternative B's impacts with respect to air quality would be less than significant and therefore Alternative B would not cause a new air quality violation nor increase the severity of an existing violation, and impacts related to consistency with SCAQMD's AQMP would be less than significant, and the same as the Project.

d. Alternative C: Alternate Placement Alternative

Like the Project, Alternative C involves the construction of one single-family residential structure on the Project Site (albeit in a different location on the Site), and

would not result in additional population generation as the residents of the existing single-family residence would move into the new, proposed residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, Alternative C would not increase the population in the South Coast Air Basin. Finally, as discussed below regarding construction emissions and operational emissions, Alternative B's impacts with respect to air quality would be less than significant and therefore Alternative B would not cause a new air quality violation nor increase the severity of an existing violation, and impacts related to consistency with SCAQMD's AQMP would be less than significant, and the same as the Project.

(2) Construction Emissions

a. Proposed Project

As discussed in Section IV.B Air Quality, the Project would not generate construction-related emissions in excess of SCAQMD's significance thresholds. Therefore, Project impacts related to construction emissions would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would be constructed. This alternative would not generate any construction-related emissions. As such, this alternative would result in no impact related to construction emissions, which is less than the Project's less than significant impact related to construction emissions.

c. Alternative B: Reduced Project Alternative

Alternative B consists of the construction of a single-family residence that has been reduced in size by 30% when compared to the Project. Therefore, Alternative B would result in a slight reduction in construction emissions when compared to the Project. Like the Project, Alternative B would not generate construction-related emissions in excess of SCAQMD's significance thresholds, and Alternative B's impacts related to construction emissions would be less than significant, and slightly reduced when compared to the Project.

d. Alternative C: Reduced Placement Alternative

Alternative C consists of the construction of a single-family residence of the same size as the Project, in a different location on the Project Site. However, Alternative C would require additional grading and excavation when compared to the Project, based on the location 50 feet below the ridgeline and the need for additional retaining walls.

Therefore, construction emissions for Alternative C would be greater than the construction emissions of the Project, although Alternative C would not be expected to generate construction-related emissions in excess of SCAQMD's significance thresholds. Therefore, Alternative C's impacts related to construction emissions would be less than significant, but increased when compared to the Project.

(3) Operational Emissions

a. Proposed Project

As discussed in Section IV.B Air Quality, operation of the Project would not generate emissions in excess of SCAQMD's significance thresholds. Therefore, Project impacts related to operational emissions would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. This alternative would not generate any new operational emissions. As such, this alternative would result in no impact related to operational emissions, which is less than the Project's less than significant impact related to operational emissions.

c. Alternative B: Reduced Project Alternative

Alternative B consists of the construction of a single-family residence that has been reduced in size by 30% when compared to the Project. Therefore, Alternative B would result in a slight reduction in operational emissions when compared to the Project. Like the Project, Alternative B would not generate emissions in excess of SCAQMD's significance thresholds, and Alternative B's impacts related to operational emissions would be less than significant, and slightly reduced when compared to the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C consists of the construction of a single-family residence of the same size as the Project, in a different location on the Project Site. Therefore, operational emissions for Alternative C would be the same as the Project, and Alternative C would not generate emissions in excess of SCAQMD's significance thresholds. Therefore, Alternative C's impacts related to operational emissions would be less than significant, and the same as the Project.

c. Biological Resources

(1) Special Status Species

a. Proposed Project

As discussed in Section IV.C (Biological Resources), no special status plants were detected during focused surveys, and therefore no impacts to special-status plants would be associated with the Project. In addition, no special-status wildlife species were detected during general wildlife surveys. Two special-status species, coastal western whiptail and coast horned lizard, have low to moderate potential to occur within the fuel modification zone and mixed chaparral habitat within the Project area. Due to the limited area of impact, if either of these species were to occur on the Project Site, it would be in very low numbers, and impacts that could occur from the Project would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to special status species.

c. Alternative B: Reduced Project Alternative

While Alternative B consists of the construction of a single-family residence that has been reduced in size by 30% when compared to the Project, the Project Site (and location on the Project Site) is the same for Alternative B as for the Project. Therefore, Alternative B would result in the same potential as the Project to result in impacts with respect to special status species, and impacts would be less than significant.

d. Alternative C: Alternate Placement Alternative

While the Project Site is the same for Alternative C as for the Project, Alternative C would require additional grading and excavation when compared to the Project, based on the location 50 feet below the ridgeline and the need for additional retaining walls. Therefore, Alternative C would have a greater potential to impact special-status plants or wildlife when compared to the Project, although Alternative C's impact would still be less than significant.

(2) Wildlife Corridor

a. Proposed Project

As discussed in Section IV.C (Biological Resources), due to the Project Site's location surrounded by open space, the Project would not appreciably affect the movement of local species using the Site, and impacts related to wildlife movement would be less than significant. In addition, the study area currently contains groundcover, trees, and shrubs that have the potential to support nesting birds. However, avian surveys were conducted within raptor nesting season and nesting raptors were not observed. To the extent that vegetation removal activities must occur during the nesting season, a biological monitor will be present during the removal activities to ensure that no active nests would be impacted. If any active nests are detected, the area would be flagged with a buffer, and the area would be avoided until the nesting cycle has been completed. Mitigation Measure BIO-MM-1 would ensure that a qualified biologist monitor conducts pre-construction surveys for nesting birds prior to the initiation of clearance/construction work if work occurs during nesting season. With implementation of Mitigation Measure BIO-MM-1, impacts to nesting and migratory birds would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to a wildlife corridor.

c. Alternative B: Reduced Project Alternative

While Alternative B consists of the construction of a single-family residence that has been reduced in size by 30% when compared to the Project, the Project Site (and location on the Project Site) is the same for Alternative B as for the Project. Therefore, the development of Alternative B would also result in the same potential as the Project to impact wildlife movement. In addition, like the Project, Alternative B would also implement Mitigation Measure BIO-MM-1 related to nesting birds. As such, as for the Project, Alternative B's impacts with respect to wildlife movement would be less than significant, and similar to the Project.

d. Alternative C: Alternate Placement Alternative

Because the Project Site is the same under the Project as it is for Alternative C, the development of Alternative C would also result in the same potential as the Project to impact wildlife movement and nesting birds, but a greater potential to affect nesting birds in trees and shrubs that would be impacted by construction activities, based on the construction of the elevated driveway and additional retaining walls for Alternative C.

Alternative C would also implement Mitigation Measure BIO-MM-1 related to nesting birds. As such, as for the Project, Alternative C's impacts with respect to wildlife movement would be less than significant, but increased when compared to the Project.

(3) Local Policies or Ordinances

a. Proposed Project

As discussed in Section IV.C (Biological Resources), there are no native protected tree species on-site. However, there are a total of 96 non-protected significant trees on the Site and 17 of these trees are recommended for removal. These trees are in close proximity of the proposed construction and will not tolerate the encroachment. Thus, the Project would remove the existing non-native trees on the Project Site and would provide replacement trees. In addition, one additional tree, a California walnut tree, which is subject to the protected tree ordinance of the City of Los Angeles, occurs within the Study Area. However, this tree is completely avoided by the Project and associated fuel modification boundary. Nevertheless, the Project would include Project Design Feature BIO-PDF-1, which would ensure that this tree is not impacted by any construction activities. Therefore, impacts with respect to protected trees would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to local policies or ordinances protecting biological resources.

c. Alternative B: Reduced Project Alternative

Though Alternative B proposes a home of reduced size when compared to the Project, Alternative B would result in the removal of the same trees as the Project. In addition, like the Project, Alternative B would include Project Design Feature BIO-PDF-1 regarding the California walnut tree that is outside of the study area. Therefore, Alternative B's impacts with respect to protected trees would be less than significant, and the same as the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C includes development of a residence the same size as the Project, but in a different location on the Project Site, and may also necessitate removal of additional trees for the construction of the elevated driveway. Therefore, Alternative C would likely result in the removal of different trees than the Project. Nevertheless, as discussed above for the Project, the Project Site does not contain any native protected

tree species. In addition, like the Project, Alternative C would include Project Design Feature BIO-PDF-1 regarding the California walnut tree that is outside of the study area. Therefore, Alternative C's impacts with respect to protected trees would be less than significant, and similar to the Project.

d. Cultural Resources

(1) Historical Resources

a. Proposed Project

As discussed in Section IV.D (Cultural Resources), the Project does not propose to demolish, relocate, or physically alter the Headley/Handley House. Therefore, the Project would not have a direct impact on any historical resources. In addition, the Project is consistent with the *Secretary of the Interior's Standards for Rehabilitation*, and is designed in a manner sensitive and sympathetic to the existing historic residence. Therefore, the Project's impact on historical resources would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impacts on historical resources.

c. Alternative B: Reduced Project Alternative

Like the Project, Alternative B would not demolish, relocate, or physically alter the Headley/Handley House. In addition, while Alternative B would be 30% smaller than the Project, Alternative B would be consistent with the *Secretary of the Interior's Standards for Rehabilitation*, and would be designed in a manner sensitive and sympathetic to the existing historic residence. Therefore, Alternative B's impact on historical resources would be the same as the Project and also less than significant.

d. Alternative C: Alternate Placement Alternative

Like the Project, Alternative C would not demolish, relocate, or physically alter the Headley/Handley House. In addition, Alternative C would be consistent with the *Secretary of the Interior's Standards for Rehabilitation*, and would be designed in a manner sensitive and sympathetic to the existing historic residence. Therefore, Alternative C's impact on historical resources would be similar to the effects of the Project and also less than significant.

(2) Archaeological Resources

a. Proposed Project

As discussed in Section IV.D (Cultural Resources), there are no known archaeological resources within the Project Site. In the event of the discovery of previously unknown archeological resources during construction, the Project would comply with the requirements of California Public Resources Code Section 21083.2. Through compliance with the existing regulatory requirements, Project impacts to unknown archaeological resources would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to archaeological resources.

c. Alternative B: Reduced Project Alternative

There are no known archaeological resources within the Project Site. While no archaeological resources are anticipated to be affected by the Alternative B, Alternative B would also comply with existing regulatory requirements, which would ensure that impacts to unknown archaeological resources are less than significant. Therefore, Alternative B's impacts with respect to archaeological resources would be similar to the Project and less than significant.

d. Alternative C: Alternate Placement Alternative

While there are no known archaeological resources within the Project Site, Alternative C would also comply with existing regulatory requirements, which would ensure that impacts to unknown archaeological resources are less than significant, although impacts would be increased when compared to the Project based on the additional grading required to construct the elevated driveway and additional retaining walls.

e. Energy

(1) Wasteful, Inefficient, or Unnecessary Consumption of Energy

a. Proposed Project

As discussed in Section IV.E (Energy), the Project would consume approximately 7,976 kilowatt hours (kWh) of electricity (or 7.98 MWh) per year and approximately 27,496 kBtu of natural gas per year. The Los Angeles Department of Water and Power (LADWP)

current and planned electricity supplies have the capacity to support the Project's electricity consumption. Additionally, the Southern California Gas Company (SCG) undertakes expansion and/or modification of the natural gas infrastructure to serve future growth within its service area as part of the normal process of providing service and would have adequate existing natural gas supplies to accommodate the Project. The Project would not require the acquisition of additional electricity or natural gas supplies beyond those that exist and are anticipated by the LADWP and SCG, respectively. The Project would be responsible for paying connection costs to connect its on-site service meters to existing utility infrastructure. The Project would be subject to Title 24 requirements of the CCR (CalGreen), would also be subject to the regulations included in the City's Green Building Code (LAMC Chapter IX, Article 1), and beyond these regulatory requirements, the Project would incorporate project design features, including a green roof and water-efficient plantings, all of which would improve energy efficiency and reduce impacts on consumption of energy resources. Thus, although the Project would create additional demands on electricity and natural gas supplies and distribution infrastructure, LADWP and SCG (respectively) would be able to provide service to the Project Site, and the Project's demand for electricity and natural gas would not result in a wasteful or inefficient use of energy. Thus, impacts related to energy infrastructure would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Thus, this alternative would not result in any additional energy usage at the Project Site.

c. Alternative B: Reduced Project Alternative

Alternative B proposes a reduced size home when compared to the Project. Therefore, Alternative B would require proportionately less electricity and natural gas than the Project. Because LADWP and SCG could accommodate the Project's demand for electricity and natural gas, the demand for electricity and natural gas associated with Alternative B could also be accommodated, respectively. Alternative B would implement the same project design features and comply equally with the requirements of the Green Building Code. Thus, the demand for electricity and natural gas under Alternative B would not result in a wasteful or inefficient use of energy, similar to the Project. Thus, impacts related to energy infrastructure under Alternative B would be less than significant, and less than the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C includes development of a residence the same size as the Project, but in a different location on the Project Site. Therefore, Alternative C would require the same amount of electricity and natural gas as the Project. Because LADWP and SCG could accommodate the Project's demand for electricity and natural gas, the demand for electricity and natural gas associated with Alternative C could also be accommodated, respectively. Like the Project, Alternative C would include drought tolerant landscaping. However, based on Alternative C's different location on the Project Site, Alternative C would likely not include the green roof. Finally, Alternative C would comply equally with the requirements of the Green Building Code. Thus, the demand for electricity and natural gas under Alternative C would not result in a wasteful or inefficient use of energy, similar to the Project. Overall, impacts related to energy infrastructure under Alternative C would be less than significant, and the same as the Project.

(2) Energy Conservation Plans

a. Proposed Project

As discussed in Section IV.E (Energy), the Project would be subject to Title 24 requirements of the CCR (CalGreen), and would also be subject to the regulations included in the City's Green Building Code (LAMC Chapter IX, Article 1). In addition, the Project would include sustainability features, such as those provided in Project Design Feature GHG-PDF-1. With incorporation of these features, along with compliance with state and local energy efficiency standards, the Project would meet and/or exceed all applicable energy conservation policies and regulations, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Thus, this alternative would not result in any additional energy usage at the Project Site.

c. Alternative B: Reduced Project Alternative

Alternative B proposes a reduced size home when compared to the Project. Therefore, Alternative B would require proportionately less electricity and natural gas than the Project. However, any development of the Project Site (including Alternative B) would be subject to Title 24 requirements of the CCR (CalGreen), and would also be subject to the regulations included in the City's Green Building Code (LAMC Chapter IX, Article 1). In addition, Alternative B would include the same sustainability measures as the Project. With incorporation of these features, along with compliance with state and local energy

efficiency standards, Alternative B would meet and/or exceed all applicable energy conservation policies and regulations, and impacts would be less than significant and the same as the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C includes development of a residence the same size as the Project, but in a different location on the Project Site. Therefore, Alternative C would require the same amount of electricity and natural gas as the Project. However, any development of the Project Site (including Alternative C) would be subject to Title 24 requirements of the CCR (CalGreen), and would also be subject to the regulations included in the City's Green Building Code (LAMC Chapter IX, Article 1). In addition, Alternative C would include the same sustainability measures as the Project. With incorporation of these features, along with compliance with state and local energy efficiency standards, Alternative C would meet and/or exceed all applicable energy conservation policies and regulations, and impacts would be less than significant and the same as the Project.

f. Geology and Soils

(1) Seismic Hazards

a. Proposed Project

As discussed in Section IV.F (Geology and Soils), no known active faults cross or are directed toward the Project Site, nor is the Site located in a currently established Alquist-Priolo (AP) Zone of Required Investigation. Based on a review of the Alquist-Priolo Special Studies Zone for the Hollywood Quadrangle, the closest established fault zones are along the Hollywood Fault and the Newport-Inglewood Fault. Thus, the potential for fault surface rupture at the site is considered low. The Project Site is susceptible to ground motion as a result of potential movement along faults in the region. However, the Project Applicant would be required to design and construct the Project in conformance to the most recently adopted California Building Code (CBC) design parameters. Therefore, Project impacts related to seismic hazards would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Thus, this alternative would result in no impact with respect to seismic hazards.

c. Alternative B: Reduced Project Alternative

Any development on the Project Site would be subject to the same seismic hazards as the Project and would be required to comply with all applicable seismic safety building code standards. Therefore, Alternative B would result in less than significant impacts related to seismic hazards, and impacts would be the same as the Project.

d. Alternative C: Alternate Placement Alternative

Any development on the Project Site would be subject to the same seismic hazards as the Project and would be required to comply with all applicable seismic safety building code standards. Therefore, Alternative C would result in less than significant impacts related to seismic hazards, and impacts would be the same as the Project.

(2) Erosion/Loss of Topsoil

a. Proposed Project

As discussed in Section IV.F (Geology and Soils), during construction of the Project, compliance with existing regulations (including preparation of a SWPPP and compliance with NPDES requirements) would ensure that the Project does not result in any significant impacts related to soil erosion. During operation, a greater portion of the Project Site would be developed with impervious surfaces. The Project's inclusion of a green roof would serve to minimize the amount of roof drainage from the Project, and drainage from the Project Site would continue to flow towards storm drains located further down the mountain after construction of the Project, and the Project would comply with the City's Low Impact Development (LID) Ordinance. Thus, Project impacts related to soil erosion would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to erosion.

c. Alternative B: Reduced Project Alternative

Any development of the Project Site, including development of Alternative B, would be required to prepare a SWPPP and comply with NPDES requirements during construction. In addition, under Alternative B (like the Project), inclusion of a green roof would serve to minimize the amount of roof drainage, and drainage from the Project Site would continue to flow towards storm drains located further down the mountain. Thus, Alternative B's impacts related to soil erosion would be less than significant, and slightly

reduced when compared to the Project based on the reduced amount of grading required for Alternative B.

d. Alternative C: Alternate Placement Alternative

Any development of the Project Site, including development of Alternative C, would be required to prepare a SWPPP and comply with NPDES requirements during construction. In addition, under Alternative C (like the Project), drainage from the Project Site would continue to flow towards storm drains located further down the mountain. Thus, Alternative C's impacts related to soil erosion would be less than significant, but increased when compared to the Project based on the additional grading required for construction of the elevated driveway and additional retaining walls.

(3) Geologic Instability

a. Proposed Project

As discussed in Section IV.F (Geology and Soils), the potential for subsidence to occur at the Project Site is considered remote. In addition, the Project Site is not located within a Liquefaction Zone. Therefore, Project impacts with respect to geologic instability would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Thus, this alternative would result in no impact with respect to geologic instability.

c. Alternative B: Reduced Project Alternative

As stated previously, the potential for liquefaction or subsidence to occur at the Project Site is considered low. Any development of the Project Site would be required to be designed and constructed to meet CBC building standards. Conformance with these standards would ensure that impacts related to any potential geologic instability would be less than significant, similar to the Project.

d. Alternative C: Alternate Placement Alternative

As stated previously, the potential for liquefaction or subsidence to occur at the Project Site is considered low. Any development of the Project Site would be required to be designed and constructed to meet CBC building standards. Conformance with these standards would ensure that impacts related to any potential geologic instability would be less than significant, similar to the Project.

(4) Expansive Soils

a. Proposed Project

As discussed in Section IV.F (Geology and Soils), based on soil borings and testing, the potential for expansive soils to occur at the Project Site is low. Any development of the Project Site would be required to be designed and constructed to meet CBC building standards. Conformance with these standards would ensure that Project impacts related to any potential expansive soils would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Thus, this alternative would result in no impact with respect to expansive soils.

c. Alternative B: Reduced Project Alternative

As stated previously, based on soil borings and testing, the potential for expansive soils to occur at the Project Site is low. Any development of the Project Site would be required to be designed and constructed to meet CBC building standards. Conformance with these standards would ensure that impacts related to any potential expansive soils would be less than significant, similar to the Project.

d. Alternative C: Alternate Placement Alternative

As stated previously, based on soil borings and testing, the potential for expansive soils to occur at the Project Site is low. Any development of the Project Site would be required to be designed and constructed to meet CBC building standards. Conformance with these standards would ensure that impacts related to any potential expansive soils would be less than significant, similar to the Project.

(5) Septic Tanks

a. Proposed Project

As discussed in Section IV.F (Geology and Soils), the Project Site is not serviced by existing sewers and a private subsurface disposal system is proposed as part of the Project. According to the geotechnical report prepared for the Project, seepage pits can

be placed in the upper portion of the soils to avoid percolation into surficial materials.² Thus, it was concluded that the use of a private sewage disposal system on the Project Site would not adversely affect the stability of the Project Site or adjoining properties, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. Thus, this alternative would result in no impact with respect to septic tanks.

c. Alternative B: Reduced Project Alternative

Like the Project, Alternative B would also include a private disposal system, which would be placed in the upper portion of the soils to avoid percolation into surficial materials. Therefore, the use of a private sewer disposal system as part of Alternative B would not adversely affect the stability of the Project Site or adjoining properties, and Alternative B's impacts would be similar to the Project's and less than significant.

d. Alternative C: Alternate Placement Alternative

Like the Project, Alternative C would also include a private disposal system, which would be placed in the upper portion of the soils to avoid percolation into surficial materials. Therefore, the use of a private sewer disposal system as part of Alternative C would not adversely affect the stability of the Project Site or adjoining properties, and Alternative C's impacts would be similar to the Project's and less than significant.

(6) Paleontological Resources

a. Proposed Project

As discussed in Section IV.F (Geology and Soils), there are no known vertebrate fossil localities that lie directly within the Project Site boundaries. In the event of the discovery of paleontological resources during construction, the Project would comply with existing State regarding the treatment of these resources. Through compliance with the existing regulatory requirements, Project impacts to unknown paleontological resources would be less than significant.

² *Geologic and Soils Engineering Exploration Report*, prepared by Irvine Geotechnical, March 11, 2016. Included as Appendix G of this Draft EIR, see page 15.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to paleontological resources.

c. Alternative B: Reduced Project Alternative

There are no known paleontological resources within the Project Site boundaries. While no paleontological resources are anticipated to be affected by the Alternative B, Alternative B would also comply with existing regulatory requirements, which would ensure that impacts to unknown paleontological resources are less than significant. Therefore, Alternative B's impacts with respect to paleontological resources would be similar to the Project and less than significant.

d. Alternative C: Alternate Placement Alternative

This alternative would result in a minor increase in the level of ground disturbance, compared to the Project, for construction of an elevated driveway and additional retaining walls. While there are no known paleontological resources within the Project Site boundaries, Alternative C would also comply with existing regulatory requirements, which would ensure that impacts to unknown paleontological resources are less than significant. However, impacts would be increased when compared to the Project based on the additional ground disturbance required to construct the elevated driveway and additional retaining walls.

g. Greenhouse Gas Emissions

a. Proposed Project

As discussed in Section IV.G (Greenhouse Gas Emissions), the Project would be consistent with applicable local GHG reduction strategies, including the City of Los Angeles Green New Deal, Sustainability Plan 2019 and the LA Green Building Code. As a result, given the Project's consistency with City of Los Angeles GHG emission reduction goals and objectives, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. In the absence of adopted standards and established thresholds of significance, and given this consistency, it is concluded that the Project's impacts are less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur, and no additional GHG emissions would occur at the

Project Site. As such, this alternative would result in no impact with respect to GHG emissions.

c. Alternative B: Reduced Project Alternative

Alternative B consists of the construction of a single-family residence that has been reduced in size by 30% when compared to the Project. Therefore, Alternative B would result in a slight reduction in GHG emissions when compared to the Project. As Alternative B proposes the same use as the Project (single-family residence), Alternative B would also be consistent with applicable local GHG reduction strategies, including the City of Los Angeles Green New Deal, Sustainability Plan 2019 and the LA Green Building Code. Thus, Alternative B's impacts with respect to GHG emissions would be less than significant, and slightly reduced when compared to the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C consists of the construction of a single-family residence that is the same size as the Project. Therefore, Alternative C would result in the same annual volume of GHG emissions as the Project. In addition, as Alternative C proposes the same use as the Project (single-family residence), Alternative C would also be consistent with local GHG reduction strategies, including the City of Los Angeles Green New Deal, Sustainability Plan 2019 and the LA Green Building Code. Thus, Alternative C's impacts with respect to GHG emissions would be less than significant, and similar to the Project.

h. Hazards and Hazardous Materials

(1) Emergency Response/Evacuation Plan

a. Proposed Project

As discussed in Section IV.H (Hazards and Hazardous Materials), the Project would prepare a Construction Traffic Management Plan (CTMP), which would formalize how construction would be carried out. Emergency access is currently available to the Project Site via an existing driveway along North Runyon Canyon Road, which is accessed from Mulholland Drive, and also available to the ridge via the hiking trail, which has been recently paved. Emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, Project impacts with respect to emergency response/evacuation would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to interfere with an

emergency response plan. As such, this alternative would result in no impact with respect to an emergency response plan.

c. Alternative B: Reduced Project Alternative

Similar to the Project, Alternative B would prepare a CTMP. In addition, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, Alternative B's impacts related to emergency response/evacuation would be less than significant, and the same as the Project.

d. Alternative C: Alternate Placement Alternative

Similar to the Project, Alternative C would prepare a CTMP. In addition, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, Alternative C's impacts related to emergency response/evacuation would be less than significant, and the same as the Project.

(2) Wildland Fires

a. Proposed Project

As discussed in Section IV.H (Hazards and Hazardous Materials), the Project Site is located within a Very High Fire Hazard Severity Zone and is also located within a designated Fire Buffer Zone or Mountain Fire District. However, the Project would only nominally increase the need for fire protection services at the Project Site as the Project involves an increase in the developed square footage on the Project Site, but not an increase in residents at the Project Site. In addition, the LAFD currently serves both the existing residence on the Project Site and also the hikers in Runyon Canyon Park. Based on the Project Site's location within a Very High Fire Hazard Severity Zone, the Project Applicant currently follows fuel modification requirements and maintains an approximately 2.88 acres of fuel modification zones as required by the LAFD. Finally, the proposed home would include an automatic fire sprinkler system. Therefore, Project impacts associated with wildland fires would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to increase risks related to wildland fires. As such, this alternative would result in no impact with respect to wildland fires.

c. Alternative B: Reduced Project Alternative

Similar to the Project, Alternative B would only nominally increase the need for fire protection services at the Project Site as Alternative B involves an increase in the developed square footage on the Project Site, but not an increase in residents at the Project Site. In addition, the LAFD currently serves both the existing residence on the Project Site and also the hikers in Runyon Canyon Park. Further, like the Project, Alternative B would include an automatic fire sprinkler system and would continue to follow fuel modification requirements. Therefore, Alternative B's impacts associated with wildland fires would be less than significant, and similar to the Project.

d. Alternative C: Alternate Placement Alternative

Similar to the Project, Alternative C would only nominally increase the need for fire protection services at the Project Site as Alternative C involves an increase in the developed square footage on the Project Site, but not an increase in residents at the Project Site. In addition, the LAFD currently serves both the existing residence on the Project Site and also the hikers in Runyon Canyon Park. Further, like the Project, Alternative C would include an automatic fire sprinkler system and would continue to follow fuel modification requirements. Therefore, Alternative C's impacts associated with wildland fires would be less than significant, and similar to the Project.

i. Hydrology and Water Quality

(1) Groundwater

a. Proposed Project

As discussed in Section IV.I (Hydrology and Water Quality), according to the geotechnical report prepared for the Project, no groundwater was encountered during site exploration. In addition, the Project does not propose any permanent groundwater wells or pumping activities, and all water supplied to the Project Site would be derived from the City's existing water supply and infrastructure. Therefore, the Project would not deplete groundwater supplies or recharge, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to interfere with groundwater conditions at the Project Site. As such, Alternative A would result in no impact with respect to groundwater.

c. Alternative B: Reduced Project Alternative

Because the Project Site is the same under the Project as it is for Alternative B, any development of the Project Site would be subject to the same hydrologic issues identified for the Project. Alternative B would include a similar level of excavation as the Project and therefore, like the Project, impacts related to the rate or direction of flow of groundwater during construction would be less than significant. In addition, like the Project, Alternative B does not propose any permanent groundwater wells or pumping activities, and all water supplied to the Project Site would be derived from the City's existing water supply and infrastructure. Therefore, Alternative B's impact on groundwater recharge would be less than significant, and similar to the Project.

d. Alternative C: Alternate Placement Alternative

Because the Project Site is the same under the Project as it is for Alternative C, any development of the Project Site would be subject to the same hydrologic issues identified for the Project. Alternative C would include a similar level of excavation as the Project and therefore, like the Project, impacts related to the rate or direction of flow of groundwater during construction would be less than significant. In addition, like the Project, Alternative C does not propose any permanent groundwater wells or pumping activities, and all water supplied to the Project Site would be derived from the City's existing water supply and infrastructure. Therefore, Alternative C's impact on groundwater recharge would be less than significant, and similar to the Project.

(2) Erosion

a. Proposed Project

As discussed in Section IV.I (Hydrology and Water Quality), while the Project Site is located within Runyon Canyon Park along the western side of a previously modified prominent ridge on the Project Site, no natural watercourses, including streams and rivers, exist on or in the vicinity of the Project Site. Drainage from the Project Site currently flows in a southern direction down the Santa Monica Mountains and towards storm drains located further down the mountain and will continue to do so after construction of the Project at the development site. The Project would also comply with LAMC Chapter IX, Division 70, which addresses erosion control during grading, excavation, and fill activities, as well as the SUSMP, which addresses erosion control through peak-flow reduction and infiltration features. Thus, the Project would not substantially alter the existing drainage pattern on or surrounding the Project Site. . Therefore, impacts related to erosion would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to result in erosion. As such, Alternative A would result in no impact with respect to erosion.

c. Alternative B: Reduced Project Alternative

Because the Project Site is the same under the Project as it is for Alternative B, any development of the Project Site would be located on the same site and would therefore be subject to the same hydrologic conditions identified for the Project. Like the Project, Alternative B would also comply with LAMC Chapter IX, Division 70, which addresses erosion control during grading, excavation, and fill activities, as well as the SUSMP, which addresses erosion control through peak-flow reduction and infiltration features. Thus, Alternative B would not substantially alter the existing drainage pattern of the site or the surrounding area and impacts related to erosion would be less than significant. However, impacts would be slightly reduced when compared to the Project, based on the reduced amount of grading for Alternative B.

d. Alternative C: Alternate Placement Alternative

Because the Project Site is the same under the Project as it is for Alternative C, any development of the Project Site would be located on the same site and would therefore be subject to the same hydrologic conditions identified for the Project. Like the Project, Alternative C would also comply with LAMC Chapter IX, Division 70, which addresses erosion control during grading, excavation, and fill activities, as well as the SUSMP, which addresses erosion control through peak-flow reduction and infiltration features. Thus, Alternative C would not substantially alter the existing drainage pattern of the site or surrounding area and impacts related to erosion would be less than significant. However, impacts would be increased when compared to the Project, based on the increased amount of ground disturbance in order to construct the elevated driveway and additional retaining walls.

j. Land Use and Planning

a. Proposed Project

As discussed in Section IV.J (Land Use and Planning), the Project would be substantially consistent with all applicable land use policies, plans, and regulations associated with development of the Project Site, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to conflict with applicable plans, policies, and regulations associated with development of the Project Site. As such, this alternative would result in no impact with respect to land use consistency.

c. Alternative B: Reduced Project Alternative

Alternative B includes the same use as the Project (single-family residence), but with a reduced amount of square footage. However, Alternative B would require the same discretionary approvals as the Project. Thus, like the Project, Alternative B would also be substantially consistent with all applicable land use policies, plans, and regulations associated with development of the Project Site, and impacts would be less than significant.

d. Alternative C: Alternate Placement Alternative

Alternative C includes a single-family residence of the same size as the Project, but in a different location on the Project Site. Based on Alternative C's location 50 feet below the ridgeline, Alternative C would not require a Specific Plan Exception for a new single-family home located within 50 feet of a prominent ridge as specified in the Mulholland Scenic Parkway Specific Plan. However, Alternative C would require the same remaining discretionary approvals as the Project. Thus, like the Project, Alternative C would also be substantially consistent with all applicable land use policies, plans, and regulations associated with development of the Project Site, and impacts would be less than significant.

k. Noise

(1) Construction Noise

a. Proposed Project

As discussed in Section IV.K (Noise), LAMC Section 112.05 regulates the maximum noise levels of powered construction equipment operating in or within 500 feet from residential zones. This standard would apply to the Project, which is located within 500 feet of similarly zoned parcels (i.e., "Residential Estate"). As such, compliance with the City's regulations regarding construction noise would call for the inclusion of best practice measures on the construction site, including equipping construction equipment with exhaust mufflers and/or damping systems that could reduce their noise levels by 3 to 10 dBA. With regulatory compliance with LAMC Section 112.05, the Project would not require mitigation measures during the construction phase, and the Project's on-site

construction noise levels following compliance with Section 112.05 would meet the 75 dBA limit at 50 feet of distance. As a result, the Project's construction noise impact would be considered less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur, and no construction noise would be generated. As such, this alternative would result in no noise impacts.

c. Alternative B: Reduced Project Alternative

While Alternative B includes a house of reduced size when compared to the Project, this alternative would require use of the same mix of construction equipment identified for the Project and would therefore result in the same construction noise levels as those identified for the Project. Like the Project, Alternative B would comply with LAMC Section 112.05. Therefore, Alternative B's on-site construction noise impact would be similar to the Project's and also less than significant.

d. Alternative C: Alternate Placement Alternative

Alternative C includes a house of the same size as the Project, but in a different location on the Project Site. Therefore, construction of Alternative C would require use of the same mix of construction equipment identified for the Project and would therefore result in the same construction noise levels as those identified for the Project. Like the Project, Alternative C would comply with LAMC Section 112.05. Therefore, Alternative C's on-site construction noise impact would be similar to the Project's and also less than significant.

(2) Operational Noise

a. Proposed Project

As discussed in Section IV.K (Noise), during operation, the Project would produce noise from both on- and off-site sources associated with use of heating, ventilation, and air conditioning (HVAC) and other mechanical equipment; residential noise, such as conversations, consumer electronics, dogs barking; auto-related noises, such as starting of car engines and doors closing; and traffic noise. All on-site noises, including HVAC and mechanical equipment use, would be subject to the requirements of the City's Noise Ordinance to ensure compliance with the City's noise standards. Additionally, the Project would not generate new trips as the occupants who currently live in the house on the Project Site would move into the new single-family residence, with the existing home reclassified as Accessory Living Quarters. Therefore, the Project would not result in an

increase in noise as a result of traffic. For these reasons, Project impacts related to operational noise would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur, and no new operational noise would be generated. As such, this alternative would result in no impact with respect to operational noise.

c. Alternative B: Reduced Project Alternative

The types of on- and off-site noise sources identified for the Project would also exist at the Project Site under Alternative B, as Alternative B also proposes a single-family residence, but of reduced size when compared to the Project. Similar to the Project, all on-site noises, including HVAC and mechanical equipment use, would be subject to the requirements of the City's Noise Ordinance to ensure compliance with the City's noise standards. Thus, impacts related to operational noise under Alternative B would be similar to the Project's and less than significant.

d. Alternative C: Alternate Placement Alternative

The types of on- and off-site noise sources identified for the Project would also exist at the Project Site under Alternative C, as Alternative C also proposes a single-family residence, but of reduced size when compared to the Project. Similar to the Project, all on-site noises, including HVAC and mechanical equipment use, would be subject to the requirements of the City's Noise Ordinance to ensure compliance with the City's noise standards. Thus, impacts related to operational noise under Alternative C would be similar to the Project's and less than significant.

(3) Groundborne Vibration

a. Proposed Project

As discussed in Section IV.K (Noise), construction of the Project would require large steel-tracked earthmoving equipment such as bulldozers and graders. However, based on the distance to the nearest residential structures, groundborne vibrations generated by the Project's on-site construction activities would be nominal and far below any thresholds for building damage or human annoyance. With respect to off-site construction vibration, the potential for annoyance from temporary, intermittent haul truck travel would be minimal, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no construction of new land uses would occur. As such, this alternative would avoid the significant impact related to human annoyance and would result in no impact related to construction groundborne vibration (building damage and human annoyance).

c. Alternative B: Reduced Project Alternative

While Alternative B includes a house of reduced size when compared to the Project, this alternative would require use of the same mix of construction equipment identified for the Project, which would include large steel-tracked earthmoving equipment such as bulldozers and graders. However, as for the Project, based on the distance to the nearest residential structures, groundborne vibrations generated by Alternative B's on-site construction activities would be nominal and far below any thresholds for building damage or human annoyance. With respect to off-site construction vibration, the potential for annoyance from temporary, intermittent haul truck travel would be minimal, and impacts would be less than significant, and similar to the Project.

d. Alternative C: Alternate Placement Alternative

Alternative C includes a house of the same size as the Project, but in a different location on the Project Site. Therefore, this alternative would require use of the same mix of construction equipment identified for the Project, which would include large steel-tracked earthmoving equipment such as bulldozers and graders. However, as for the Project, based on the distance to the nearest residential structures, groundborne vibrations generated by Alternative C's on-site construction activities would be nominal and far below any thresholds for building damage or human annoyance. With respect to off-site construction vibration, the potential for annoyance from temporary, intermittent haul truck travel would be minimal, and impacts would be less than significant, and similar to the Project.

I. Public Services

(1) Fire Protection Services

a. Proposed Project

As discussed in Section IV.L (Public Services – Fire Protection Services), the LAFD is equipped and prepared to deal with construction-related traffic and fires should they occur. Due to the limited duration of construction activities and compliance with applicable codes, Project construction would not be expected to adversely impact firefighting and emergency services to the extent that there would be a need for new or

expanded fire facilities in order to maintain acceptable service ratios, or other performance objectives of the LAFD. Therefore, impacts on fire protection services associated with construction of the Project would be less than significant. Additionally, the Project would increase the amount of developed square footage on the Project Site, but would not involve an increase in residents at the Project Site. As the LAFD currently serves the existing residence on the Project Site, and also currently serves the needs of hikers in Runyon Canyon Park, the construction of a new home on the Project Site would only nominally increase the need for fire protection services at the Project Site. The Project would be required to comply with City Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards, thereby ensuring that the Project would not create any undue fire hazard, and the Project would continue to comply with fuel modification requirements. Further, an automatic fire sprinkler system would be included in the proposed residence. The Project would not require the need for new or altered fire station facilities. Therefore, Project impacts related to fire protection services would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new land uses would be developed, and there would be no increase in the need for fire protection services at the Project Site. As such, this alternative would result in no impact with respect to fire protection services.

c. Alternative B: Reduced Project Alternative

While Alternative B proposes a reduced size home when compared to the Project, the construction phase associated with Alternative B would be similar to that of the Project. As such, similar to the Project, impacts on fire protection services associated with construction of Alternative B would be less than significant. Additionally, any and all development of the Project Site (including development under Alternative B) would be required to comply with City Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards, thereby ensuring that new development would not create any undue fire hazard. Also, LAFD would require Alternative B to incorporate an automatic sprinkler system into the proposed residence to assist with fire suppression, in the event of a fire, and Alternative B would also comply with fuel modification requirements. Similar to the Project, Alternative B would not require the need for new or altered fire station facilities, and impacts would be less than significant, and the same as the Project.

d. Alternative C: Alternate Placement Alternative

The construction phase associated with Alternative C would be the same as the Project. As such, similar to the Project, impacts on fire protection services associated with construction of Alternative C would be less than significant. Additionally, any and all development of the Project Site (including development under Alternative C) would be required to comply with City Fire Code, California Fire Code, City of Los Angeles Building Code, and National Fire Protection Association standards, thereby ensuring that new development would not create any undue fire hazard. Also, LAFD would require Alternative C to incorporate an automatic sprinkler system into the proposed residence to assist with fire suppression, in the event of a fire, and Alternative C would also comply with fuel modification requirements. Similar to the Project, Alternative C would not require the need for new or altered fire station facilities, and impacts would be less than significant, and the same as the Project.

m. Transportation

(1) Performance of the Circulation System

a. Proposed Project

As discussed in Section IV.M (Transportation/Traffic), the Project would implement a CTMP, which would ensure that no peak hour construction traffic impacts are expected during Project construction. During operation, the Project is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the Project would result in a less than significant impact with respect to trip generation during Project operation.

Further, as also discussed in Section IV.M (Transportation/Traffic), the Project would not result in any additional transit trips, or in any additional residents who would use bicycle or pedestrian facilities. In addition, development of the Project would not result in any change to the ability of pedestrians and hikers to access Runyon Canyon Road and the other hiking trails throughout the park, as development would be confined to the Project Site. Therefore, the Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new land uses would be developed, and this alternative would not generate any new

traffic trips. Alternative A would also not result in any change with respect to transit, bicycle, or pedestrian facilities. As such, this alternative would result in no impact.

c. Alternative B: Reduced Project Alternative

Like the Project, Alternative B would implement a CTMP, which would ensure that no peak hour construction traffic impacts are expected during Project construction. During operation, Alternative B is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, Alternative B would result in the same less than significant impact with respect to trip generation during operation.

Additionally, Alternative B would not result in any additional transit trips, or in any additional residents who would use bicycle or pedestrian facilities. In addition, development of Alternative B would not result in any change to the ability of pedestrians and hikers to access Runyon Canyon Road and the other hiking trails throughout the park, as development would be confined to the Project Site. Therefore, Alternative B would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and impacts would be less than significant.

d. Alternative C: Alternate Placement Alternative

Like the Project, Alternative C would implement a CTMP, which would ensure that no peak hour construction traffic impacts are expected during Project construction. During operation, Alternative C is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move in to the new (proposed) single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, Alternative C would result in the same less than significant impact with respect to trip generation during operation.

Additionally, Alternative C would not result in any additional transit trips, or in any additional residents who would use bicycle or pedestrian facilities. In addition, development of Alternative C would not result in any change to the ability of pedestrians and hikers to access Runyon Canyon Road and the other hiking trails throughout the park, as development would be confined to the Project Site. Therefore, Alternative C would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and impacts would be less than significant.

(2) Emergency Access

a. Proposed Project

As discussed in Section IV.M (Transportation/Traffic), with implementation of a CTMP, Project impacts with respect to emergency access during construction would be less than significant. During operation, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, impacts related to emergency response/evacuation during Project operation would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no change to emergency access would occur. As such, this alternative would result in no impact with respect to emergency access.

c. Alternative B: Reduced Project Alternative

Like the Project, Alternative B would implement a CTMP, which would ensure that impacts with respect to emergency access during construction are less than significant. During operation, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, Alternative B's impacts related to emergency response/evacuation during operation would be similar to the Project and also less than significant.

d. Alternative C: Alternate Placement Alternative

Like the Project, Alternative C would implement a CTMP, which would ensure that impacts with respect to emergency access during construction are less than significant. During operation, emergency access to the Project Site and surrounding uses would be maintained at all times, as it is under current conditions. Therefore, Alternative C's impacts related to emergency response/evacuation during operation would be similar to the Project and also less than significant.

n. Tribal Cultural Resources

a. Proposed Project

As discussed in Section IV.N (Tribal Cultural Resources), there are no known tribal cultural resources within the Project Site, and the sensitivity of the Project Site for tribal cultural resources is low. While no tribal cultural resources are anticipated to be affected by the Project, the City has established a standard condition of approval to address inadvertent discovery of tribal cultural resources. A copy of this condition of approval is

included in Appendix F-6 of this Draft EIR. Should tribal cultural resources be inadvertently encountered, this condition of approval provides for temporarily halting of construction activities near the encounter and the Project's certified construction monitor notifying the City and Native American tribes that have informed the City that they are traditionally and culturally affiliated with the geographic area of the proposed project. If the City determines that the object or artifact appears to be a tribal cultural resource, the City would provide any affected tribe a reasonable period of time to conduct a site visit and make recommendations regarding the monitoring of future ground disturbance activities, as well as the treatment and disposition of any discovered tribal cultural resources. Therefore, impacts to tribal cultural resources would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur. As such, this alternative would result in no impact with respect to tribal cultural resources.

c. Alternative B: Reduced Project Alternative

There are no known tribal cultural resources within the Project Site. While no tribal cultural resources are anticipated to be affected by Alternative B, the City has established a standard condition of approval to address inadvertent discovery of tribal cultural resources. Therefore, Alternative B's impacts to tribal cultural resources would be similar to the Project and less than significant.

d. Alternative C: Alternate Placement Alternative

There are no known tribal cultural resources within the Project Site. While no tribal cultural resources are anticipated to be affected by Alternative C, the City has established a standard condition of approval to address inadvertent discovery of tribal cultural resources. Therefore, Alternative C's impacts to tribal cultural resources would be similar to the Project and less than significant.

o. Wildfire

(1) Emergency Response/Evacuation Plan

a. Proposed Project

As discussed in Section IV.O (Wildfire), the Project would prepare a Construction Traffic Management Plan (CTMP), which would formalize how construction would be carried out and identify specific actions that would be required to reduce effects on the surrounding community, including ensuring pedestrian and bicycle safety, as well as

ensuring that, to the extent feasible, Project construction traffic occurs outside of peak traffic hours and that construction activities are scheduled to reduce the effect on traffic flow on surrounding streets (such as Mulholland Drive, which is identified as a disaster route in the General Plan Safety Element). Therefore, construction of the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

During operation, the Project is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move into the new (proposed) single-family residence. Therefore, once constructed, the Project would not result in any changes with respect to traffic on Mulholland Drive (the closest disaster route) when compared to existing conditions. As such, during operation, the Project would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to interfere with an emergency response plan. As such, this alternative would result in no impact with respect to an emergency response plan.

c. Alternative B: Reduced Project Alternative

Similar to the Project, Alternative B would prepare a CTMP, which would ensure that construction of Alternative B would not substantially impair an adopted emergency response plan or emergency evacuation plan (particularly on Mulholland Drive, which is the closest identified disaster route identified in the General Plan Safety Element), and impacts would be less than significant, and the same as the Project.

During operation, Alternative B is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move into the new (proposed) single-family residence. Therefore, once constructed, Alternative B would not result in any changes with respect to traffic on Mulholland Drive (the closest disaster route) when compared to existing conditions. As such, during operation, Alternative B would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant, and the same as the Project.

d. Alternative C: Alternate Placement Alternative

Similar to the Project, Alternative C would prepare a CTMP, which would ensure that construction of Alternative C would not substantially impair an adopted emergency response plan or emergency evacuation plan (particularly on Mulholland Drive, which is the closest identified disaster route identified in the General Plan Safety Element), and impacts would be less than significant, and the same as the Project.

During operation, Alternative C is estimated to generate a negligible amount of daily and peak hour trips as there is currently a single-family residence on the Project Site, and the occupants of the existing residence would move into the new (proposed) single-family residence. Therefore, once constructed, Alternative C would not result in any changes with respect to traffic on Mulholland Drive (the closest disaster route) when compared to existing conditions. As such, during operation, Alternative C would not substantially impair an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant, and the same as the Project.

(2) Exacerbate Wildfire Risks

a. Proposed Project

As discussed in Section IV.O (Wildfire), the Project Site is located within a Very High Fire Hazard Severity Zone and is also located within a designated Fire Buffer Zone or Mountain Fire District. The Project's design, proposed fire hydrant, existing and future fuel modification activities, and compliance with existing regulations regarding development in a VHFHSZ would reduce the flammability of the Project and also facilitate quick containment in the event of a structure fire, so that it would not spread quickly off the Project Site and into the surrounding brush area. Therefore, development of the Project would not exacerbate wildfire risks, and impacts would be less than significant.

b. Alternative A: No Project/No Build Alternative

Alternative A includes continuation of the existing conditions at the Project Site; no new development would occur that would have the potential to exacerbate wildfire risks. As such, this alternative would result in no impact with respect to wildfires.

c. Alternative B: Reduced Project Alternative

Similar to the Project, the flammability of Alternative B would be reduced through design of the proposed residence, inclusion of a new fire hydrant, continuation of fuel modification activities, and compliance with existing regulations regarding development in a VHFHSZ. These features would also facilitate quick containment in the event of a structure fire, so that it would not spread quickly off the Project Site and into the

surrounding brush area. Therefore, development of Alternative B would not exacerbate wildfire risks, and impacts would be less than significant, and the same as the Project.

d. Alternative C: Alternate Placement Alternative

Similar to the Project, the flammability of Alternative C would be reduced through design of the proposed residence, inclusion of a new fire hydrant, continuation of fuel modification activities, and compliance with existing regulations regarding development in a VHFHSZ. These features would also facilitate quick containment in the event of a structure fire, so that it would not spread quickly off the Project Site and into the surrounding brush area. Therefore, development of Alternative C would not exacerbate wildfire risks, and impacts would be less than significant, and the same as the Project.

7. Relationship of the Alternatives to the Project Objectives

a. Alternative A: No Project/No Build Alternative

Alternative A would not meet any of the Project objectives, as it does not create additional development on the Project Site.

b. Alternative B: Reduced Project Alternative

As Alternative B would also develop a single-family residence on the Project Site, Alternative B would meet all of the Project objectives, although to a slightly lesser degree based on the reduced size of Alternative B compared to the Project.

c. Alternative C: Alternate Placement Alternative

Alternative C would meet all of the Project objectives, although to a lesser degree than the Project due to the different location on the Project Site. Based on Alternative C's location on the Project Site, Alternative C would not conform to the topography of the Site to the same extent as the Project, nor would Alternative C minimize potential view impacts to the same extent as the Project. In fact, Alternative C would result in additional view and aesthetic impacts when compared to the Project, as Alternative C would be viewable from additional vantage points on the hiking trail, and Alternative C's elevated driveway and retaining walls would be visible. Finally, Alternative C would require additional grading and excavation when compared to the Project.

8. Environmentally Superior Alternative

Alternative A (the No Project Alternative) would be environmentally superior to the Project. However, Alternative A would not achieve any of the Project objectives.

In accordance with *CEQA Guidelines* Section 15126.6(e), if the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Alternative B would not result in any increased impacts, and would therefore be considered the “Environmentally Superior Alternative.” However, as demonstrated by the analysis provided above and in Table V-1 provided below, the majority of Alternative B’s impacts would be the same as the impacts of the Project. This is because both the Project and Alternative B would include the construction of a single-family residence in the same location on the Project Site. Impacts related to air quality, greenhouse gas emissions, energy demand, and erosion would be slightly reduced for Alternative B compared to the Project based on the reduced size of the proposed home, although these impacts would be less than significant for both the Project and Alternative B. All other impacts would be the same for Alternative B as for the Project. Finally, as discussed above, Alternative C would result in additional view and aesthetic impacts when compared to the Project, as Alternative C would be viewable from additional vantage points on the hiking trail, and Alternative C’s elevated driveway and retaining walls would be visible. Finally, Alternative C would require additional grading and excavation when compared to the Project.

**Table V-1
Comparison of Impacts under the Project to Impacts under the Alternatives**

DEIR Sec.	Environmental Issues Analyzed in the Draft EIR	Project Impacts	Impacts Under the Alternatives		
			Alternative A: No Project	Alternative B: Reduced Project	Alternative C: Alternate Placement
IV.A	Aesthetics				
	Scenic Resources	LTS	NC (-)	LTS (=)	LTS (=)
	Visual Character	LTS	NC (-)	LTS (=)	SU (+)
	Light and Glare	LTS	NC (-)	LTS (=)	LTS (+)
IV.B	Air Quality				
	Consistency with AQMP	LTS	NC (-)	LTS (=)	LTS (=)
	Construction Emissions	LTS	NC (-)	LTS (-)	LTS (+)
	Operational Emissions ₁	LTS	NC (-)	LTS (-)	LTS (=)
IV.C	Biological Resources				
	Special Status Species	LTS	NC (-)	LTS (=)	LTS (=)
	Wildlife Corridor	LTS w/M	NC (-)	LTS w/M (=)	LTS w/M (+)
	Local Policies or Ordinances	LTS w/M	NC (-)	LTS w/M (=)	LTS w/M (=)
IV.D	Cultural Resources				
	Historical Resources	LTS	NC (-)	LTS (=)	LTS (=)
	Archaeological Resources	LTS	NC (-)	LTS (=)	LTS (+)
IV.E	Energy				
	Wasteful, Inefficient, Unnecessary Use	LTS	NC (-)	LTS (-)	LTS (=)
	Energy Conservation Plans	LTS	NC (-)	LTS (=)	LTS (=)
IV.F	Geology and Soils				
	Seismic Hazards	LTS	NC (-)	LTS (=)	LTS (=)
	Erosion/Loss of Topsoil	LTS	NC (-)	LTS (-)	LTS (+)
	Geologic Instability	LTS	NC (-)	LTS (=)	LTS (=)
	Expansive Soils	LTS	NC (-)	LTS (=)	LTS (=)
	Septic Tanks	LTS	NC (-)	LTS (=)	LTS (=)
	Paleontological Resources	LTS	NC (-)	LTS (=)	LTS (+)
IV.G	Greenhouse Gas Emissions	LTS	NC (-)	LTS (-)	LTS (=)

**Table V-1
Comparison of Impacts under the Project to Impacts under the Alternatives**

DEIR Sec.	Environmental Issues Analyzed in the Draft EIR	Project Impacts	Impacts Under the Alternatives		
			Alternative A: No Project	Alternative B: Reduced Project	Alternative C: Alternate Placement
IV.H	Hazards and Hazardous Materials				
	Emergency Response Plan	LTS	NC (-)	LTS (=)	LTS (=)
	Wildland Fires	LTS	NC (-)	LTS (=)	LTS (=)
IV.I	Hydrology and Water Quality				
	Groundwater	LTS	NC (-)	LTS (=)	LTS (=)
	Erosion	LTS	NC (-)	LTS (-)	LTS (+)
IV.J	Land Use and Planning				
	Plan/Policy Consistency	LTS	NC (-)	LTS (=)	LTS (=)
IV.K	Noise				
	Construction Noise	LTS	NC (-)	LTS (=)	LTS (=)
	Operational Noise	LTS	NC (-)	LTS (=)	LTS (=)
	Groundborne Vibration	LTS	NC (-)	LTS (=)	LTS (=)
IV.L	Public Services				
	Fire Protection Services	LTS	NC (-)	LTS (=)	LTS (=)
IV.M	Transportation				
	Performance of the Circulation System	LTS	NC (-)	LTS (=)	LTS (=)
	Emergency Access	LTS	NC (-)	LTS (=)	LTS (=)
IV.N	Tribal Cultural Resources	LTS	NC (-)	LTS (=)	LTS (=)
IV.O	Wildfire				
	Emergency Response Plan	LTS	NC (-)	LTS (=)	LTS (=)
	Exacerbate Wildfire Risks	LTS	NC (-)	LTS (=)	LTS (=)

**Table V-1
Comparison of Impacts under the Project to Impacts under the Alternatives**

DEIR Sec.	Environmental Issues Analyzed in the Draft EIR	Project Impacts	Impacts Under the Alternatives		
			Alternative A: No Project	Alternative B: Reduced Project	Alternative C: Alternate Placement
	<i>LTS = less than significant impact</i> <i>LTS w/M = less than significant impact with mitigation incorporated</i> <i>SU = significant unavoidable impact</i> <i>(-) denotes that impacts are reduced when compared to the Project.</i> <i>(=) denotes that impacts are the same or similar when compared to the Project.</i> <i>(+) denotes that impacts are increased when compared toe Project.</i>			<i>NC = no change over the existing condition</i> <i>NI = no impact</i>	

VI. Other CEQA Considerations

1. Introduction

This section includes information from the following items:

- A Initial Study, City of Los Angeles, April 2018.
- D Air Quality and Greenhouse Gas Emissions Technical Modeling, DKA Planning, July 2018.

2. Significant Unavoidable Impacts

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts which cannot be avoided. Specifically, Section 15126.2(b) states:

Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.

As evaluated in Section IV, Environmental Impact Analysis, of this Draft EIR, implementation of the Project would not result in any significant and unavoidable impacts.

3. Significant Irreversible Environmental Changes

Section 15126.2(c) of the CEQA Guidelines indicates that an EIR should evaluate significant irreversible environmental changes that would be caused by implementation of a proposed project. As stated in CEQA Guidelines Section 15126.2(c), “[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.”

The Project would necessarily consume a limited amount of slowly renewable and non-renewable resources that could result in irreversible environmental changes. This consumption would occur during construction of the Project and would continue

throughout its operational lifetime. The development of the Project would require a commitment of resources that would include: (1) building materials and associated solid waste disposal effects on landfills; (2) water; and (3) energy resources (e.g., fossil fuels) for electricity, natural gas, and transportation. As demonstrated below, the Project would not consume a large commitment of natural resources or result in significant irreversible environmental changes.

Construction of the Project would require consumption of resources that do not replenish themselves or which may renew so slowly as to be considered non-renewable. These resources would include certain types of lumber and other forest products, aggregate materials used in concrete and asphalt (e.g., sand, gravel and stone), metals (e.g., steel, copper and lead), and petrochemical construction materials (e.g., plastics).

As discussed later in this section (under “Effects Found Not to be Significant”), during construction of the Project, a minimum of 50 percent of construction and demolition debris would be diverted from landfills. Further, the additional increase in solid waste resulting from the completed Project would be minimal given that the Project is a single-family residence. In addition, the Project will participate in City programs that adhere to State and local solid waste policies and objectives that further goals to divert waste from landfill disposal.

Based on the above, Project construction and operation would require the irreversible commitment of limited, slowly renewable, and non-renewable resources, which would limit the availability of these resources and the Project Site for future generations or for other uses. However, the consumption of such resources would not be considered substantial given the small scale of the Project. In addition, none of the materials required to construct the Project would be rare or in highly limited supply. Further, such resources would not be used in a wasteful manner. Therefore, although irreversible environmental changes would result from the Project, such changes are concluded to be less than significant, and the limited use of nonrenewable resources that would be required by Project construction and operation is justified.

Further, the Project’s potential use of hazardous materials is addressed in the Initial Study for the Project, and also later in this section (under “Effects Found Not to be Significant”). As evaluated therein, other than the typical cleaning solvents used for janitorial purposes and chemicals used for pool maintenance, no hazardous materials would be used, transported, or disposed of in conjunction with the routine day-to-day operations of the Project. Construction could involve the use of potential hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all potentially hazardous materials would be contained, stored, and used in accordance with manufacturers’ instructions and handled in compliance with applicable standards and

regulations. There is nothing unique or specific about the Project or its location that would warrant any mitigation beyond general compliance. As such, compliance with regulations and standards would serve to protect against significant and irreversible environmental change that could result from the accidental release of hazardous materials.

4. Growth-Inducing Impacts

Section 15126.2(d) of the CEQA Guidelines requires that growth-inducing impacts of a project be considered in a Draft EIR. Growth-inducing impacts are characteristics of a project that could directly or indirectly foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. According to the CEQA Guidelines, such projects include those that would remove obstacles to population growth (e.g., a major expansion of a waste water treatment plant that, for example, may allow for more construction in service areas). In addition, as set forth in the CEQA Guidelines, increases in the population may tax existing community service facilities, thus requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also require a discussion of the characteristics of projects, which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Finally, the CEQA Guidelines also state that it must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

a. Population

As discussed later in this section (under “Effects Found Not to be Significant”), the Project would not result in additional population generation as the residents of the existing single-family residence would move into the new, proposed single-family residence, with the existing residence reclassified as Accessory Living Quarters. Therefore, the Project would not result in a significant direct growth-inducing impact.

b. Employment

The Project proposes a new single-family residence, and does not propose any commercial uses that could generate indirect population growth as a result of employment opportunities.

During construction, the Project would create a small number (estimated at approximately 20 workers on a given work day) of temporary construction-related jobs. However, the work requirements of most construction projects are highly specialized such that construction workers remain at a job site only for the time in which their specific skills are needed to complete a particular phase of the construction process. Thus, construction workers would not be expected to relocate to the Project vicinity as a direct consequence

of working on the Project. Therefore, given the availability of construction workers, the Project would not be considered growth-inducing from a short-term employment perspective.

c. Utility Infrastructure Improvements

The Project Site is currently developed with an existing residence which is served by existing utilities and infrastructure (with the exception of sewer, as the Project Site has a private sewer disposal system). In addition, the existing building on the Project Site is not currently connected to natural gas infrastructure, although there is an existing natural gas line at the intersection of Mulholland Drive and Runyon Canyon Road. While the Project may require minor local infrastructure upgrades to maintain and improve water and electricity lines on-site and in the immediate vicinity of the Project Site, such improvements would be limited to serving Project-related demand. In addition, construction impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. Therefore, any infrastructure upgrades would not necessitate major local or regional utility infrastructure improvements that have not otherwise been accounted and planned for on a regional level.

5. Effects Not Found To Be Significant

In addition to the environmental impact categories analyzed in detail in this EIR, the City of Los Angeles (the “City”) has determined through the preparation of an Initial Study (included as Appendix A to this Draft EIR) that the development and operation of the Project would not result in potentially significant impacts to the environmental impact topics discussed below. Section 15128 of the CEQA Guidelines states the following:

An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Such a statement may be contained in an attached copy of an Initial Study.

It has been determined that there is no evidence that the Project would cause significant environmental effects in the following areas and that no further environmental review of these issues is necessary:

- Agriculture and Forestry Resources Thresholds a), b), c), d), and e)
- Air Quality Thresholds b), c), and d)
- Biological Resources Thresholds b), c), and f)

- Geology and Soils Thresholds a) i-iii
- Hazards and Hazardous Materials Thresholds a), b, c), d), and e)
- Hydrology/Water Quality Thresholds a), c.ii), c.iii), c.iv), and d)
- Land Use and Planning Threshold a)
- Mineral Resources Thresholds a) and b)
- Noise Threshold c)
- Population and Housing Thresholds a) and b)
- Public Services Thresholds b), c), d), and e)
- Recreation Thresholds a) and b)
- Transportation Threshold c)
- Utilities and Service Systems Thresholds a, b), c), d), and e)

a. Agriculture and Forestry Resources

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

The Project Site is not included in the Prime Farmland, Unique Farmland, or Farmland of Statewide Importance category.¹ The Project Site does not currently contain any agricultural uses, and thus, would not result in the conversion of land zoned for agricultural use to non-agricultural use. Therefore, no impact with respect to land zoned for agricultural use or under a Williamson Act Contract would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project Site does not contain any State-designated agricultural lands. Thus, the Project Site is not subject to a Williamson Act Contract. Further, the Project would not

¹ State of California Department of Conservation, *Farmland Mapping and Monitoring Program, Los Angeles County Important Farmland 2010, Map, website: <http://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/los10.pdf>, accessed February 2017.*

result in the conversion of land under a Williamson Act Contract from agricultural use to non-agricultural use. Therefore, no impact with respect to land zoned for agricultural use or under a Williamson Act Contract would occur.

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

The Project Site does not contain any forest land, timberland, or timberland zoned Timberland Production, as it is zoned RE for Residential Estate. Therefore, no impact with respect to land zoned for forest or timber land would occur.

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

The Project Site does not contain any forest land, and thus would not result in the loss or conversion of forest land to non-forest use. Therefore, no impact to the loss of forest land or conversion of forest land to non-forest uses would occur.

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

Neither the Project Site nor surrounding parcels are zoned for farmland, forest land or timberland, as most of the area surrounding the Project Site is residentially zoned land. Runyon Canyon Park, which also surrounds the Project Site, is an urban park zoned OS (Open Space) and not zoned for forest land or timberland.

Since neither the Project Site nor surrounding parcels are utilized for agricultural uses or forest land, no impacts related to the conversion of farmland to a non-agricultural use, or conversion of forest land to a non-forest use, would occur as a result of the Proposed Project, and there would be no impact.

b. Air Quality

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

(1) Construction

A project's construction impacts could be considered cumulative considerable if it substantially contributes to cumulative air quality violations when considering other projects that may undertake concurrent construction activities.

Construction of the Proposed Project would not contribute significantly to cumulative emissions of any non-attainment regional pollutants. The Project would not exceed SCAQMD mass emission thresholds for ozone precursors during construction. Similarly, regional emissions of PM₁₀ and PM_{2.5} would not exceed mass thresholds established by the SCAQMD. Therefore, construction emissions impacts on regional criteria pollutant emissions would be considered less than significant.

When considering local impacts, cumulative construction emissions are considered when projects are within close proximity of each other that could result in larger impacts on local sensitive receptors. Construction of the Project itself would not produce cumulative considerable emissions of localized nonattainment pollutants PM₁₀ and PM_{2.5}, as the anticipated emissions would not exceed LST thresholds set by the SCAQMD. This is considered a less than significant impact.

Thus, construction of the Proposed Project would not have any considerable contribution to cumulative impacts on pollutant concentrations at nearby receptors.

(2) Operation

As for cumulative operational impacts, the proposed land use will not produce cumulatively considerable emissions of nonattainment pollutants at the regional or local level. Because the Project's air quality impacts would not exceed the SCAQMD's operational thresholds of significance as noted in Table VI-2, below, the Project's impacts on cumulative emissions of non-attainment pollutants is considered less than significant. The Project is a residential development that would not include major sources of combustion or fugitive dust. As a result, its localized emissions of PM₁₀ and PM_{2.5} would be minimal.

Overall, long-term operation of the Project would not result in a cumulatively considerable net increase of any non-attainment criteria pollutant, and impacts for construction and operation would be less than significant.

c) *Expose sensitive receptors to substantial pollutant concentrations?*

A significant impact may occur if a project were to generate pollutant concentrations to a degree that would significantly affect sensitive receptors. Land uses that are considered more sensitive to air pollution than others include hospitals, schools, residences, playgrounds, childcare centers, athletic facilities, and retirement homes.² Sensitive receptors near the Project Site include the following:

- Single-family residences on Larmar Road; as close as 700 feet northeast of the Project Site.
- Single-family residences on Chelan Drive; as close as 700 feet east of the Project Site.

(1) Construction – Regional Emissions

Construction-related emissions were estimated using the South Coast Air Quality Management District's (SCAQMD's) CalEEMod 2016.3.1 model using the assumed construction schedule of approximately 18 months.

As shown in Table VI-1, below, the construction of the Proposed Project would produce VOC, NOX, CO, SO_x, PM₁₀ and PM_{2.5} emissions that do not exceed the SCAQMD's regional thresholds. As a result, construction of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

² South Coast Air Quality Management District, *CEQA Air Quality Handbook, Figure 5-1, April 1993.*

Table VI-1 Estimated Daily Construction Emissions - Unmitigated						
Construction Phase	Pounds Per Day					
	VOC	NO_x	CO	SO_x	PM₁₀	PM_{2.5}
2018	5	52	25	<1	21	13
2019	4	23	18	<1	1	1
Maximum Regional Total	5	52	25	<1	21	13
Regional Significance Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Maximum Localized Total	5	52	23	<1	21	13
Localized Significance Threshold	--	126	3,016	--	80	28
Exceed Threshold?	N/A	No	No	N/A	No	No
<i>Source: DKA Planning, 2017 based on CalEEMod 2016.3.1 model runs. LST analyses based on 2-acre site with 200-meter distances to receptors in Central LA source receptor area. Modeling included as Appendix D to this Draft EIR.</i>						

(2) Construction – Localized Emissions

In terms of local air quality, the Proposed Project would produce emissions that do not exceed the SCAQMD's recommended localized standards of significance for NO₂, CO, PM₁₀, and PM_{2.5} during the construction phase. This analysis assumes compliance with SCAQMD Rule 403, which addresses fugitive dust emissions, and Rule 1113, which governs the VOC content of architectural coatings. As shown in Table VI-1, construction of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

(3) Operation

The Project would also produce long-term air quality impacts to the region primarily from motor vehicles that access the Project Site. It is assumed that the existing house would not generate any additional traffic and emissions once the new home is built. Operational emissions would not exceed SCAQMD's regional significance thresholds for VOC, NO_x, CO, PM₁₀ and PM_{2.5} emissions (Table VI-2). As a result, the Project's operational impacts on regional air quality are considered less than significant.

With regard to localized air quality impacts, the Proposed Project would emit minimal emissions of NO₂, CO, PM₁₀, and PM_{2.5} from area and energy sources on-site. As shown in Table VI-2, these localized emissions would not approach the SCAQMD's localized significance thresholds that signal when there could be human health impacts at nearby sensitive receptors during long-term operations. The Project's operational impacts on localized air quality are considered less than significant.

Table VI-2 Estimated Daily Operations Emissions - Unmitigated						
Emission Source	Pounds per Day					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Sources	1	<1	1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	<1	<1	<1	<1	<1	<1
Net Regional Total	1	<1	1	<1	<1	<1
Regional Significance Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Net Localized Total	4	<1	8	<1	<1	<1
Localized Significance Threshold	-	80	498	-	20	7
Exceed Threshold?	N/A	No	No	N/A	No	No
<i>Source: DKA Planning 2017 based on CalEEMod 2016.3.1 model runs. Modeling included as Appendix D to this Draft EIR.</i>						

Overall, long-term operation of the Proposed Project would not have any significant impacts from substantial pollutant concentrations to nearby sensitive receptors.

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

A significant impact would only occur if the project would generate substantial odors. The SCAQMD's *CEQA Air Quality Handbook* identifies those land uses that are associated with odor complaints, which typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.

The Proposed Project would add a new residential structure to the area but would not result in activities that create objectionable odors. It would not include any land uses typically associated with unpleasant odors and local nuisances (e.g., rendering facilities, dry cleaners). SCAQMD regulations that govern nuisances (i.e., Rule 402, Nuisances) would regulate any occasional odors associated with on-site uses. As a result, any odor impacts from the Project would be considered less than significant.

c. Biological Resources

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

A significant impact would occur if riparian habitat or any other sensitive natural community identified locally, regionally, or by the state and federal regulatory agencies

cited would be adversely modified by a project. There are no riparian areas located on or adjacent to the Project Site.³ Therefore, no impact would occur.

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

A significant impact would occur if federally protected wetlands, as defined by Section 404 of the Clean Water Act, would be modified or removed by a project. Review of the National Wetlands Inventory identified no wetlands or water features on the Project Site.⁴ Therefore, no impact would occur.

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

A significant impact would occur if a project would conflict with policies in any draft or adopted conservation plan. The Project Site is not located in or adjacent to an existing or proposed Significant Ecological Area.⁵ Additionally, there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan that applies to the Project Site.⁶ The Project would not conflict with any habitat conservation plans. Therefore, no impact would occur.

³ *NavigateLA, Water, Lakes, and Streams layer: <http://navigateLA.lacity.org/navigateLA/>, February 2017.*

⁴ *U.S. Fish & Wildlife Service, National Wetlands Inventory: <http://www.fws.gov/wetlands/data/mapper.HTML>*

⁵ *Los Angeles County Department of Regional Planning, Significant Ecological Areas, Significant Ecological Areas and Coastal Resource Areas Policy Map, http://planning.lacounty.gov/assets/upl/project/gp_2035_2014-FIG_9-3_significant_ecological_areas.pdf, accessed March 9, 2017.*

⁶ *California Department of Fish and Wildlife, California Regional Conservation Plans Map, website: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>, accessed March 22, 2018.*

d. Geology and Soils

a.i) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Fault rupture is defined as the surface displacement that occurs along the surface of a fault during an earthquake. Based on criteria established by the California Geological Survey (CGS), faults can be classified as active, potentially active, or inactive. Active faults may be designated as Earthquake Fault Zones under the Alquist-Priolo Earthquake Fault Zoning Act, which includes standards regulating development adjacent to active faults. In addition, the City of Los Angeles designates Fault Rupture Study Zones on each side of active and potentially active faults to establish areas of hazard potential. A significant impact would occur if the Proposed Project would exacerbate existing environmental conditions by bringing people or structures into areas potentially susceptible to substantial adverse effects, including fault rupture. According to the California Department of Conservation Special Studies Zone Map⁷, the Project Site is not located within an Alquist-Priolo Special Studies Zone or Fault Rupture Study Area and is not located on a known fault. The Proposed Project would not expose people or structures to potential adverse effects resulting from the rupture of known earthquake faults, caused in whole or in part by the Project's exacerbation of existing environmental conditions. Therefore, no direct or indirect impacts would occur.

a.ii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

A significant impact would occur if the Proposed Project would cause personal injury or death or resulted in property damage as a result of seismic ground shaking, caused in whole or in part by the Project's exacerbation of existing environmental conditions. As described above, the Project Site is located within the seismically active region of Southern California and would potentially be subject to strong ground motion if a moderate to strong earthquake occurs on a local or regional fault. The potentially significant impacts related to seismic ground shaking at the Project Site would not be exacerbated by the Project because the Project would not involve mining operations,

⁷ California Department of Conservation, California Geological Survey Regulatory Maps: <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>

deep excavation into the earth, or boring of large areas creating unstable seismic conditions that would exacerbate ground shaking. Furthermore, as discussed above, no active faults with the potential for surface fault rupture are known to pass directly beneath the Project Site. Therefore, no direct or indirect impacts related to strong seismic ground shaking would occur.

a.iii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

A significant impact may occur if a project site is located within a liquefaction zone. Liquefaction is the loss of soil strength or stiffness due to a buildup of pore-water pressure during severe ground shaking. This Site is not located in the California Department of Conservation's Seismic Hazard Zones Map, and the Project Site is not located within a liquefaction zone. Therefore, no direct or indirect impacts related to the Project's exacerbation of existing environmental conditions that would cause seismic-related ground failure, including liquefaction, would occur.

e. Hazards and Hazardous Materials

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

An impact may occur if a project would involve the use or disposal of hazardous materials as part of its routine operations or would have the potential to generate toxic or otherwise hazardous emissions that could adversely affect sensitive receptors. The Project involves the construction of a single-family residential structure. Other than the typical cleaning solvents used for janitorial purposes and chemicals used for pool maintenance, no hazardous materials would be used, transported, or disposed of in conjunction with the routine day-to-day operations of the Project.

Construction could involve the use of potential hazardous materials, including vehicle fuels, oils, and transmission fluids. However, all potentially hazardous materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. There is nothing unique or specific about the Project or its location that would warrant any mitigation beyond general compliance. Thus, impacts would be less than significant.

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

A significant impact would occur if the Project created a significant hazard to the public or environment due to a reasonably foreseeable release of hazardous materials. The Project Site is not within a Methane Zone or Methane Buffer Zone identified by the City.⁸ Further, the Division of Oil, Gas & Geothermal Resources Online Mapping System shows that the Project Site is not within an active or inactive oil field and there are no oil wells within vicinity of the Project Site.⁹ Therefore there is a negligible risk of subsurface methane release.

Based in the age of the building on-site, there is a potential for asbestos-containing materials (ACMs) and lead-based paints (LBPs) at the Project Site. However, no demolition is proposed at the Project Site during construction of the Proposed Project, and therefore the risks associated with the accidental release of ACMs and LBP would be less-than-significant. In addition, as noted below in d), the Project Site is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.¹⁰ Thus, operation of the Proposed Project would not create a significant risk of exposure to hazardous materials towards the public or the environment.

The Proposed Project would involve the construction of a new single-family residence, which would not involve the routine use, storage, transport, or disposal of notable quantities of hazardous materials. Project construction would not involve the use of hazardous materials in substantial amounts such that a measurable risk to on-site workers or off-site residents would result from temporary construction activities. Hazardous materials to be used in association with operation of the Project such as small quantities of potentially hazardous materials in the form of cleaning solvents, painting supplies, pesticides for landscaping, and pool maintenance would be contained, stored,

⁸ City of Los Angeles Department of City Planning, ZIMAS, Parcel Profile Report, <http://zimas.lacity.org/>, accessed March 30, 2018.

⁹ California Department of Conservation, Division of Oil, Gas & Geothermal Resources Well Finder: <https://maps.conservation.ca.gov/doggr/wellfinder/#close>, accessed March 30, 2018.

¹⁰ California Department of Toxic Substances Control EnviroStor: <http://www.envirostor.dtsc.ca.gov/?url=r40r8>, accessed March 30, 2018.

and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations.

Based on the above, with compliance with regulatory requirements, the Project would not result in a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant, and no further evaluation is required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

A significant adverse effect may occur if a Project Site is located within one-quarter mile of an existing or proposed school site and is projected to release toxic emissions which pose a health hazard beyond regulatory thresholds. The Project Site is not located within 0.25 mile of a school.¹¹ Further, the Project would use, at most, minimal amounts of hazardous materials for routine cleaning and maintenance that would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. Therefore no impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment, caused in whole or in part from the project's exacerbation of existing environmental conditions?

California Government Code Section 65962.5 requires various state agencies to compile lists of hazardous waste disposal facilities, unauthorized release from underground storage tanks, contaminated drinking water wells, and solid waste facilities from which there is known migration of hazardous waste and submit such information to the Secretary for Environmental Protection on at least an annual basis. This question would apply only if the Project Site is included on any of the above referred to lists and, therefore, would pose an environmental hazard to surrounding sensitive uses.

In meeting the provisions in Government Code Section 65962.5, commonly referred to as the "Cortese List," database resources that provide information regarding identified facilities or sites include EnviroStor, GeoTracker, and other lists compiled by the California Environmental Protection Agency have been reviewed.

¹¹ *NavigateLA, Schools Layer: <http://navigatela.lacity.org/navigatela/>*

The Project Site has not been identified as a solid waste disposal site having hazardous waste levels outside of the Waste Management Unit.¹²

Also, the Project Site is not subject to corrective action pursuant to the Health and Safety Code, as it has not been identified as a hazardous waste facility.¹³ Therefore, the Project would not exacerbate existing environmental conditions (i.e., be located on a Cortese site list) and would not create a significant hazard.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Project Site is not located within two miles of an airport, private airstrip, or within an area subject to an airport land use plan. The Project Site is not located in the vicinity of a public airport or private airstrip. Further, as discussed in Section IV.K, Noise, operation of the Project would not result in excessive noise for people residing or working in the Project area. Therefore, the Project would not have the potential to exacerbate current environmental conditions that would result in a safety hazard and no impact would occur.

f. Hydrology and Water Quality

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

A significant impact may occur if a project discharges water which does not meet the quality standards of agencies that regulate surface water quality and water discharge into stormwater drainage systems. Significant impacts would also occur if a project does not comply with all applicable regulations with regard to surface water quality as governed by the State Water Resources Control Board (SWRCB). These regulations include compliance with the City's Low Impact Development (LID) Ordinance and Storm Water Pollution Prevention Program (SWPPP). Also, the National Pollutant Discharge Elimination System (NPDES) program establishes a comprehensive stormwater quality

¹² State of California Environmental Protection Agency, Cortese List Data Resources, Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit, website: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf>, accessed February 2017.

¹³ State of California Environmental Protection Agency, Cortese List Data Resources, Cortese List: Section 65962.5(a), website: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/SectionA.htm#Facilities>, accessed February 2017.

program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable. Pursuant to the NPDES, the Project is subject to the requirements set forth in the County's Standard Urban Stormwater Mitigation Plan (SUSMP). The goals and objectives of the SUSMP are achieved through the use of Best Management Practices (BMPs) to help manage runoff water quality.

Overall, the Project will not use industrial waste discharge. However, the SUSMP identifies the types and sizes of private development projects that are subject to its requirements. Requirements of the SUSMP are enforced through the City's plan approval and permit process. Implementation of the aforementioned and compliance with the local, State, and federal regulations, code requirements, and permit provisions would prevent significant impacts related to the release of potentially polluted discharge into surface water. Thus, potential impacts would be less than significant and the Project would not substantially degrade surface or groundwater quality.

c(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

A significant impact may occur if a project results in increased runoff volumes during construction or operation of the project that would result in flooding conditions affecting the Project Site or nearby properties. No natural watercourses exist on or in the vicinity of the Project Site, and runoff flows toward the existing storm drains. Further, development of the Project would not significantly increase overall stormwater runoff volume as the Project design includes green roofs planted with grass. Therefore, no flooding is expected to occur on- or off-site. Impacts related to surface runoff, including through the alteration of the course of a stream or river or the increase of impervious surface area, would therefore be less than significant.

c(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

A significant impact may occur if a project would increase the volume of stormwater runoff to a level which exceeds the capacity of the storm drain system serving the Project Site, or if the Project would substantially increase the probability that polluted runoff would reach storm drains. Urban runoff discharged from municipal storm drains is one of the

principal causes of water quality problems in most urban areas. Oil and grease from parking lots, pesticides, cleaning solvents, and other toxic chemicals can contaminate stormwater, which can then contaminate receiving waters downstream and, eventually, the Pacific Ocean. Construction of the Project could contribute to the degradation of existing surface water quality conditions primarily due to: 1) potential erosion and sedimentation during the grading phase; 2) particulate matter from dirt and dust generated on the Site; and 3) construction activities and equipment. However, compliance with the requirements of the City's Low Impact Development Ordinance and/or SUSMP, would reduce the amount of additional stormwater runoff from the Project Site and the introduction of pollutants to stormwater runoff during construction and operation to the maximum extent practicable. Development of the Project would not significantly increase overall stormwater runoff volume as the project design includes green roofs planted with grass. Therefore, this potential impact would be less than significant.

c(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The Project Site is not located within an area identified by Federal Emergency Management Agency (FEMA) as potentially subject to 100-year floods.¹⁴ The Site is not located within a City-designated 100-year or 500-year flood plain.¹⁵ As the Site is located in an area of minimal flooding, the Project would not introduce people or structures to an area of high flood risk. Therefore, the Project would not contain any significant risks of flooding and would not have the potential to impede or redirect floodwater flows. No impact would occur.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Project Site is not located within an area identified by Federal Emergency Management Agency (FEMA) as potentially subject to 100-year floods.¹⁶ The Site is not

¹⁴ NavigateLA, FEMA Flood Hazard layer: <http://navigatela.lacity.org/navigatela/>, February 2017.

¹⁵ City of Los Angeles, Safety Element of the General Plan, 100-Year and 500-Year Flood Plains, Exhibit F.

¹⁶ NavigateLA, FEMA Flood Hazard layer: <http://navigatela.lacity.org/navigatela/>, February 2017.

located within a City-designated 100-year or 500-year flood plain.¹⁷ Therefore, the Project Site is located in an area of minimal flooding.

Seiches are oscillations generated in enclosed bodies of water, which can be caused by ground shaking associated with an earthquake. Tsunamis are large ocean waves generated by sudden water displacement caused by a submarine earthquake, landslide, or volcanic eruption. There are no water bodies located on-site. The Project Site is approximately 11 miles east of the Pacific Ocean and a review of the City of Los Angeles Inundation and Tsunami Hazard Area Map indicates that the Project Site does not lie within an area subject to tsunamis or within a mapped inundation boundary.¹⁸ The nearest enclosed body of water is the Hollywood Reservoir, located approximately 1 mile to the east. As such, no impact would occur with respect to inundation from flooding, a tsunami, or seiche.

g. Land Use and Planning

a) Physically divide an established community?

A significant impact may occur if a project were sufficiently large enough or otherwise configured in such a way as to create a physical barrier within an established community. A typical example would be a project that involved a continuous right-of-way such as a roadway, which would divide a community and impede access between parts of the community. The Project is not of the scale or nature that could physically divide an established community, given that the structure is a single-family residence in a low density zoned residential neighborhood with similar type structures on all locations of the Project Site. No residential uses or communities would be divided as a result of the Project and no impact would occur.

h. Mineral Resources

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Neither the Project Site nor the surrounding area is identified as an area containing mineral deposits of regional or statewide significance. Additionally, the Project Site is not located within an oil field or oil drilling area, and is not part of any Oil Drilling and Surface

¹⁷ City of Los Angeles, Safety Element of the General Plan, 100-Year and 500-Year Flood Plains, Exhibit F.

¹⁸ Ibid.

Mining Supplemental Use District.¹⁹ Furthermore, no oil wells exist or are known to have previously existed on the Project Site or the surrounding area. Therefore, there would be no impact.

b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Neither the Project Site nor the surrounding area is identified as an area containing mineral deposits of regional or statewide significance. Additionally, the Project Site is not located within an oil field or oil drilling area, and is not part of any Oil Drilling and Surface Mining Supplemental Use District.²⁰ Furthermore, as previously discussed, no oil wells exist or are known to have previously existed on the Project Site or the surrounding area. Therefore, there would be no impact.

i. Noise

c) For a project located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The Project Site is not located within 2 miles of a public airport or public or private airstrip. Therefore, the Project would not expose people to excessive noise levels related to the operation of a public airport or private airstrip. Thus, no impact would occur.

j. Population and Housing

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

A significant impact would occur if a project would locate new development such as homes, businesses, or infrastructure, with the effect of substantially inducing population growth.

The Project involves the construction of only one single-family residential structure, and does not include construction of new roads or other infrastructure that would indirectly

¹⁹ City of Los Angeles, Safety Element of the General Plan, Oil Field and Oil Drilling Areas Map, Exhibit E.

²⁰ Ibid.

induce growth. The Project would not result in additional population generation as the residents of the existing single-family residence would move into the new, proposed single-family residence, with the existing residence reclassified as Accessory Living Quarters. As development of the Project would not induce substantial population growth and would be supported by the existing infrastructure such as roadways, a less than significant impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

A significant impact may occur if a project would result in displacement of a substantial number of people or existing housing units, necessitating construction of replacement housing elsewhere. The Project would not displace any people or housing since there is no housing on the Site that would be demolished. Further, the Project would develop a single-family home. Therefore, no impact would occur.

k. Public Services

b) Police protection?

A significant impact may occur if a project creates the need for new or physically altered police facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

The Project Site is currently served by the following City of Los Angeles Police Department's (LAPD) station at:

- Hollywood Community Police Station, 1358 North Wilcox Avenue.

Construction sites can be sources of attractive nuisances, providing hazards, and inviting theft and vandalism. Therefore, when not properly secured, construction sites can become a distraction for local law enforcement from more pressing matters that require their attention. The Project Applicant would employ construction security features, such as fencing the perimeter of the construction area (as required per the LAMC), which would serve to minimize the need for LAPD services and prevent trespassing and theft during Project construction.

The Project involves the construction of only one single-family residential structure. The Project would not result in additional population generation as the residents of the existing single-family residence would move into the new, proposed single-family residence, with the existing residence reclassified as Accessory Living Quarters. As such, the Project could potentially increase the number of police service calls due to an increase

in onsite visitors. However, the potential increase of daily visitors to the Project Site is expected to be minimal and would not create a need for new or physically altered police facilities, the construction of which could cause significant environmental impacts. Therefore, impacts would be less than significant.

c) Schools?

A significant impact may occur if a project includes substantial employment or population growth, which could generate demand for additional school facilities, the construction of which could cause significant environmental impacts. The Project would result in only one new single-family residence with a population of four residents. Therefore, the Project would not induce substantial student population growth. Moreover, California Education Code Section 17620(a)(1) states that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirements against any construction within the boundaries of the district, for the purposes of funding the construction or reconstruction of school facilities. The LAUSD School Facilities Fee Plan has been prepared to support the school district's levy of the fees authorized by California Education Code Section 17620. The Leroy F. Greene School Facilities Act of 1998 (SB 50) sets a maximum level of fees a developer may be required to pay to mitigate a project's impacts on school facilities. The maximum fees authorized under SB 50 apply to zone changes, general plan amendments, zoning permits and subdivisions. The provisions of SB 50 are deemed to provide full and complete mitigation of school facilities impacts even though the Project would not result in the demand for new school facilities. Thus, the Project's impact would be less than significant with payment of these fees.

d) Parks?

A significant impact to parks would occur if implementation of a project includes a new or physically altered park or creates the need for a new or physically altered park, the construction of which could cause substantial adverse physical impacts. The City of Los Angeles Department of Recreation and Parks (LADRP) manages all municipally owned and operated recreation and park facilities within the City. The Public Recreation Plan, a section of the General Plan's Service Systems Element, lists standards for the provision of recreational facilities throughout the City. The City's standard ratio of neighborhood and community parks to population is four acres per 1,000 people. A half-mile radius is the standard service radius for neighborhood parks; a two-mile radius is the standard service radius for community parks.

It should be noted that the Project Site was fully developed prior to the creation of Runyon Canyon Park by the City of Los Angeles in 1984. The Proposed Project Site includes a portion of a popular hiking trail, which would remain open to the public and not impacted by the Project.

The Project would result in only one new single-family residence with a population of four residents. The Project also includes on-site recreational features that would reduce the demand for public park services, such as an indoor gym, outdoor pool and landscaped yard space. The Project Applicant would comply with the requirement for payment of any applicable park fees to the City of Los Angeles. Therefore, Project impacts would be less than significant.

e) Other public facilities?

A significant impact may occur if a project includes substantial employment or population growth that could generate a demand for other public facilities, such as libraries, which would exceed the capacity to service the Project Site. The City of Los Angeles Public Library (LAPL) provides library services throughout the City. However, as discussed above, the Project would not generate any new substantial population of residents, and therefore there would be no additional demand for library services and need for library facilities, and impacts would be less than significant.

I. Recreation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?

A significant impact may occur if a project would include substantial employment or population growth which could generate an increased demand for neighborhood and regional parks that exceeds the capacities of existing parks and causes premature deterioration of the park facilities.

The Project is not anticipated to generate any substantial amounts of new residents, as the residents of the existing structure would move in to the new proposed residence. The nearest regional park is Runyon Canyon Park, but the limited number of residents created by the Project would not increase the use of Runyon Canyon Park such that substantial physical deterioration of facilities would occur, and impacts would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Given the scope of the Project (i.e., single-family residential use) and the limited population it creates, the Project is not anticipated to propose recreational facilities or

require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

m. Transportation

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

A significant impact may occur if a project were to include a new roadway design, introduce a new land use or project features into an area with specific transportation requirements and characteristics that have not been previously experienced in that area, or if project access or other features were designed in such a way as to create hazardous conditions. The Project does not include any sharp curves, dangerous intersections, or incompatible uses. No off-site traffic improvements are proposed or warranted in the area surrounding the Project Site, and as such no impacts would occur.

n. Utilities and Service Systems

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?

A significant impact may occur if a project would increase water, electricity, or natural gas consumption or the generation of drainage or wastewater to such a degree that the capacity of facilities currently serving the Project Site would be exceeded, necessitating the construction of new or expanded facilities, which could cause significant environmental effects.

The Project proposes to provide its own sewer disposal system on-site. The system that serves the existing residence on the Project Site currently has two seepage pits that are connected and one new seepage pit that has not been used but that could serve the proposed single-family residence. Additionally, water conservation measures required by City ordinance (e.g., installation of low flow toilets and plumbing fixtures) would be implemented as part of the Project to reduce the amount of Project-generated wastewater. Limitations on hose washing of driveways and parking areas would further reduce the amount of wastewater generated by the Project. Due to the connection of the new seepage pit on-site and the fact that the Project would generate a negligible population, it is not anticipated that the Project would require the construction of new or expansion of water or wastewater treatment facilities, the construction of which could cause significant environmental effects.

As described previously, the Project includes construction of a new single-family residence, with the residents of the existing residence moving into the new residence, with the existing residence reclassified as Accessory Living Quarters. The existing residence is currently served by electricity and telecommunications facilities. As existing electricity and telecommunications infrastructure already exists to serve the existing residence, the connection of the infrastructure to the new residence would not cause significant environmental effects. The existing home is not currently connected to natural gas infrastructure, although there is currently an existing natural gas line at the intersection of Mulholland Drive and Runyon Canyon Road. Construction impacts associated with the installation of natural gas connections to this existing line are expected to be confined to trenching in order to place the lines below surface. Further, as the Project is one single-family residence, the Project's consumption of electricity and natural gas would be minimal.

Finally, runoff currently flows toward the existing storm drains and development of the Project would not significantly increase overall stormwater runoff volume as the Project design includes green roofs planted with grass. Therefore, the existing storm water drainage facilities would be sufficient to serve the Project.

Overall, the Project would not require or result in the relocation or construction of new or expanded facilities related to water, wastewater, storm water, electric power, natural gas, or telecommunications, the construction of which could cause significant environmental effects, and impacts would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

A significant impact may occur if a project were to increase water consumption to such a degree that new water sources would need to be identified, or that existing resources would be consumed at a pace greater than planned for by purveyors, distributors, and service providers. The City's water supply comes from local groundwater sources, the Los Angeles-Owens River Aqueduct, State Water Project, and from the Metropolitan Water District of Southern California, which is obtained from the Colorado River Aqueduct. These sources, along with recycled water, are expected to supply the City's water needs in the years to come.

The 2015 Urban Water Management Plan projects a supply of 611,800 AFY in 2020. Any shortfall in LADWP controlled supplies (groundwater, recycled, conservation, LA aqueduct) is offset with MWD purchases to rise to the level of demand. Also, the Project is solely a single-family residential structure and would not require expanded entitlements during normal, dry, and multiple dry years.

In addition, any project that is consistent with the General Plan has been taken into account in the planned growth in water demand from the LADWP. Since the Project is only a single family residential structure and is on a parcel that is zoned for residential structures, the development would be consistent with the City's General Plan and the LADWP would have sufficient water supplies available to serve the needs of the Project. Therefore, the Project's water supply needs have already been accommodated within water supply projections for the region.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

As discussed in response to Threshold (a), the Project proposes to provide its own sewer disposal system on-site. Since the Project proposes a septic tank on-site, and because of the negligible amount of wastewater that would be generated by the single-family home, it is not anticipated that the Project would result in a determination by a wastewater treatment provider that the Project could not be served by the provider's existing commitments. Therefore, Project impacts related to wastewater treatment providers would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

According to the State permit issued on July 7, 2008, the Sunshine Canyon Landfill is estimated to close in 2037. It has approximately 112.3 million cubic yards (cy) of remaining capacity out of a total capacity of 140.9 million cy, and a maximum permitted daily intake of 12,100 tons per day (tpd). For a point of reference, 1.7 cubic yards is equal one ton of solid waste. As of June 30, 2011, Sunshine Canyon Landfill accepted approximately 9,000 tpd during the week and 3,000 tpd on Saturday (due to reduced hours of operation). Therefore, the Sunshine Canyon Landfill has a remaining daily capacity intake of approximately 3,100 tpd during the week.

Construction of the Project would generate minimal amounts of construction and demolition (i.e., demolition of the carport) debris that would need to be disposed of at area landfills. Construction and demolition debris includes concrete, asphalt, wood, drywall, metals, and other miscellaneous and composite materials. California Assembly Bill (AB) 939, also known as the Integrated Waste Management Act, requires each city and county in the State to divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. As such, much of this material would be recycled and salvaged to the maximum extent feasible. Materials not recycled would be disposed of at local landfills.

Compliance with AB 939 would require a minimum of 50 percent of demolition and construction debris to be recycled, and compliance with SB 1374 requires that the Project implement a construction waste management plan to recycle and/or salvage a minimum of 75 percent of non-hazardous demolition and construction debris. Because of the recycling of most of the solid waste generated by the construction of the Project, short-term construction impacts to landfills and solid waste services would be less than significant.

As discussed above, the Sunshine Canyon Landfill can accept 12,100 tpd (and currently accepts 9,000 tpd on weekdays and 3,000 tpd on Saturday), and could therefore accommodate the additional increase in solid waste resulting from the Project, which would be minimal given that the Project is a single-family residential structure. In addition, pursuant to AB 939, each city and county in the State must divert 50 percent of its solid waste from landfill disposal through source reduction, recycling, and composting. Overall, there is sufficient landfill capacity to accommodate the solid waste generated by the Project, and impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Solid waste management in the State is primarily guided by the California Integrated Waste Management Act of 1989 (AB 939) which emphasizes resource conservation through reduction, recycling, and reuse of solid waste. AB 939 establishes an integrated waste management hierarchy consisting of (in order of priority): 1) source reduction; 2) recycling and composting; and 3) environmentally safe transformation and land disposal. Additionally, the City is currently implementing its “Zero-Waste-to-Landfill” goal to achieve zero waste to landfills by 2025 to enhance the Solid Waste Integrated Resources Planning Process. Recycling efforts in the City in accordance with AB 939 achieved a solid waste diversion rate of 76.4 percent in 2011, the most recent year data is available.

The Project would comply with the applicable regulations associated with solid waste, including AB 939, AB 341, SB 1374, and the Los Angeles Green Building Code. Since the Project would comply with federal, State, and local statutes and regulations related to solid waste, a less than significant impact would occur, and no mitigation measures would be required.

VII. Preparers of the EIR

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Tribal Resources

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VIII. Acronyms and Abbreviations

AB	Assembly Bill
ACC	Advanced Clean Cars
ACM	asbestos-containing materials
ADT	Average Daily Traffic
AP	Alquist-Priolo
APN	Assessor Parcel Number
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACM	Best Available Control Measures
BACT	Best Available Control Technology
BAU	Business As Usual
BMP	best management practices
BOE	Bureau of Engineering
BOS	Bureau of Sanitation
CAA	Clean Air Act (Federal)
CAAQS	California ambient air quality standards
CalEEMod	California Emissions Estimator Model
Cal/EPA	California Environmental Protection Agency
CalGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CA MUTCD	California Manual on Uniform Traffic Control Devices
Cal-OSHA	California Occupational Safety and Health Administration
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CalGreen Code	California Green Building Standards Code
CAPCOA	California Air Pollution Control Officers Association
CBIA	California Building Industry Association
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
CHRIS	California Historical Resources Information System

City	City of Los Angeles
CMP	Congestion Management Plan
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CP	Community Plan
CPs	Community Plans
CPA	Community Planning Area
CSC	California Species of Special Concern
CTMP	Construction Traffic Management Plan
CWA	Clean Water Act
CWC	California Water Code
CWL	California Watch List
Cy	Cubic yard
dB	decibel
dBA	A-weighted decibel
DBS	Department of Building and Safety
D/C ratio	Demand to Capacity ratio
DHS	Department of Health Services
DOSH	California Department of Safety and Health
DPM	Diesel Exhaust Particulate Matter
DRB	Design Review Board
DTSC	Department of Toxic Substances Control
du	dwelling unit
EDR	Environmental Data Resources, Inc
EFZ	Earthquake Fault Zone
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FAR	floor-area-ratio
FC	Federal Candidate Species
FE	Federally listed as Endangered
FED	Functional Equivalent Document
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FIRMs	Flood Insurance Rate Maps
FPE	Federally Proposed as Endangered
FPD	Federally Proposed for delisting
FPT	Federally Proposed as Threatened
FSC	Federal Species of Concern
ft	feet

FT	Federally listed as Threatened
FTA	Federal Transit Administration
GHG	greenhouse gas
gpd	gallons per day
gpm	gallons per minute
GWP	global warming potentials
HCM	Historical-Cultural Monuments
HFCs	hydrofluorocarbons
HP	Horse Power
HQTA	High Quality Transit Area
IBC	International Building Code
IGR	Intergovernmental Review
IIPP	Injury and Illness Prevention Program
IS	Initial Study
LABC	Los Angeles Building Code
LACFCD	Los Angeles County Flood Control District
LADBS	Los Angeles Department of Building and Safety
LADOT	Los Angeles Department of Transportation
LADPW	Los Angeles County Department of Public Works
LADRP	Los Angeles Department of Recreation and Parks
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAGBC	Los Angeles Green Building Code
LAMC	Los Angeles Municipal Code
LAPD	Los Angeles Police Department
LAPL	Los Angeles Public Library
LARWQCB	Los Angeles Regional Water Quality Control Board
LAUSD	Los Angeles Unified School District
LBP	Lead-based paint
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
L_{eq}	equivalent sound level
L_{max}	maximum noise level
LEED	Leadership in Energy and Environmental Design
LEV	Low-Emission Vehicle
LID	Low Impact Development
LOS	Level of Service
LST	Localized Significance Thresholds
L_v	velocity level
MBTA	Migratory Bird Treaty Act
MMT CO_2e	One Million Metric Tons of Carbon Dioxide-Equivalent
MSPSP	Mulholland Scenic Parkway Specific Plan
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSP	Mulholland Scenic Parkway

MT	Metric Tons
MVP	major vista point
MWD	Metropolitan Water District
N ₂ O	nitrous oxide
NAAQS	National ambient air quality standards
NAHC	Native American Heritage Commission
NAT	No Action Taken
NEPA	National Environmental Policy Act
NESHAPs	National Emission Standards for Hazardous Air Pollutants
NHTSA	National Highway Traffic Safety Administration
NIH	National Institute of Health
NO ₂	nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	Ozone
OES	Governor's Office of Emergency Services
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	lead
PDF	Project Design Feature
PFCs	perfluorocarbons
PM	particulate matter
PM ₁₀	respirable particulate matter
PM _{2.5}	fine particulate matter
ppv	peak particle velocity
psi	pounds per square inch
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
RFS	Renewable Fuel Standard
RHNA	Regional Housing Needs Assessment
RMS	root mean square
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SAFE	Solvents/Automotive/Flammables/Electronics
SARA	Superfund Amendment and Reauthorization Act
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	State Candidate for Endangered

SCS	Sustainable Communities Strategies
SCT	State Candidate for Threatened
SE	State listed as Endangered
sf	square feet
SF ₆	sulfur hexafluoride
SFP	State Fully Protected
SLF	Sacred Lands File Search
SOHP	State Office of Historic Preservation
SO ₂	sulfur dioxide
SO ₄	sulfates
SO _x	sulfur oxides
SP	State Protected
SPE	Specific Plan Exception
SPP	Specific Plan Permit
SQMP	Stormwater Quality Management Program
SR	State listed as Rare (plants only)
ST	State listed as Threatened
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminants
TIA	Traffic Impact Analysis
TMDL	Total Maximum Daily Loads
TOD	transit-oriented development
UBC	Uniform Building Code
UNFCCC	United Nations Framework Convention on Climate Change
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
UST	underground storage tank
v/c ratio	Volume-to-Capacity ratio
Vdb	Vibration Magnitude
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WCI	Western Regional Climate Action Initiative
WDID	Water Discharge Identification Number
WHO	World Health Organization
ZAD	Zoning Administrator Determination
ZEV	zero-emission vehicle
ZIMAS	Zone Information and Map Access System
ZV	Zone Variance