Arroyo at Monrovia Station Specific Plan

Draft Environmental Impact Report

SCH No. 2019050016

Volume I

DEIR

.

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1. INTRODUCTION

The City of Monrovia (City) is the Lead Agency and has prepared a Draft Environmental Impact Report (DEIR) for the adoption of the proposed Arroyo at Monrovia Station Specific Plan (Specific Plan, Project). As an informational document, this Draft EIR is intended to be used by the City and other public agency decisionmakers and members of the public in order to understand the potential environmental impacts of the proposed project.

1.1 PROJECT OVERVIEW

Monrovia is located in the San Gabriel Valley region of Los Angeles County. The proposed Project comprises 2.90 acres, an entire 3.03-acre block, except for one 0.137-acre single-family residential parcel (APN 8507-002-013). The block is bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west (Figure 1-1). The existing land uses within the Project area include a mix of light industrial, single-family residential, private surface parking, and a vacant lot. As illustrated on Figure 1-2, the Specific Plan area is located at northwest corner of the City-designated Station Square Transit Village, Monrovia, California.

MW Investment Group, LLC proposes to implement and develop a residential/commercial mixed-use project consistent with the Arroyo at Monrovia Station Specific Plan.

1.2 ENVIRONMENTAL REVIEW PROCESS

Approval of the Specific Plan is defined as a “project” subject to review under the California Environmental Quality Act (CEQA) 1970 (Public Resources Code, Section 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations, Section 15000 et seq.). Accordingly, the City has prepared this EIR to assess the short term, long-range and cumulative environmental consequences that could result from Project development. This EIR has been prepared in accordance with the City’s rules and procedures for implementing CEQA.

The City of Monrovia is the Lead Agency for the preparation of this EIR, as defined by CEQA (Public Resources Code, Section 21067) because the City has primary discretionary authority with respect to adoption, amendment, and implementation of the Arroyo at Monrovia Station Specific Plan. The content of this document reflects the independent judgment of the City.

The body of State Law known as “CEQA” was originally enacted in 1970. The legislative intent is set forth in Section 21000 of the California Public Resources Code:

> “The Legislature finds and declares as follows:
>
> (a) The maintenance of a quality environment for the people of this State now and in the future is a matter of Statewide concern.
>
> (b) It is necessary to provide a high-quality environment that at all times is healthful and pleasing to the senses and intellect of man.

(c) There is a need to understand the relationship between the maintenance of high-quality ecological systems and the general welfare of the people of the State, including their enjoyment of the natural resources of the State.

(d) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.

(e) The capacity of the environment is limited, and it is the intent of the Legislature that the Government of the State take immediate steps to identify any critical thresholds for the health and safety of the people of the State and take all coordinated actions necessary to prevent such thresholds from being reached.

(f) Every citizen has a responsibility to contribute to the preservation and enhancement of the environment.

(g) The interrelationship of policies and practices in the management of natural resources and waste disposal requires systematic and concerted efforts by public and private interests to enhance environmental quality and to control environmental pollution.

(h) It is the intent of the Legislature that all agencies of the State Government which regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, shall regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian."

The Legislature has further declared, in Section 21001, that it is the policy of the State to:

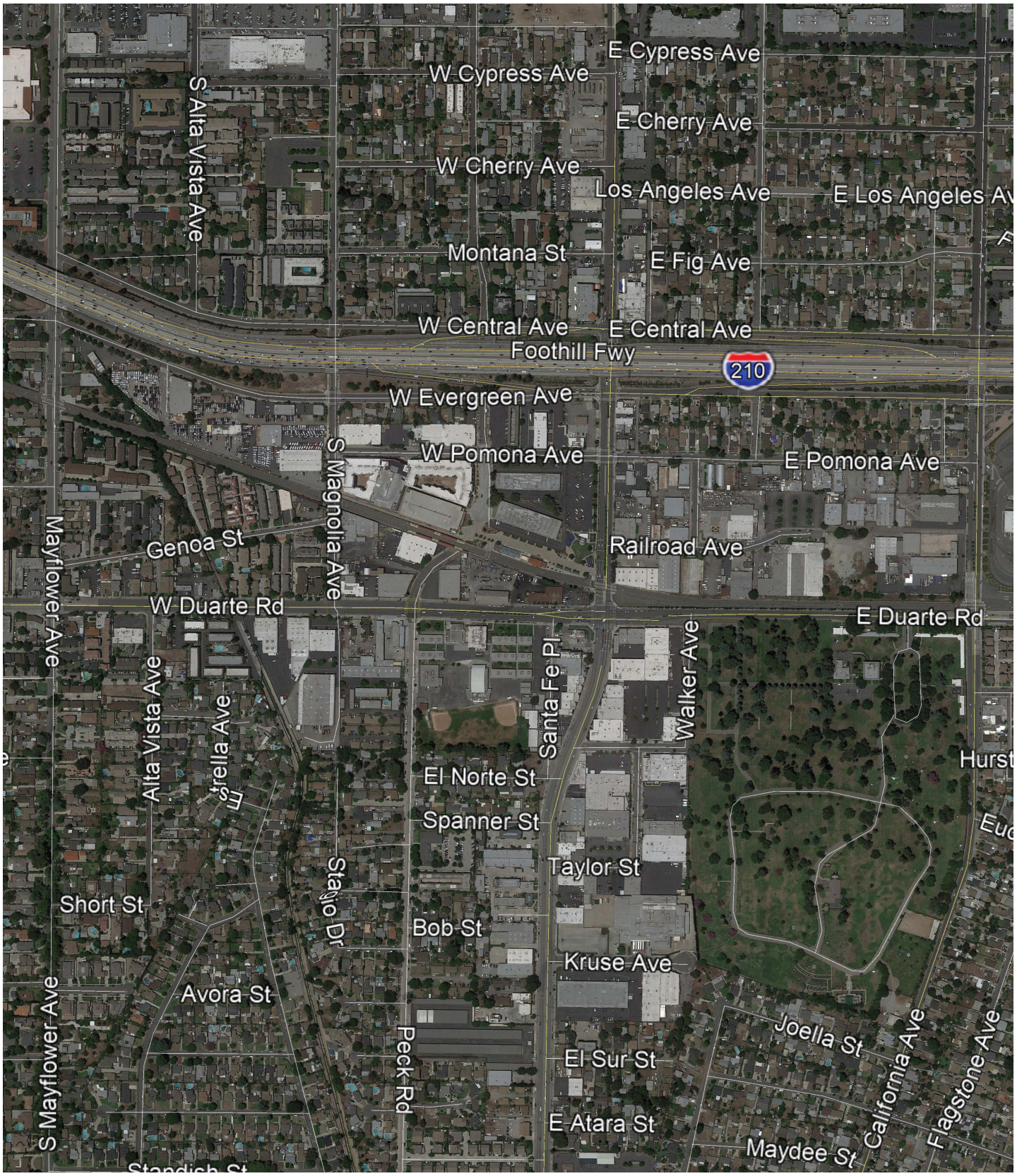
(a) Develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the State.

(b) Take all action necessary to provide the people of this State with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities, and freedom from excessive noise.

(c) Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities and examples of the major periods of California history.

(d) Ensure that the long-term protection of the environment, consistent with the provision of a decent home and suitable living environment for every Californian, shall be the guiding criterion in public decisions.

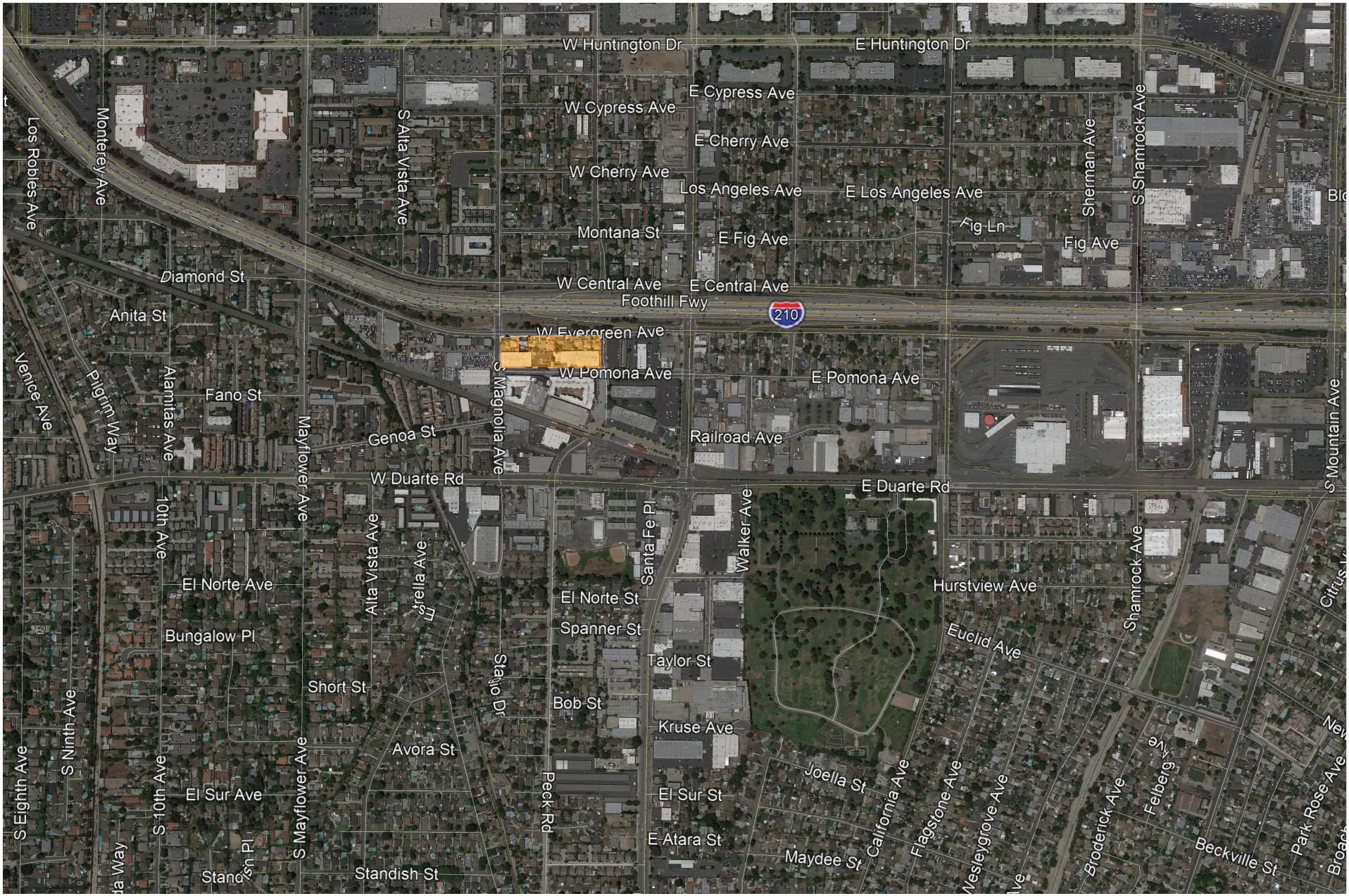
(e) Create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations.



Source: ©2019 Google

Figure 1-1: Project Location

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Station Square Transit Village Boundary

Project Area

Figure 1-2: Station Square Transit Village Boundary

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(f) Require Governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality.

(g) Require Governmental agencies at all levels to consider qualitative factors as well as economic and technical factors and long-term benefits and costs, in addition to short-term benefits and costs and to consider alternatives to proposed actions affecting the environment.

A concise statement of legislative policy, with respect to public agency consideration of projects for approval, is found in Section 21002.

> "The Legislature finds and declares that it is the policy of the State that public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects, and that the procedures required by this division are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will avoid or substantially lessen such significant effects. The Legislature further finds and declares that in the event specific economic, social, or other conditions make infeasible such project alternatives or such mitigation measures, individual projects may be approved in spite of one or more significant effects thereof."

1.3 PURPOSE AND SCOPE

Arroyo at Monrovia Station Specific Plan

A Specific Plan is a policy document that guides the proposed transition and development of an area and is required in Planned Development Zoned neighborhoods. The Arroyo at Monrovia Station Specific Plan is being prepared consistent with the requirements set forth in Article 8, Chapter 3 of the California Government Code. Specifically, the Arroyo at Monrovia Station Specific Plan contains the following required detail:

(1) The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.
(2) The proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan.
(3) Standards and criteria by which development will proceed, and standards for the conservation, development, and utilization of natural resources, where applicable.
(4) A program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out paragraphs (1), (2), and (3).

In addition, the Arroyo at Monrovia Station Specific Plan includes a statement of the relationship of the Specific Plan to the City's General Plan.

1.4 ORGANIZATION OF THE EIR

The Draft EIR is divided into two volumes. Volume 1 contains the primary analysis of potential environmental impacts discussed in the following Sections:

Chapter 1:	Introduction – A review of the overall document
Chapter 2:	Summary – Describes the proposed Project and summarizes Project impacts and mitigation measures
Chapter 3:	Project Description – Provides a detailed description of the proposed Project
Chapters 4 to 20:	Environmental Impact Analysis – Considers proposed Project impacts and identifies mitigation measures for each issue of concern, as applicable
Chapter 21:	Alternatives – Provides an analysis of alternatives to the proposed Project
Chapter 22:	CEQA Mandated Sections – Provides an analysis of cumulative impacts, growth-inducing impacts, and significant irreversible environmental impacts and identifies areas of no significant impact
Chapter 23:	Preparers – Provides a list of professional and qualified consultants responsible for preparing the EIR

Volumes II and III include the EIR appendices, including documentation of the scoping process and Notice of Preparation (NOP). The appendices include:

- Appendix A: Notice of Preparation (NOP)
- Appendix B: NOP Distribution List and Scoping Comments
- Appendix C: Air Quality Impact Analysis
- Appendix D: Biological Resources Assessment Report
- Appendix E: Cultural Resources
- Appendix F: Geotechnical Report
- Appendix G: Hazardous Waste Investigation Reports
- Appendix H: Hydrology & LID Reports
- Appendix I: Noise Study
- Appendix J: Traffic and Circulation
- Appendix K: Utilities Documentation
- Appendix L: Persons and Agencies Contacted
- Appendix M: Plan Set, 3D Renderings, Shade and Shadow Analysis, and View Simulations

In compliance with Public Resources Code Section 21081.6, a Mitigation Monitoring Reporting Program (MMRP) will be prepared as a separate document that will be adopted in conjunction with the certification of the Final EIR. The MMRP, responses to public comments, any revisions to the Draft EIR, and Findings will be identified as Volume 3.

1.5 APPROACH TO EIR ANALYSIS

The approach to the analysis presented in this EIR is project-specific in nature given the scope associated with adoption of the Arroyo at Monrovia Station Specific Plan for the 2.90-acre Project area.

The CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a project-level EIR as defined by Section 15161 of the State CEQA Guidelines. Specifically, Section 15161 of the State CEQA Guidelines indicates that a project-level EIR is the most common type of EIR and examines the environmental impacts of a specific development proposal. This type of EIR focuses primarily on the changes in the environment that could result from the development of a project. The EIR shall examine all phases of the project including planning, construction, and operation. Accordingly, this EIR has been prepared as a project-level EIR and analyzes the specific environmental impacts that could be associated with construction and operation of the proposed the Arroyo at Monrovia Station Specific Plan.

Upon preliminary review, the City determined that the proposed Project could have potential substantial adverse impacts on noise, air quality, and traffic, thus determining that preparation of an EIR would be required for the Project (Section 15060[d]). Each environmental issue is analyzed in the same manner, starting with a discussion of the existing environmental setting, including physical conditions and pertinent planning and regulatory framework. Thresholds of significance are then defined and are used to measure the potential impact to the environment. Thresholds of significance are based on a list of questions and impact topics set forth in Appendix G of the CEQA Guidelines. The impact analysis Section then examines the localized, project-level effects of the Arroyo at Monrovia Station Specific Plan. If the analysis indicates that a significant impact could occur, mitigation measures are provided.

1.6 SCOPING AND PUBLIC REVIEW

To define the scope of the investigation of the EIR, the City distributed a Notice of Preparation (NOP) (included in Appendix A of Volume II of this EIR) to City, County, and State Agencies; other public agencies; and interested private organizations and individuals. The NOP review period ran from May 22, 2019 through June 21, 2019. The purpose of the NOP was to identify agency and public concerns regarding potential impacts of the proposed Project, and to request suggestions concerning ways to avoid significant impacts (Section 15082, CEQA Guidelines).

Five written comments were received during the 30-day public review period for the NOP by Caltrans, South Coast Air Quality Management District (SCAQMD), County Sanitation Districts of Los Angeles County, Native American Heritage Commission, and Legacy Partners. They are included in Appendix B of Volume II of this EIR. Oral comments were received from several members of the public during the meeting. The scoping comments are summarized in Table 1-1 below.

Table 1-1 Summary of Scoping Comments

Commenting Entity	Summary of Comment	Section in EIR where Addressed
Agencies		
Caltrans District 7	Provides feedback on recommended interchanges of interest in the Traffic Study and feedback on the impact analysis methodology and thresholds of significance.	Chapter 19, Transportation and Circulation
South Coast Air Quality Management District (SCAQMD)	Requested electronic copies of all models used in the analyses and a hard copy of the full EIR and Appendices sent to SCAQMD directly.	Mailing of Public Draft EIR
	Requested a Health Risk Assessment due to proximity of Project to Interstate-210.	Chapter 7, Air Quality, and Appendix C
County Sanitation Districts of the Los Angeles County	Estimates the projected wastewater that would be generated by the Arroyo at Monrovia Station Specific Plan using the District's wastewater generation factors and reports the current capacity of the District's nearest sewer main and wastewater treatment plant.	Chapter 20, Utilities
Native American Heritage Commission (NAHC)	Reminder of the Assembly Bill (AB) 52 requirements and process.	City's AB 52 consultation process is summarized in Chapter 9, Cultural Resources
Individuals / Private Organizations		
Legacy Partners	Representing future owners in the MODA apartments just south of the Project, they provided recommendations for construction mitigation measures and highlighted the importance of street trees, underground of utilities, control of trash pickup, and considerations for the mass, bulk, and scale of the development.	Chapter 3, Project Description; Chapters 5, Aesthetics and Visual Resources; Chapter 14, Land Use and Planning; and Chapter 19 Transportation and Circulation

Pursuant to Section 15085 of the State CEQA Guidelines, a Notice of Completion (NOC) was filed with the State Office of Planning and Research (OPR) on September 26, 2019, and the DEIR will be circulated for public and agency review for a period of 45 days ending on November 10, 2019). A copy of the Draft EIR will be posted at the City of Monrovia's Community Development Department at 415 South Ivy Avenue, Monrovia, CA 91016 as well as on the City's Community Development Department website. Copies of the DEIR will be sent to responsible agencies, local agencies, and concerned agencies and individuals, as requested. Public Hearings on the EIR will be held in conjunction with the decision-maker review of the proposed Project.

Comments from all agencies and individuals are invited regarding the information contained in the Draft EIR. Such comments should explain any perceived deficiencies in the assessment of environmental impacts, provide the information that is purportedly lacking in the Draft EIR or indicate where the information may be found. All comments on the Draft EIR are to be submitted to:

Sheri Bermejo, Planning Division Manager
City of Monrovia
Community Development Department
415 South Ivy Avenue, Monrovia CA 91016
sbermejo@ci.monrovia.ca.us

Following a 45-day period of circulation and review of the Draft EIR, all comments and the City's responses to the comments will be incorporated into a Final EIR prior to certification of the document by the City.

1.7 CITATION

Information from many sources, including the appendix materials previously listed and numerous other references were used to conduct the impact analysis in this EIR. Pursuant to Section 15148 of the CEQA Guidelines, citations from the appendix materials and other sources are provided throughout the EIR. Citations are provided in parenthesis when used and are inclusive to each environmental impact topic. References cited are included at the end of each Chapter. Per Section 15150 of the CEQA Guidelines, the Land Use Element of the General Plan for the City of Monrovia (City of Monrovia 2018) and the EIR for revisions to the Land Use and Circulation Elements of the General Plan (City of Monrovia 2008) are incorporated herein by reference.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
AB	Assembly Bill
APN	Assessor Parcel Number
CEQA	California Environmental Quality Act
DEIR	Draft Environmental Impact Report
EIR	Environmental Impact Report
MMRP	Mitigation and Monitoring Reporting Program
NAHC	Native American Heritage Commission
NOC	Notice of Completion
NOP	Notice of Preparation
OPR	Office of Planning Research
PD-12	Planned Development-12
SCAQMD	South Coast Air Quality Management District

References Cited

City of Monrovia
2008 Monrovia General Plan Proposed Land Use and Circulation Elements, Environmental Impact Report (EIR) SCH No. 2007021135. Monrovia, CA. January.
2018 General Plan, Land Use Element. September.

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2. SUMMARY

This EIR chapter provides a summary description of the proposed Project, a list of associated environmental issues to be resolved, a summary of significant impacts and mitigation measures, and a summary of alternatives to the proposed Project (pursuant to CEQA Guidelines Section 15123, Summary).

2.1 PROPOSED PROJECT

Monrovia is in the San Gabriel Valley region of Los Angeles County. The proposed Specific Plan comprises approximately 2.90 acres bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west. The Project comprises the entire block, except for one 0.137-acre single-family residential parcel (Assessor Parcel Number [APN] 8507-002-013) located at 230 W. Evergreen Avenue. The current land uses within the Project area site include light industrial, single family residential, and private surface parking. The site has a General Plan designation of Planned Development – Area 12 (PD-12) and is zoned PD-12 (Planned Development - 12) (corresponding with Planned Development – Area 12).

MW Investment Group, LLC proposes to develop the Arroyo at Monrovia Station Specific Plan (Project). The Specific Plan provides the regulatory framework for the development of a mixed-use community comprising 302 residential units (of which 15 units will be affordable to very low-income households); three units are in a live/work format and six are flex units, with 2,380 square feet of space for live/work non-residential), 7,080 square feet of commercial fixed and commercial flex space, a 500-space parking garage, and open space (see Table 2-1). The Specific Plan establishes the land use regulations, development standards, and design guidelines tailored to achieve goals set forth by the City. A "flex unit" is a space intended for a non-residential, neighborhood-serving use, but may be repurposed into a live/work unit. A range of studios, and one-bedroom and two-bedroom apartments are proposed.

Table 2-1 Unit Floor Plans

	Total Number of Units	Unit Size in Square Feet
Studio	62	554 - 823
One Bedroom	136	706 - 894
Two Bedroom	101	950 – 1,422
Live/Work	3	1,587[1]
Total	**302**	

Notes:
Fifteen Very Low Income affordable units are proposed among the 302 units.
Specific sizes for each unit type are provided in the full proposed plan set, included in Appendix M.
[1] Includes 790 square feet of non-residential space.

The objectives of the Arroyo at Monrovia Station Specific Plan are as follows:

Objective 1. Project the image of Monrovia as an attractive, environmentally sustainable community.

Objective 2. Enhance the Station Square Transit Village by encouraging pedestrian activity, providing public open space and parking, and enhancing landscaping.

Objective 3. Redevelop the project site to cluster high-density housing opportunities where transit and other amenities are readily available, thus capitalizing on and enhancing the Station Square Transit Village synergy.

Objective 4. Accommodate sustainable site and architectural design that implements the latest California Green Building and Green Energy Codes, allows for alternative vehicle fueling facilities, implements the City's storm water management programs, and uses water conservation landscaping techniques consistent with the City's regulations.

Objective 5. Provide attractive housing that offers a suite of residential amenities and increases Monrovia's housing options, including affordable housing for very low-income households.

Objective 6. Increase retail and commercial space in the Station Square Transit Village.

Objective 7. Provide public automobile parking and bicycle parking for the public and for residents.

Implementation of the proposed Project would require the following City actions:

- Certification of the Final Environmental Impact Report;
- Adoption of a Mitigation Monitoring and Reporting Program;
- Adoption of the Arroyo at Monrovia Station Specific Plan;
- Approval of a Vesting Tentative Tract Map for the consolidation of twelve parcels into one;
- Approval of a Conditional Use Permit (CUP) to construct the development;
- A General Plan Conformity Finding for the dedication of public right-of-way, and
- Adoption of a Zone Map Amendment and Municipal Code Amendment to add the Arroyo at Monrovia Station Specific Plan to the Zoning Map and Section 17.04.035 of the Monrovia Municipal Code.

2.2 ENVIRONMENTAL ISSUES

As required by the CEQA Guidelines, this EIR addresses the following areas of potential environmental impact or controversy known to the Lead Agency (the City), including those issues and concerns identified by the City and other agencies, organizations, and individuals during circulation of the Notice of Preparation (NOP) for this EIR (dated May 22, 2019). These environmental concerns relate to the following topics (listed in the order that they are addressed in this EIR):

- Aesthetics and Visual Resources;
- Agriculture and Forestry Resources;
- Air Quality;

- Biological Resources;
- Cultural and Tribal Cultural Resources;
- Geology and Soils;
- Global Climate Change and Greenhouse Gas;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Mineral Resources;
- Noise;
- Population and Housing;
- Public Services and Recreation;
- Transportation and Circulation; and
- Utilities and Service Systems.

2.3 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

For each of the environmental topics listed above, any "significant" project or cumulative impact and associated Mitigation Measure or Measures identified in this EIR are summarized in Table 2-2 below. More detailed impact discussions are contained in Chapters 5 through 20 of this EIR. The chart is arranged in five columns: (1) identified impacts; (2) recommended Mitigation Measures; (3) significance without mitigation; and (4) the level of impact significance after implementation of the Mitigation Measure(s).

Table 2-2 Summary of Impacts and Recommended Mitigation Measures

Impacts	Mitigation Measures and Standard Conditions	Significance Without Mitigation	Significance With Mitigation
Aesthetics and Visual Resources			
Impact AES-1 Impacts on Scenic Vistas	NA	LS	NA
Impact AES-2 Impacts on Scenic Resources	NA	LS	NA
Impact AES-3 Impacts on Visual Character	**MM AES-1: Maintenance of Construction Barriers.** Prior to issuance of any construction permits, the City of Monrovia (City) Community Development Director, or designee, shall verify that all construction plans include the following note: "During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours." **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Community Development staff shall conduct periodic site inspections during construction.	S	LS
Impact AES-4 Light and Glare	**MM AES-2:** Reflective glass, metallic, and other highly reflective and glare producing materials, shall not be used in new building construction. **Requirements and Timing:** Materials shall be reviewed and approved of prior to issuance of building permits. Approved materials shall be printed on all construction drawings. **MM AES-3: Comprehensive Lighting Plan.** Prior to issuance of a building permit, the applicant shall submit a comprehensive lighting plan for review and approval by the City Community Development Director, or designee. The lighting plan shall be prepared by a qualified engineer (i.e.,	S	LS

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NA = Not applicable

	an engineer who is an active member of the Illuminating Engineering Society of North America [IESNA]) and shall be in compliance with applicable standards of the City's Municipal Code. The lighting plan shall address all aspects of lighting, including infrastructure, onsite driveways, recreation, safety, signage, and promotional lighting, if any. The lighting plan shall include the following in conjunction with other measures, as determined by the illumination engineer: • Exterior onsite lighting shall be shielded and confined within site boundaries. • No direct rays or glare are permitted to shine onto public streets, freeways or adjacent sites. • Lighting fixtures that blink, flash, or emit unusual high intensity or brightness shall not be permitted. • The site shall not be excessively illuminated based on the illumination recommendations of the IESNA **Requirements and Timing**: The Lighting Plan shall be reviewed and approved prior to issuance of building permits. **Monitoring**: The City's Community Development Director, or designee, shall review and approve the Lighting Plan prior to issuance of building permits.		
Air Quality			
Impact AIR-1 Consistency with the SCAQMD AQMP	NA	LS	NA
Impact AIR-2 Result in Cumulatively Considerable Increase in Criteria Pollutants	**SC AIR-1:** Comply with South Coast Air Quality Rule 1113 to reduce VOC emissions from architectural coating applications. Prior to the issuance of a building permit for the development, the applicant shall submit, to the satisfaction of the Planning Division, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines. The applicant shall include in any construction contracts and/or subcontracts a requirement that contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in construction meet the SCAQMD "super compliant" coating VOC content standard of	S	LS

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	less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low pressure spray guns during coating applications to reduce coating waste. **Requirements and Timing**: Applicant shall receive Community Development Department (Planning and Building Division's) approval of a Coating Restriction Plan (CRP) prior to receipt of building permits. **Monitoring**: City Planning staff shall conduct site inspections to ensure that the CRP is followed during construction. **MM AIR-1: Idling Restrictions.** Idling of diesel-powered vehicles and equipment shall not be permitted during periods of non-active vehicle use. Diesel-powered engines shall not be allowed to idle for more than 5 consecutive minutes in a 60-minute period when the equipment is not in use, occupied by an operator, or otherwise in motion, except as follows: • When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control; • When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment; • To bring the equipment to the manufacturer's recommended operating temperature; • When the ambient temperature is below 40 degrees F or above 85 degrees F; or • When equipment is being repaired. **Requirements and Timing:** Mitigation measure shall be printed on construction drawings and included as a requirement in the construction contract. **Monitoring:** City Planning staff shall conduct site inspections during construction to ensure that the mitigation measure is adhered to. **SC AIR-2:** Comply with South Coast Air Quality Management District Rule 403, Fugitive Dust, by incorporating best available control measures during construction. **Requirements and Timing**: Standard condition shall be printed on construction drawings and included as a requirement in the construction contract. **Monitoring**: City Planning staff shall conduct site inspections during construction to ensure that the standard condition is adhered to.		

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	SC AIR-3. Natural Gas Fireplaces. All residential fireplaces installed shall be fueled by natural gas. Wood stoves and wood burning fireplaces shall be prohibited. (Consistent with General Plan EIR Mitigation Measure AIR-D). **Requirements and Timing**: Standard condition shall be printed on construction drawings. **Monitoring**: City Planning staff shall conduct site inspections during construction to confirm condition is adhered to.		
Impact AIR-3 Exposure of Sensitive Receptors to Substantial Pollutant Concentrations	**MM AIR-2:** For all new residential units in the Project area, the developer shall install, and owner maintain, HVAC systems with air filters meeting or exceeding the most current California Building Standards Code ASHRAE Standard 52.2 Minimum Efficiency Rating Value (MERV) requirement. Air filters shall be replaced at a minimum of two times per year, or more, as needed, by the owner. **Requirements and Timing**: This measure shall be printed on construction drawings and included as a requirement of the construction contract for new residential buildings. This measure shall also be recorded in a Notice to Property Owner, which shall be provided to all occupants of the Arroyo at Monrovia Station Specific Plan units. **Monitoring**: City staff shall confirm that HVAC units and MERV-rated filters are installed in accordance with this measure prior to final sign off on construction for all new residential units. City staff shall also review and approve of the Notice to Property Owner language and ensure recordation prior to final sign-off on construction of new residential units in the Project area.	S	LS
Impact AIR-4 Odors	NA	LS	NA
Biological Resources			
Impact BIO-1 Nesting Birds	**MM BIO-1: Nesting Bird Protection.** If vegetation removal is scheduled during the nesting season (typically February 1 to September 1), then a focused survey for active nests shall be conducted by a qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) no more than five (5) days prior to the beginning of excavation, grading and/or vegetation removal. Surveys shall be conducted in proposed work areas, staging and storage areas, along equipment transportation routes, and soil, equipment, and material stockpile areas.	S	LS

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	For passerines and small raptors, surveys shall be conducted within a 250-foot radius surrounding the work area (in non-developed areas and where access is feasible). For larger raptors, such as those from the genus Buteo, the survey area shall encompass a 500-foot radius. Surveys shall be conducted during weather conditions suited to maximize the observation of possible nests and shall concentrate on areas of suitable habitat. If a lapse in Project-related work of five (5) days or longer occurs, an additional nest survey shall be required before work can be reinitiated. If active nests are found during any preconstruction survey, a qualified biologist shall establish an appropriate buffer between the nest and active construction. The qualified biologist shall clearly mark the established buffer. The Project proponent shall maintain the buffer until young have fledged and are foraging independently. The qualified biologist shall document pre-construction baseline monitoring of the nest to characterize "normal" bird behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and shall increase the buffer if birds are showing signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and flying away from the nest). If this is not possible, work shall cease in the area until young have fledged and the nest is no longer active (e.g. young have fledged, predation, or other non-anthropogenic nest failure). **Requirements and Timing**: Measure shall be printed on all construction drawings. **Monitoring**: City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.		
Impact BIO-2 Potential Adverse Effects on Jurisdictional Waters	NA	LS	NA
Impact BIO-3 Impact on Sensitive Natural Vegetation Communities	NA	LS	NA
Impact BIO-4 Impact on Wildlife Corridors	NA	LS	NA
Impact BIO-5 Impact on Other Special-Status Species	NA	LS	NA

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Impact BIO-6 Conflict with Local Policies or Ordinances or Conservation Plans	NA	LS	NA
Cultural Resources and Tribal Cultural Resources			
Impact CUL-1 Historic Structures	NA	LS	NA
Impact CUL-2 Archaeological Resources	**MM CUL-1. Conduct Archaeological Sensitivity Training for Construction Personnel.** The applicant shall retain a qualified professional archaeologist who meets U.S. Secretary of the Interior's Professional Qualifications and Standards to conduct an archaeological sensitivity training for construction personnel prior to commencement of excavation activities. The training session shall include a handout and focus on how to identify archaeological resources that may be encountered during earthmoving activities; the procedures to be followed in such an event, the duties of archaeological monitors, and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation, if one is necessary. **Requirements and Timing:** Measure shall be printed on all construction drawings. The archaeologist shall obtain signatures from each worker receiving the training and shall submit the list to the City following completion of construction. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to. **MM CUL-2. Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered.** If archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities will not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards.	S	LS

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	Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals shall be contacted and consulted, and Native American construction monitoring shall be initiated. The applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. **Requirements and Timing**: Measure shall be printed on all construction drawings. **Monitoring**: City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to. **MM CUL-3. Conduct Periodic Archaeological Resources Spot Checks during grading and earth-moving activities in Younger Alluvial Sediments.** The applicant shall retain a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards to conduct periodic Archaeological Spot Checks beginning at depths below three (3) feet to determine if construction excavations have exposed or have a high probability of exposing archaeological resources. After the initial Archaeological Spot Check, further periodic checks will be conducted at the discretion of the qualified archaeologist. If the qualified archaeologist determines that construction excavations have exposed or have a high probability of exposing archaeological artifacts, ongoing construction monitoring for archaeological resources shall be required. For the ongoing monitoring, the applicant shall retain a qualified archaeological monitor and Native American monitor, who will work under the guidance and direction of a professional archaeologist, who meets the qualifications set forth by the U.S. Secretary of the Interior's Professional Qualifications and Standards. The archaeological monitor and Native American monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into non-fill younger Pleistocene alluvial sediments. Multiple earth-moving construction activities may require multiple archaeological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (native versus artificial fill soils), the depth of excavation, and if found, the abundance		

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	and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections as directed by the Project archaeologist. **Requirements and Timing**: Measure shall be printed on all construction drawings. **Monitoring**: City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to. **MM CUL-4. Prepare Report Upon Completion of Monitoring Services.** The archaeological monitor, under the direction of a qualified professional archaeologist who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards, shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted to the applicant, the South Central Coastal Information Center, the City, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and compliance with required mitigation measures. The report shall include a description of resources unearthed, if any, evaluation of the resources with respect to the California Register and CEQA, and treatment of the resources. **Requirements and Timing**: Measure shall be printed on all construction drawings. An archaeological monitoring report shall be prepared and submitted for City review and approval prior to final sign off on construction. **Monitoring**: City Planning staff shall review and approve the archaeological monitoring report prior to final sign off on construction.		
Impact CUL-3 Human Remains	**MM CUL-5. Cease Ground-Disturbing Activities and Notify County Coroner If Human Remains Are Encountered.** If human remains are unearthed during implementation of the Project, the City of Monrovia and the applicant shall comply with State Health and Safety Code Section 6050.5. The City of Monrovia and the applicant shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). After the MLD has inspected the remains and the site, they have 48 hours to recommend to the landowner the treatment and/or disposal, with appropriate dignity, of	S	LS

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	the human remains and any associated funerary objects. Upon the reburial of the human remains, the MLD shall file a record of reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SCCIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance. **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.		
Impact CUL-4 Tribal Cultural Resources	Refer to mitigation measures MM CUL-1 through MM CUL-5.	S	LS
Geology and Soils			
Impact GEO-1 Seismic Hazards	**MM GEO-1**. Prior to the issuance of grading and building permits for the proposed development, the applicant shall retain a California registered and licensed geotechnical engineer to prepare a Geotechnical Report to provide construction and design recommendations for the proposed facilities to withstand probable seismically induced ground shaking. The Geotechnical Report shall provide specific recommendations for structural foundations and specifications and procedures for grading, including the suitability of onsite materials for use as fill. All grading, drainage, and building plans shall include all recommendations of the final Geotechnical Report for the development. **Requirements and Timing:** The Geotechnical Report shall be reviewed and approved by the City Department of Public Works prior to issuance of grading and permits. In addition, the geotechnical engineers for the development shall sign a title block on the grading, drainage, and building plans stating that the recommendations of the development's Geotechnical Report have been followed in the approved plans that he or she is signing. **Monitoring:** City Department of Public Works staff shall review and approve of the	S	LS

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	Geotechnical Report, and that grading, drainage, and building plans are signed by the geotechnical engineer, prior to issuance of grading and building permits.		
Impact GEO-2 Erosion	NA	LS	NA
Impact GEO-3 Landslides, Subsidence, and Liquefaction	NA	LS	NA
Impact GEO-4 Expansive Soils	NA	LS	NA
Impact GEO-5 Septic Tanks or Alternative Wastewater Disposal	NA	LS	NA
Impact GEO-6 Paleontological Resources	**MM GEO-2. Conduct Paleontological Sensitivity Training for Construction Personnel.** The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training shall include a handout and shall focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary. **Requirements and Timing**: This measure shall be printed on all grading and construction drawings. The paleontologist shall obtain signatures from each worker receiving the training and shall submit the list to the City following completion of construction. **Monitoring**: City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to. **MM GEO-3. Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities**. The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below six feet to	S	LS

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	determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks shall be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources shall be required. The applicant shall retain a qualified paleontological monitor, who work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth- moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if directed by the qualified professional paleontologist. **Requirements and Timing**: This measure shall be printed on all grading and construction drawings. **Monitoring**: City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to. **MM GEO-4. Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered.** If paleontological resources and/or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the City. Work shall be allowed to continue outside of the buffer area. The applicant and City shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment		

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	plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. **Requirements and Timing**: This measure shall be printed on all grading and construction drawings. **Monitoring**: City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to. **MM GEO-5. Report Upon Completion of Monitoring Services.** Upon completion of the above activities, the professional paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted to the applicant, the City, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures. **Requirements and Timing**: This measure shall be printed on all grading and construction drawings. An archaeological monitoring report shall be prepared and submitted for City review and approval prior to final sign off on construction. **Monitoring**: City Planning staff shall review and approve the archaeological monitoring report prior to final sign off on construction.		
Global Climate Change, Greenhouse Gases, and Energy			
Impact GHG-1 Generation of Greenhouse Gas Emissions	NA	LS	NA
Impact GHG-2 Plan Consistency	NA	LS	NA
Impact GHG-3 Energy Consumption	NA	LS	NA
Impact GHG-4 Conflict with Renewable Energy Plans	NA	LS	NA

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Hazards and Hazardous Materials			
Impact HAZ-1 Hazardous Materials Management	NA	LS	NA
Impact HAZ-2: Hazardous Waste	**MM HAZ-1**: The DTSC shall be notified of the results of all Phase I Environmental Site Assessments (ESAs), Phase II (ESAs), and Human Health Risk Assessments prepared for the Project site. The Applicant/Developer shall comply with all requirements of DTSC for remediation of the portions of the Project site that are subject to CERCLA or California Health and Safety Code Division 20, Chapter 6.8 including, without limitation, requirements of any remediation plan or agreement and the requirement to install a vapor barrier, and the timing established by DTSC for such remediation. **Requirements and Timing:** The remediation measures specified above shall be performed in accordance with any plan or agreement that has been approved by DTSC, including work that is to be performed prior to or in conjunction with grading and/or demolition in the portions of the development subject to CERCLA or California Health and Safety Code Division 20, Chapter 6.8, as required by DTSC. **Monitoring:** Prior to issuance of grading and/or demolition permits, City Planning shall be provided with any approved plan or agreement for remediation of the project site, along with documentation of DTSC's approval of the plan or agreement. Prior to the issuance of a certificate of occupancy for any structure on the property, City Planning shall be provided with documentation that all remediation actions, which are required to be implemented by the approved plan or agreement, if any, have been implemented in accordance with the approved plan or agreement and that DTSC has signed off on any such required remediation. **MM HAZ-2:** Prior to issuance of permits for demolition of structures older than 1950 in the Project area, a survey for lead-based paint (LBP) and a survey for asbestos containing material (ACM) shall be performed. Prior to issuance of demolition permits, copies of the survey report(s) and all notifications submitted to the South Coast Air Quality Management District (SCAQMD) of the proposed demolition and any response from SCAQMD	S	LS

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SU = Significant and unavoidable impact
NA = Not applicable

	shall be provided to City Planning. **Requirements and Timing:** LBP and ACM survey reports shall be submitted to City Planning prior to issuance of demolition permits along with copies of all notifications that have been provided to SCAQMD and any response from SCAQMD, including any abatement actions that are being required by SCAQMD. Documentation of performance of any abatement actions that are required to be performed prior to the issuance of demolition permits and signoff by the SCAQMD, also shall be provided to City Planning prior to the issuance of demolition permits by the City. **Monitoring:** City Planning staff shall require receipt of LBP and ACM reports and shall confirm notifications have been sent to the SCAQMD prior to issuance of demolition permits. City Planning staff shall confirm that the SCAQMD has signed off on any abatement activities that are required to be completed prior to demolition and that such requirements have been completed and signed off by SCAQMD prior to issuance of City permits for demolition. Documentation of completion of any abatement actions required by SCAQMD, which are required to be performed concurrently with demolition and sign off by SCAQMD, shall be provided to City Planning prior to the issuance of a certificate of occupancy by the City.		
Hydrology and Water Quality			
Impact HYD-1 Surface Hydrology and Water Quality	**SC HYD-1:** Based upon the requirements of the City's Stormwater Management Ordinance, Monrovia Municipal Code Section 12.36, and the Los Angeles County Municipal Storm Water National Pollutant Discharge Elimination System (MS4 NPDES) Permit issued by California Regional Water Quality Control Board, Los Angeles Region, the following shall be incorporated into the Project application: ▪ Minimize impacts from storm water runoff on the biological integrity of natural drainage systems and water bodies in accordance with requirements under the California Environmental Quality Act (California Public Resources Code Section 21100), Section 13369 of the California Water Code, Sections 319, 402(p), and 404 of the Clean Water Act, Section 6217(g) of the Coastal Zone Act Reauthorization Amendments, Section 7 of the Environmental Protection Act, and local governmental ordinances.	LS	NA

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	▪ Maximize the percentage of permeable surfaces to allow more percolation of storm water into the ground. ▪ Minimize the amount of storm water directed to impermeable surfaces. ▪ Minimize pollution emanating from parking lots through the use of appropriate treatment control using best management and good housekeeping practices. ▪ The applicant shall integrate Best Management Practices to ensure compliance with NPDES guidelines and the City's Stormwater Management Ordinance, MMC 12.36 to the satisfaction of the City Engineer, prior to the issuance of the grading permit. The design, implementation, construction activities and maintenance of the management devices shall mitigate and reduce pollutants in storm water discharges to the maximum extent practicable and shall be identified as on a "site specific mitigation plan." Site Specific Mitigation Plan must specifically address and provide best management practices (BMPs) either structural or non-structural to mitigate pollutants. ▪ The applicant shall conduct annual maintenance inspections by the manufacturer or by a City approved inspector of all structural and/or treatment control storm water devices by following best management practices which shall also verify the legibility of all required stencils and signs which shall be repainted and labeled as necessary. Proof of such inspection shall be retained by the Applicant and a copy submitted to the City of Monrovia on a yearly basis.		
Impact HYD-2 Flooding and Other Hydrologic Hazards	NA	LS	NA
Land Use and Planning			

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Impact LUP-1 Physically Divide an Established Community	NA	LS	NA
Impact LUP-2 Conflict with any Applicable Land Use Plan, Policy, or Regulation	NA	LS	NA
Noise and Vibration			
Impact NOI-1: Exposure to or Generation of Noise Levels that Exceed Standards	**MM NOI-1: Confirm Compliance with Applicable Interior Noise Standard Requirements.** Prior to the issuance of a building permit for any development in the project area, the City shall review and approve a Title 24 acoustical analysis, prepared by or on behalf of the applicant, and based on the final project design, that: 1. Confirms exterior noise levels at all exterior building façade locations and exterior recreation areas, including open space areas, patios, and roof deck; and 2. Confirms the final site and building design features that would: a) Reduce exterior noise levels at open space areas, patios, and roof deck areas to less than 75 Community Equivalent Noise Level (CNEL) (e.g., plexiglass or other screening walls); and b) Attenuate exterior building façade noise levels to interior levels that do not exceed 45 CNEL in habitat rooms and 50 dBA equivalent continuous sound level (Leq) (1-hour) in other occupied rooms. Potential noise insulation site and building design features capable of achieving this requirement may include, but are not limited to: • Sound barriers • Enhanced exterior wall construction/noise insulation design • Use of enhanced window, door, and roof assemblies with above average sound transmission class (STC) or outdoor/indoor transmission class (OITC) values • Use of mechanical, forced air ventilation systems to permit a windows closed condition in residential units.	S	LS

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	Requirements and Timing: An acoustical report shall be submitted to Community Development Department (Planning and Building Divisions) for review and approval prior to the issuance of a certificate of occupancy or final sign off on construction, documenting that actual interior and exterior noise level at the locations indicated in this measure meet City and State standards. **Monitoring**: Community Development Department (Planning and Building Divisions) staff shall approve the acoustical analysis prior to the issuance of building permits.		
Impact NOI-2: Substantial Permanent Increases in Ambient Noise Levels	**MM NOI-2: Reduce On-Site Noise Levels at Single-Family Residence (230 West Evergreen Avenue).** To reduce potential noise levels from the Project's recreational open space and amenity facilities at the residence at 230 West Evergreen Avenue, the applicant shall: 1) Provide additional information, confirming that the final approved site design, which indicates noise levels at the property at 230 West Evergreen Avenue would not exceed City standards contained in Chapter 9.44 of the Municipal Code which may be in the form of a letter from an acoustical consultant documenting noise levels at that property; or 2) Install a sound wall along the shared property lines with the residence at 230 West Evergreen Avenue. The height of the sound wall shall reach a minimum of 8 feet above the finished grade of the recreational open space, and may be constructed of any solid material, provided the material has a minimum transmission loss value of 20 dBA (which would reduce noise levels from the recreation open space on the property at 230 West Evergreen Avenue by at least 10 dBA). The wall design shall be free of gaps and openings through which noise may pass and reduce the effectiveness of the wall. **Plan Requirements and Timing:** The additional information regarding the final noise levels, or final wall design, shall be submitted to City Planning for review and approval prior to issuance of building permits. **Monitoring:** City Planning staff shall approve of additional information prior to issuance of building permits.	S	LS

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Impact NOI-3: Substantial Temporary or Periodic Increases in Ambient Noise Levels	**MM NOI-3: Reduce Temporary Construction Noise Levels.** To reduce temporary construction noise impacts on adjacent land uses, including the house located at 230 West Evergreen Avenue, the applicant or the applicant's construction contractor shall implement the following construction-period noise abatement measures: • *Construction Activity Notification.* All residential units located within 500 feet of the construction site shall be sent a notice regarding the construction schedule for the proposed development. A sign, legible at a distance of 50 feet shall also be posted at the construction site. All notices and signs shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can enquire about the construction process and register complaints. • *Noise Disturbance Coordinator.* A "noise disturbance coordinator" shall be established by the applicant. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator. *Construction Traffic.* Route all construction traffic to and from the construction site via designated truck routes to the maximum extent feasible. Prohibit construction-related heavy truck traffic in residential areas where feasible. *Equipment Noise Controls:* The applicant and/or its construction contractor shall implement the following equipment noise control measures during all phases of construction: o *Mufflers*. All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields). o *Equipment Selection.* Grading and construction contractors shall use quieter equipment as opposed to noisier equipment	S	S

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	(such as rubber-tired equipment rather than track equipment), to the maximum extent feasible. o *Provide Electric Hook-Ups.* Electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load. • *Temporary Barriers.* During all demolition and construction activities, one or more physical barriers capable of achieving a 15 dBA reduction in predicted construction noise levels shall be installed between construction work areas and the residence at 230 West Evergreen Avenue. A physical barrier capable of achieving a 15 dBA reduction in predicted construction noise levels shall also be installed along the Project area's southern boundary during all demolition, site preparation, grading, and excavation activities. The barrier shall be a minimum of 12-feet tall. Potential options for achieving this level of attenuation would include, but are not limited to: o A concrete, wood, or other barrier installed at-grade (or mounted to structures located at-grade, such as K-Rails) along the Project property line. Such a wall/barrier shall consist of material that has a minimum rated transmission loss value of 25 dB (or equivalent rating) and shall contain no gaps in the structure through which noise may pass. o Commercially available acoustic panels or other products such as acoustic barrier blankets shall be installed along the Project property line, building envelope and at or near sensitive residential receptor areas. o Any combination of noise barriers and commercial products capable of achieving a 15-dB reduction in construction noise levels at sensitive receptor locations. • *Construction Sequencing:* Construction activities shall be scheduled to limit the total amount of time that work occurs within approximately 150 feet of the residence at 230 West Evergreen Avenue. Construction activities shall be sequenced to take advantage of shielding provided by proposed on-site barriers (see mitigation measure MM NOI-2) and buildings (e.g., construct		

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	buildings closest to the receptor at 230 West Evergreen Avenue first to provide shielding between the receptor and activities elsewhere in the project site). • *Temporary Relocation of Receptor at 230 West Evergreen Avenue.* The occupant(s) of the property at 230 West Evergreen Avenue shall be offered the option to temporarily relocate to off-site accommodations during all demolition, earthmoving, excavation, and other construction activities occurring within 150 feet of the residence at 230 West Evergreen Avenue at the applicant's expense. If such relocation services are accepted by the occupants, a construction sound wall shall not be required for the property at 230 West Evergreen Avenue because this location would no longer occupied by a sensitive receptor. **Plan Requirements and Timing:** This measure shall be printed on all construction drawings and included in construction contracts. **Monitoring:** City Community Development staff shall ensure that this measure is located on final construction drawings. City Community Development staff shall conduct inspections during construction to ensure that measures are implemented.		
Impact NOI-4: Expose People to or Generate Excessive Groundborne Vibration or Noise	NA	LS	NA
Impact NOI-5: Airport-related Noise Levels	NA	LS	NA
Population and Housing			
Impact POP-1: Induce Substantial Unplanned Population Growth	NA	LS	NA
Impact POP-2: Displace People or	NA	LS	NA

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Housing			
Public Services and Recreation			
Impact PS-1: Fire Services	**SC PS-1:** The Project applicant shall pay a fire impact fee, as required by Municipal Code Section 3.46.040, Schedule of Fees and Service Charges. This fee shall either be paid directly to the City prior to the issuance of building permits or be incorporated into the overall Communities Facilities District (CFD) fee to be paid by the applicant, as established by the City of Monrovia and to the satisfaction of the City. **Requirement and Timing**: Development impact fee- shall be paid prior to issuance of building permits. **Monitoring**: City Community Development (Planning and Building Divisions) staff shall confirm payment of development impact fees prior to issuance of building permits.	LS	LS
Impact PS-2: Police Services	LS	LS	LS
Impact PS-3: School Services	**SC PS-2:** Prior to the issuance of building permits, the Project applicant shall pay school facility development impact fees to the Monrovia Unified School District. Proof of payment shall be provided to the City of Monrovia. **Requirement and Timing:** Development impact fee shall be paid prior to issuance of building permits. **Monitoring:** City Community Development (Building and Planning Divisions) staff shall confirm payment of development impact fees prior to issuance of building permits.	LS	LS
Impact PS-4 Parks and Recreation	**MM PS-1:** Parkland Dedication Fee: The applicant shall pay an in-lieu park impact fee to provide for parkland resources consistent with General Plan policy of three acres of parkland per 1,000 residents. This fee either shall be paid directly to the City or shall be incorporated into a Community Facilities District fee to be paid by the applicant. **Requirement and Timing:** The in-lieu fee shall be paid to the City, or the establishment of the CFD along with the approval of the special tax set at the amount established by the City shall occur prior to issuance of building permits. **Monitoring:** City Community Development (Building and Planning Divisions) staff shall	S	LS

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	confirm payment of the in-lieu fee or the establishment of the CFD and the approval of the special tax prior to issuance of building permits.		
Impact PS-5 Library Services	NA	LS	NA
Impact PS-6 Wildfire Management	NA	LS	NA
Transportation and Circulation			
Impact T-1 The Arroyo at Monrovia Station Project Intersection Analysis	NA	LS	NA
Impact T-2 The Arroyo at Monrovia Station Project Ramp Intersection Analysis	NA	LS	NA
Impact T-3 The Arroyo at Monrovia Station Project Freeway Segment Analysis	NA	LS	NA
Impact T-4 Off-Ramp Queuing Analysis	NA	LS	NA
Impact T-5 Alternative Mobility Modes	NA	LS	NA
Impact T-6 Consistency with CEQA Guidelines Section 15064.3(B)	NA	LS	NA
Impact T-7 Hazards and Emergency Access	NA	LS	NA
Utilities and Service Systems			
Impact UT-1 Wastewater Collection and Treatment	**MM UT-1.** Prior to issuance of building permits or the approval of a final map, whichever occurs first, the applicant shall agree to the conditions as outlined herein and provide the following: a) provide a "Can and Will Serve" letter by the City of Monrovia's Department of Public Works to provide wastewater service to the development indicating the feasibility and conditions of providing service to the development, and b) identify and show on the site plans and tentative map the proposed layout and design	S	LS

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	of the development and how it will accomplish City Department of Public Works' conditions of approval for the development. **Requirements and Timing:** A Can and Will serve letter for wastewater service shall be obtained prior to issuance of building permits or approval of a final map, whichever occurs first. **Monitoring:** City Planning staff shall confirm issuance of the Can and Will Serve letter for wastewater service prior to issuance of building permits or approval of a final map, whichever occurs first.		
Impact UT-2 Water Supply	**MM UT-2.** The applicant for development shall pay their fair share in lieu fees for completion of upgrades to the nearby water system to support the development. Improvements will include the addition of one booster pump and upgrade of 980 feet of pipeline along Magnolia Avenue between Duarte Road and Evergreen Avenue. **Requirement and Timing:** In lieu fees shall be paid prior to issuance of building permits. **Monitoring:** City Planning staff shall confirm payment of in lieu fees prior to issuance of building permits. **MM UT-3.** Prior to issuance of building permits or the approval of the final map, whichever occurs first, the applicant shall agree to the conditions as outlined herein and provide the following: a) provide a "Can and Will Serve" letter by the City of Monrovia's Department of Public Works to provide water service to this development indicating the feasibility and conditions of providing service to the development, and b) identify and show on the site plans and tentative map the proposed layout and design of the development and how it will accomplish City Department of Public Works' conditions of approval for the development. **Requirements and Timing:** A Can and Will serve letter for water service shall be obtained prior to issuance of building permits or approval of the final map, whichever occurs first. **Monitoring:** City Planning staff shall confirm issuance of the Can and Will Serve letter for water service prior to issuance of building permits or approval of the final map, whichever occurs first.	S	LS
Impact UT-3 Solid Waste	**SC UT-1:** As applicable, the applicants shall comply with the City of Monrovia Construction and Demolition (C&D) Disposal and Recycling Program. The Program includes submitting a C&D Recycling Program	LS	LS

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	Permit Application and a Waste Management Plan to the Public Works Department Environmental Services Division and diverting 50 percent of the total construction and demolition debris generated by the Project. **Requirements and Timing**: Applicants shall submit Waste Management Plans to the City Department of Public Works Environmental Services Division for review and approval prior to issuance of demolition permits. The Waste Management Plan shall be implemented and adhered to throughout demolition and construction. **Monitoring**: City Department of Public Works Environmental Services Division shall review and approve of Waste Management Plans prior to issuance of demolition permits; City Planning staff shall confirm approval of the Waste Management Plan prior to issuance of demolition permits and shall confirm compliance with the Waste Management Plan prior to sign off on construction.		

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2.4 SUMMARY OF ALTERNATIVES

To provide a basis for further understanding of the environmental effects of a proposed project and possible approaches to reducing its identified significant impacts, the CEQA Guidelines require an EIR to also "…describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Chapter 21 identifies and evaluates the following alternatives to the Project:

2.4.1 Identified Alternatives

Alternative 1: No Project Alternative

According to Section 15126.6(e)(2) of the CEQA Guidelines, the evaluation of alternatives in an EIR shall include a "no project" scenario. A "no project" scenario consists of the existing physical setting and "...what is reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

Under this alternative, the Arroyo at Monrovia Station Specific Plan would not be adopted. The project area would continue with a land use designation of Planned Development Area - 12 (PD-12) under the City's Land Use Element. This allows flexibility in land use types, location, and intensities that would allow individual development projects to be consistent with Station Square Transit Village goals and objectives. The goals and objectives for the Station Square Transit Village are to transition the area to mixed use, high density residential, and/or commercial uses. However, under the current zoning, existing legal uses are considered conforming, allowing the existing light industrial and single-family residential buildings to remain in their current states. New uses in existing structures and new construction would be subject to the provisions of the Business Enterprise (BE) Zone. The entire project area would continue to be designated as PD-12, where industrial and residential uses are allowed in this zone. Under this zoning, the only residential uses that are allowed are the existing single-family houses and high-density residential structures.

Under this alternative, no buildout would occur in the Arroyo at Monrovia Station Specific Plan area and all existing structures would remain; specifically, eight single-family residences, two light industrial structures, a vacant lot, and a private parking lot, all constructed between 1950 and 1957, would remain.

Alternative 1 would not contribute to the vision planned for Station Square Transit Village, which is to create "a dynamic, mixed-use, transit-oriented community." It would also not involve smart growth directed at developing a sustainable community by increasing walkability and accessibility for bicyclists, providing a greater range of transportation and housing choices through transit-oriented development and mixed-use development, and prioritizing infill and redevelopment in a Transit Priority Area (TPA) and High Quality Transit Area (HQTA). These guiding principles and objectives help mitigate overall impacts on air quality, global climate change, and transportation and circulation within the City. Also, existing structures would remain on the property and would therefore not include current techniques in achieving sustainability such as modern fixtures for water conservation and use of green building technology.

Alternative 1 would involve no new development. However, under Alternative 1, none of the project or Station Square Transit Village objectives would be met.

Alternative 2: No Commercial Alternative

Alternative 2 would involve a slight variation of the Project, whereby the Arroyo at Monrovia Station Specific Plan area would be built out as proposed, except the proposed 7,080 square feet of commercial space would be used as residential space only. Therefore, this alternative would still involve development of 302 residential units, but no commercial uses.

Alternative 2 would fulfill the majority of the project goals, though it would not involve mixed uses, as proposed in the Project, due to the lack of commercial space. Under Alternative 2, all project objectives would be met except Objective 6, which calls for the provision of increase retail and commercial space in the Station Square Transit Village.

Alternative 3: Reduced Specific Plan Alternative

Alternative 3 would involve the development of 167 multi-family residential units within the Arroyo at Monrovia Station Specific Plan area. Under this alternative, the westernmost portion of the residential building would not be developed and no development would occur around the single-family residence. at 230 W. Evergreen Avenue that will remain in place, to reduce the magnitude and duration of construction noise on this residence and to further reduce the impact of the Project on the visual character of the neighborhood. With the elimination of the western portion of the building, development would be concentrated in the eastern half of the site.

Under this alternative, amenities would remain such as the swimming pool, public plazas and rooftop decks. However, the parking garage would be scaled back in size commensurate with the Alternative's reduction in 135 residential units so that a proportionate number of parking spaces associated with the 135 fewer dwelling units would be eliminated, and no public parking for METRO's Monrovia Gold Line Station would be provided. In addition, only nine affordable units would be constructed.

Project Objectives

Under a Reduced Specific Plan alternative, important benefits of the Project would be eliminated such as affordable housing and public parking for transit use Therefore, the following three out of the seven project objectives would not be met as well as under the Project:

Objective 2. Enhance the Station Square Transit Village by encouraging pedestrian activity, providing public open space and parking, and enhancing landscaping.

Objective 5. Provide attractive housing that offers a suite of residential amenities and increases Monrovia's housing options, including affordable housing for very low-income households.

Objective 7. Provide public automobile parking and bicycle parking for the public and for residents.

2.4.2 Environmentally Superior Alternative

The CEQA Guidelines (Section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Alternative 1, No Project Alternative, would result in the least environmental impacts, but it would not meet any of the project objectives or goals of the City's Housing Element. Alternative 2 would result in equal impacts on most issue areas as the Project, with the exception of slightly less impacts on air quality, greenhouse gas emissions, noise, traffic, and utilities. Objective 6 would not be met under Alternative 2. Alternative 3 would reduce construction noise impacts on the resident at 230 W. Evergreen Avenue and would have a slightly lower impact on public services, transportation, and utilities. However, Alternative 3 would have a greater impact on land use and planning and population and housing than the Project, as Alternative 3 would not involve the addition of as many affordable housing units or public parking for the Monrovia Gold Line Station. Alternative 3 would be the Environmental Superior Alternative, however, Alternative 3 would be less effective at meeting Project Objectives 2, 5, and 7.

List of Acronyms, Abbreviations, and Symbols	
Acronym/Abbreviation	**Full Phrase or Description**
ACM	asbestos-containing material
BE	Business Enterprise
CEQA	California Environmental Quality Act
C&D	Construction and Demolition
CFD	Communities Facilities District
CHRIS-SCCIC	South Central Coastal Information Center
CRP	Coating Restriction Plan
CNEL	Community Noise Equivalent Levels
CUP	Conditional Use Permit
dB	decibels
dBA	decibels on an A-weighted scale
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ESA	Environmental Site Assessment
HHRA	Human Health Risk Assessment
IESNA	Illuminating Engineering Society of North America
LBP	lead-based paint
Leq	equivalent continuous sound level
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NOP	Notice of Preparation
OTIC	Outdoor/Indoor Transmission Class
PD	Planned Development
SCAQMD	South Coast Air Quality Management District
STC	Sound Transmission Class
VOC	volatile organic compound

3. PROJECT DESCRIPTION

3.1 BACKGROUND

Under California law, Specific Plans identify the long-term vision and objectives for private development and public improvements within a specified planning area (Government Code Section 65450 et seq.). A Specific Plan establishes development standards in the area and land use, transportation, infrastructure, and urban design strategies to provide opportunities for local commercial and residential uses to thrive.

3.2 PROJECT LOCATION AND ENVIRONMENTAL SETTING

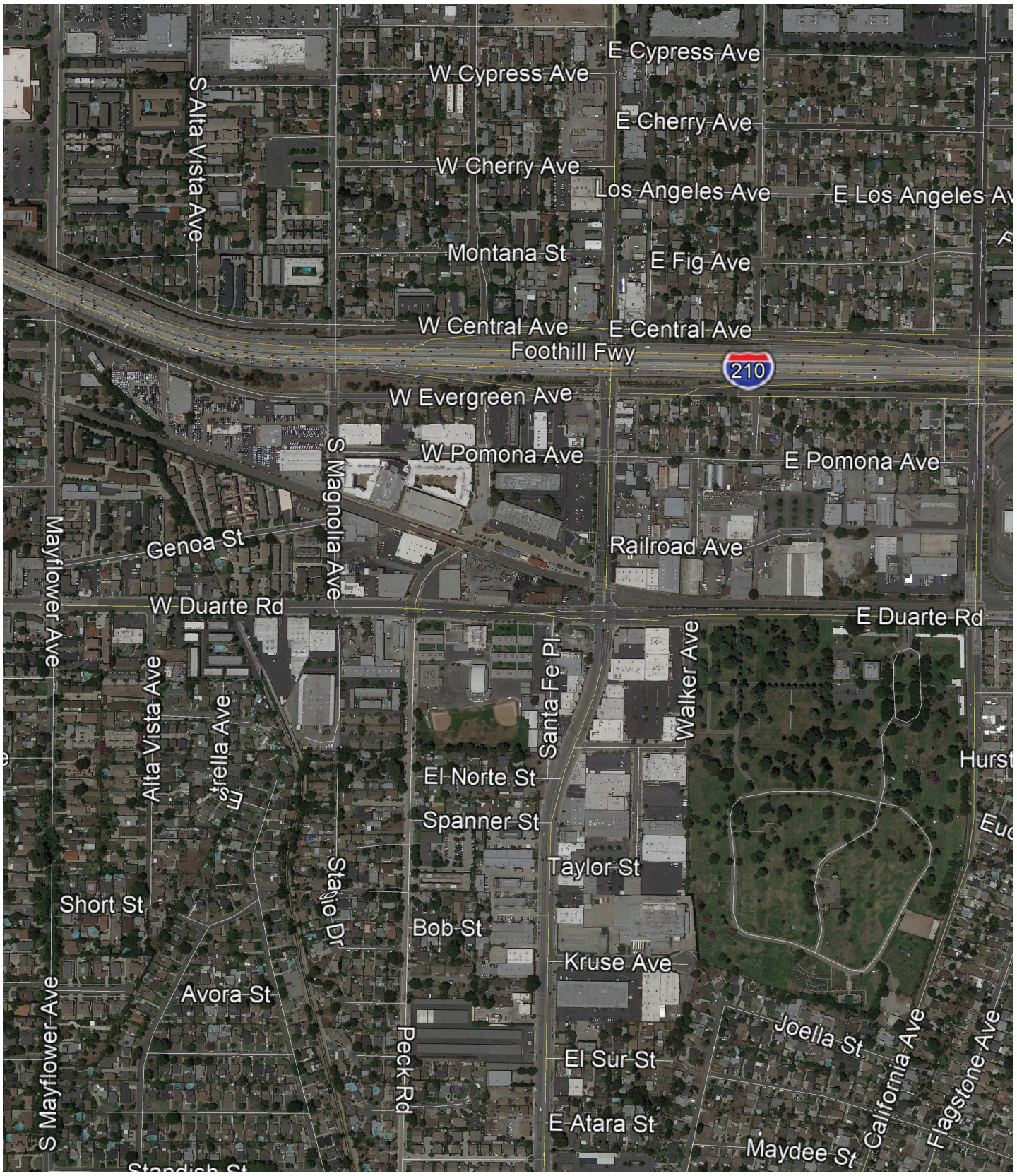
Monrovia is in the San Gabriel Valley region of Los Angeles County. The Arroyo at Monrovia Station Specific Plan (Project) is a proposed 2.90-acre mixed-use development, located at the northwest corner of the City-designated Station Square Transit Village bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west. The Project area comprises the entire block, except for one 0.137-acre single-family residential parcel (Assessor Parcel Number [APN] 8507-002-013) at 230 W. Evergreen Avenue (Figure 3-1).

The Project area currently comprises 8 single-family residences (comprising 7,612 square feet [sf]) and two light industrial buildings/warehouses (comprising 39,500 sf) for a total of 47,112 sf, as well as a vacant lot and a private parking lot (Table 3-1). METRO's Monrovia Gold Line Station is located approximately 385 feet to the south of Project area. The Interstate-210 (I-210) is located on the north side of West Evergreen Avenue across from the Project site.

Table 3-1 Summary of Existing Uses

APN	Acres	Building Square Feet (sf)	Type of Building(s)
8507-002-011	0.13	874	Single-family residence
8507-002-012	0.14	1,212	Single-family residence
8507-002-014	0.14	874	Single-family residence
8507-002-015	0.14	1,069	Single-family residence
8507-002-017	0.14	877	Single-family residence
8507-002-018	0.14	874	Single-family residence
8507-002-019	0.14	958	Single-family residence
8507-002-020	0.14	874	Single-family residence
8507-002-022	0.80	14,938	Industrial
8507-002-023	0.75	24,562	Industrial
8507-002-036	0.14	0	Vacant
8507-002-037	0.12	0	Parking Lot

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Source: ©2019 Google

Figure 3-1: Project Location

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3.3 TRANSIT PRIORITY AREA

The Arroyo at Monrovia Station Specific Plan qualifies as a "Transit Priority Area (TPA)" as defined in Section 21099(a)(7) of CEQA, as well as a "High Quality Transit Area" (HQTA) defined by the Southern California Association of Governments (SCAG) in their 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). TPAs and HQTAs are defined as areas within one-half mile of a major transit stop that are existing or planned where a "major transit stop" is a "site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods" (Section 21064.3 of CEQA).

TPAs and HQTAs are areas where people benefit from increased mobility, more active lifestyles, increased economic opportunity, and an overall higher quality of life (SCAG 2016). High density development in TPAs and HQTAs result in increased ridership on important public transit and result in increased pedestrian and bike infrastructure. Housing near transit helps to increase connectivity to employment opportunities and reduce reliance on automobile ownership. HQTAs account for only three percent of total land area in SCAG region and two percent of the developable land in the region (SCAG 2016). However, these areas are planned and projected to accommodate 46 percent of the region's future household growth and 55 percent of the future employment growth (SCAG 2016).

Development of residential projects, employment centers, or mixed-use projects in TPAs in the region, that are consistent with a specific plan for which an environmental impact report has been certified, can proceed without further CEQA review assuming that they are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in the SCS (Section 21155.4 of CEQA).

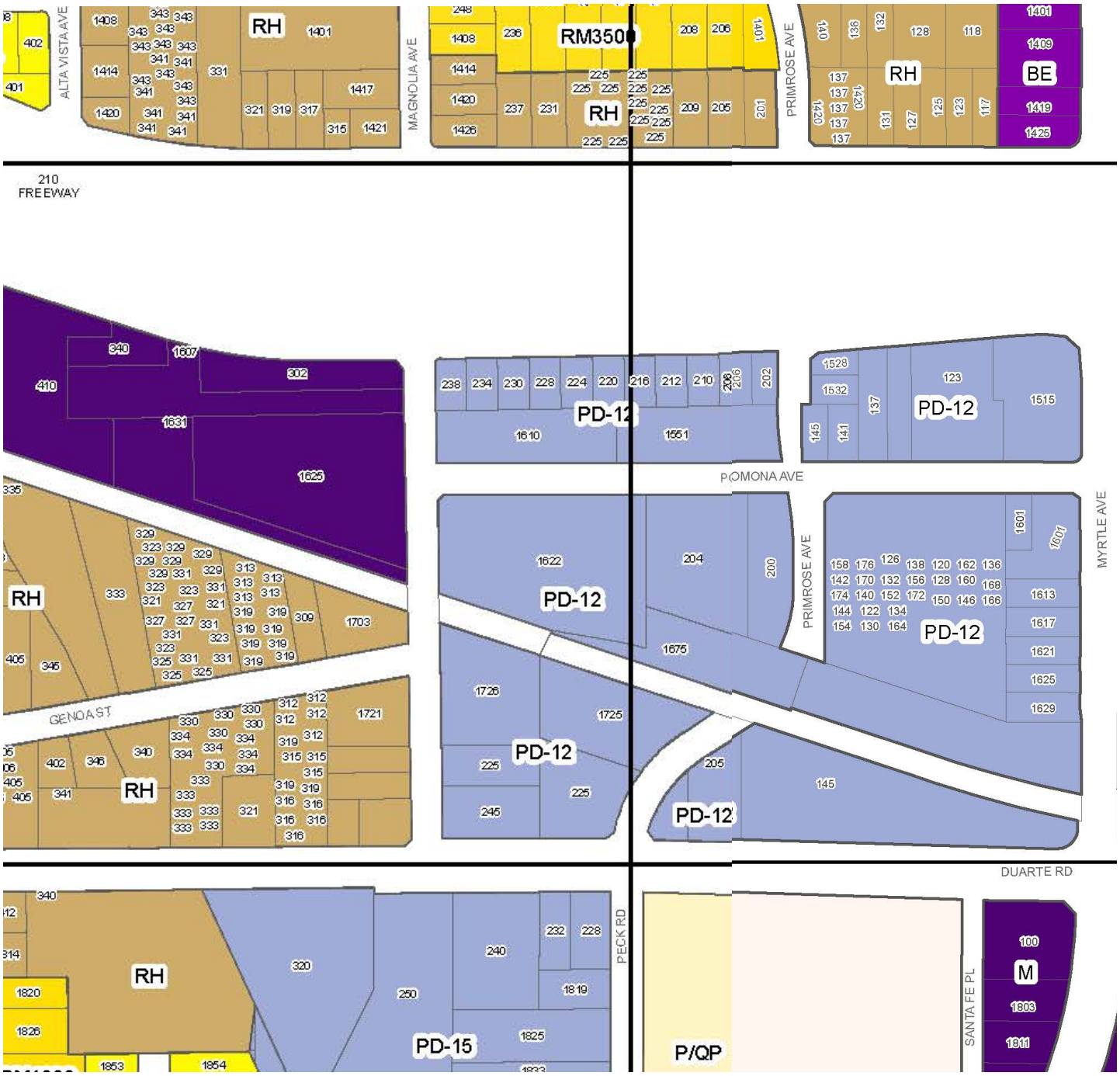
3.4 EXISTING GENERAL PLAN AND ZONING DESIGNATIONS

During the 2002 update of the City's Land Use Element of the General Plan, the City defined three Area Plans including the Station Square Transit Village (City of Monrovia 2015). The boundaries of the Station Square Transit Village are Magnolia Avenue to the west, Evergreen Avenue to the north, Shamrock Avenue to the east, and Duarte Road to the south (Figure 3-2). The vision of the Station Square Transit Village is a dynamic, mixed-use, transit-oriented community designed to encourage strong pedestrian connections, ground floor commercial, open space, high density office, research and development, hospitality and a mixture of residential uses.

Each Area Plan of the City's Land Use Element is within a Specific Plan/Planned Development Overlay. The Project area has a land use designation of Planned Development - Area 12 (PD-12) and is zoned PD-12 (Planned Development - 12) (corresponding with the City's Planned Development - Area 12) (Figure 3-2).

The Project area comprises the far northwest corner of the Station Square Transit Village planned development and contains both Residential and Industrial Neighborhoods described in the City's PD-12 Design Guidelines (Figure 3-3). In Residential Neighborhoods, lot consolidation for the purpose of new multi-family development is permitted subject to a Conditional Use Permit and a subdivision map. Properties totaling less than two acres are subject to the RM/RH (Residential Medium/Residential High) zoning standards. Projects on property totaling greater than two acres are subject to the development parameters of the PD-12 designation and require the approval of a Specific Plan (City of Monrovia 2015).

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Source: City of Monrovia, 2015

Legend

- City Boundary
- ParcelChanges
- Specific Plan
- RecParkPolygon
- 1 Dwelling Unit/10 Acres
- 1 Dwelling Unit/2.5 Acres
- 1 Dwelling Unit/20 Acres
- 1 Dwelling Unit/3 Acres
- 1 Dwelling Unit/5 Acres
- Angeles National Forest
- Hillside Reserve
- Hillside Wilderness Preserve
- Business Enterprise
- Office/Research & Development/Light Manufacturing
- Manufacturing
- Regional/Subregional Commercial
- Historic Downtown Commercial
- Neighborhood Commercial
- Retail Corridor Commercial
- Retail Corridor Mixed
- Specific Plan
- Planned Development
- Public/Quasi Public
- Residential Foothill
- Residential Estate
- Residential Low
- Residential Medium
- Residential High
- Residential Medium-High

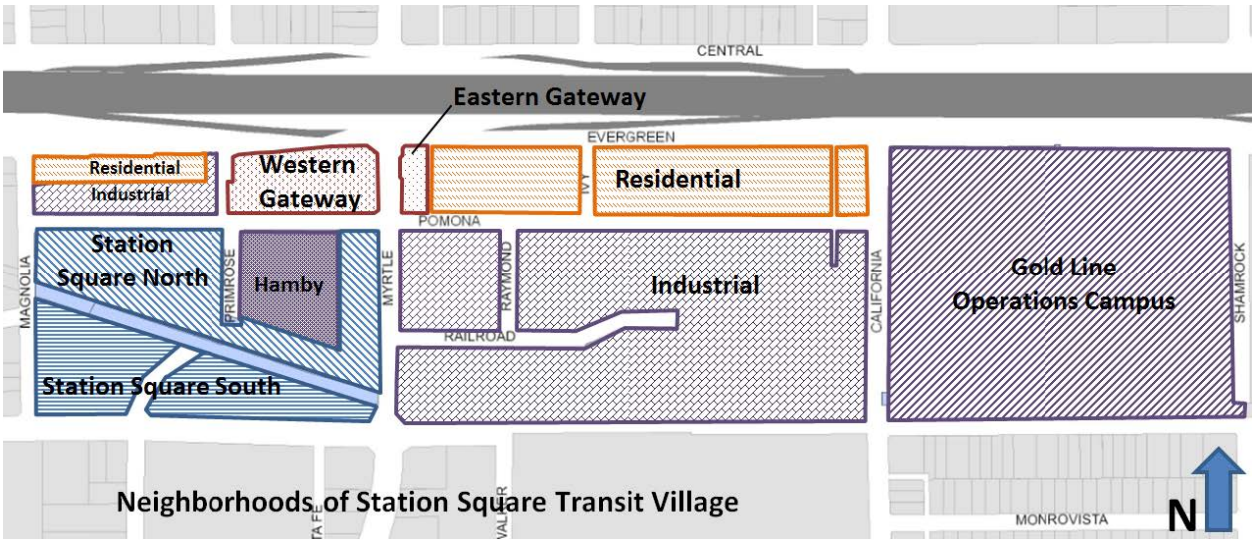
PD-12 - Planned Development – 12 (Station Square Transit Village)

PD-15 - Planned Development 15 (Area southwest of Peck Rd./ Duarte Rd. Intersection)

- Project Area

Figure 3-2: Land Use and Zoning in Project Vicinity

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Source: City of Monrovia, 2015

Figure 3-3: PD-12 Neighborhoods

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Under the current PD-12 Design Guidelines, in Industrial Neighborhoods, new construction shall be subject to the provisions of the Office/Research & Development/Light Manufacturing (O/R&D/LM) as well as the Business Enterprise (BE) zones. Residential/Commercial mixed-use development located on sites totaling a minimum of two acres in size are allowed upon the approval of a Specific Plan. A Floor Area Ratio (FAR) of 2.5 is allowed if a parking structure is proposed in the development. Floor Area Ratio is defined in the City of Monrovia Zoning Code as "the ratio of floor area to net lot area expressed as a percentage" where "floor area" includes "the horizontal area of all the floors of a building measured from the exterior surface of the outside walls including all floors below ground level."

3.5 ARROYO AT MONROVIA STATION SPECIFIC PLAN

MW Investment Group, LLC proposes to develop the Arroyo at Monrovia Station Specific Plan (Project). The Specific Plan provides the regulatory framework for the development of a mixed-use community comprising 302 residential units (of which 15 units will be affordable to very low-income households); three units are in a live/work format and six are flex units, with 2,380 square feet of space for live/work non-residential), 7,080 square feet of commercial fixed and commercial flex space, a 500-space parking garage, and open space (see Table 3-1). The Specific Plan establishes the land use regulations, development standards, and design guidelines tailored to achieve goals set forth by the City. A "flex unit" is a space intended for a non-residential, neighborhood-serving use, but may be repurposed into a live/work unit. A range of studios, and one-bedroom and two-bedroom apartments are proposed.

Table 3-2 Project Summary

Use	Dwelling Units	Non-Residential Square Feet
Multi-Family Apartment Units	299	
Live/Work Units	3	2,380
Commercial and Commercial Flex Space		7,080
Total	**302**	**9,460**

The proposed Specific Plan site plan, elevations, and sections are shown in Figures 3-4 through 3-8. The proposed Specific Plan open space plan, a building section, landscape plan, and fencing plan are shown in Figures 3-9 through 3-11. A mobility plan is shown in Figure 3-12. Site photos are shown in Figure 3-13, and a 3D rendering and view simulations of the Project are shown in Figures 3-14 through 3-22.

An overall project site FAR of 2.66:1 is proposed under the Arroyo at Monrovia Station, which includes an FAR of 1.78:1 in the Residential Neighborhood and an FAR of 3.31:1 in the Industrial Neighborhood. Because the PD-12 Guidelines limit the FAR in the Industrial Neighborhood to 2.5:1, the applicant is requesting one density bonus incentive under California's Senate Bill (SB) 1818 Density Bonus Law, to allow the 3.31:1 FAR by providing affordable housing units. Therefore, fifteen of the proposed residential units would be dedicated as Very Low Income affordable units.

A residential building summary showing the proposed number and size of residential units is provided in Table 3-2. The full proposed plan set is included in Appendix M.

Table 3-3 Unit Floor Plans

	Total Number of Units	Unit Size in Square Feet
Studio	62	554 - 823
One Bedroom	136	706 - 894
Two Bedroom	101	950 – 1,422
Live/Work	3	1,587[1]
Total	**302**	

Notes:
Fifteen Very Low Income affordable units are proposed among the 302 units.
Specific sizes for each unit type are provided in the full proposed plan set, included in Appendix M.
[1] Includes 790 square feet of non-residential space.

Project Amenities

Other tenant amenities include a pool, a pet spa, bike "kitchen" (i.e., bicycle repair area), tenant lounge, centralized mail/package delivery room, and a golf simulation room. No offsite improvements to utilities are proposed under the Project, with the exception of sidewalk improvements around the perimeter of the development.

Open Space

The Specific Plan creates a well-connected assemblage of the proposed private and publicly accessible outdoor urban spaces including plazas, central courtyards, a dog park, pedestrian pathways, and private balconies/patios. In addition to ground-level resident courtyards, a 5,410 square foot common rooftop amenity deck is located on the roof of the parking structure's 8th level. The development plan proposes approximately 4,654 square feet (sf) of publicly accessible open space, 18,426 sf of residents' common open space/recreation, 12,513 sf of residents' private open space, and 49,041 sf of landscaped areas as shown in Table 3-3.

Table 3-4 Open Space and Recreational Space

Open Space Type	Size (sf)
Public Open Space	
Promenade Plaza	1,439
Refuge	437
Community Plaza	1,972
Entry Court	806
Subtotal	**4,654**
Private Residential Space	
Private Balcony or Patio Space	12,153
Subtotal	**12,153**
Resident's Common Outdoor Areas	
The Resort	6,362
Resident Backyard	6,305
Bark Park	349
Sky Terrace	5,410
Subtotal	**18,426**
Interior Recreational Amenities	
Gym	1,682
Gym Loft	487

Table 3-4 Open Space and Recreational Space

Open Space Type	Size (sf)
Bike Room 1	480
Bike Room 2	429
Club Room	1,480
Virtual Golf	800
Dog Spa	194
Pool Facilities	696
Outdoor Lounge	972
Subtotal	**7,220**
Landscaped Areas	
Onsite Softscape	12,772
Onsite Hardscape	22,483
Offsite Softscape	3,604
Offsite Hardscape	10,183
Subtotal	**49,041**
Total	**91,494**

Note:
sf square feet

Building Height

As illustrated in the plan set contained in Appendix M, the proposed maximum height of the residential building is 84 feet from the adjacent finished grade, and the proposed maximum height of the parking structure is 84 feet from the adjacent finished grade. The parking structure would have seven levels of Type III wood construction wrapping around the above-grade portion of the Type I concrete parking structure and half of a level of semi-subterranean parking.

Vehicle and Bicycle Parking

There are 500 parking spaces provided in the parking structure: 406 spaces for project residents and their guests, 19 paid parking spaces for adjacent transit users, and 48 spaces for live/work units, leasing, and commercial uses. This total provision of parking includes 13 standard accessible stalls, 4 electric vehicle accessible stalls, and 40 electric vehicle standard stalls. A total of 182 bicycle parking spaces are included.

Site Access

Vehicular access to the Project would occur via two access driveways: one right-turn in/right-turn out driveway on Evergreen Avenue (Evergreen Avenue is a one-way eastbound street along the Project frontage) and one full access driveway on Pomona Avenue.

Site Drainage

An underground storage and treatment system would be utilized to capture and treat storm water runoff which would then be subsequently discharged down two new dry wells that would be installed under the Project.

Loading Services

Loading services for retail, trash pick-up, and move-in are provided inside the parking structure, at ground level, to avoid traffic congestion on the adjacent streets.

Development and Operational Standards

The Development Standards of the Arroyo at Monrovia Station Specific Plan are summarized in Table 3-4.

Table 3-5 Development Standards

Development Features	Standard
Density	103 units/acre
Floor Area Ratio (FAR)	2.66
Height – Residential Structure	84' maximum from adjacent finished grade
Height – Parking Garage Structure	84' from adjacent finished grade
Minimum Building Setbacks from Rights-of-Way	
Minimum Building Setback from Single-Family Residential Unit	10' - transformer sound wall 20' - residential structure
Minimum Lot Size	86,120 square feet
Design elements inclusive of exterior building elements, various site design and elements, gates and fencing, landscape, public and private open spaces, pedestrian/ADA pathways, parking structure and parking areas, signs, and any others as determined by the Development Review Committee.	Per approved plans. Modifications subject to Minor Exceptions (Section 17.52.110 of the Municipal Code) or a Major Variance (Section 17.52.120) as determined by the Community Development Director and/or the Development Review Committee.

In addition, the Specific Plan includes standards for lighting, signs, walls and fences, landscaping, mechanical equipment, trash enclosures, and utilities, which are detailed below.

<u>Lighting</u>

- Lighting shall be an integral part of the design theme. Proper lighting design shall be used to have a positive effect on the appearance of the building and the perception of users, and to promote a safe and enjoyable nighttime pedestrian environment. Lighting to be provided in all parking, vehicular, and pedestrian circulation, loading, and storage areas. The lighting plan shall accommodate all operations and uses of the site. At a minimum, the lighting shall provide the following:

    - **Residential Areas.** All exterior residential lighting shall be designed to be decorative and unobtrusive. Lighting shall be designed to avoid glare into neighboring homes, public spaces, or into the night sky. Illumination of common open spaces shall be low profile.

    - **Area Lighting for Pedestrian Walkways and Plazas.** Lighting shall be directed to provide for safety without allowing stray light to intrude into windows of nearby residences or to create glare problems for nearby roadway traffic.

    - "**Hidden Source" Lighting.** For certain prominent architectural features, hidden source lighting can be used to create dramatic effects, illuminating unique architectural or landscape features. Such lighting can be concealed in soffits,

behind ledges or parapets, or set into landscape areas with the light directed at the element to be highlighted. Use of low, bollard-type lighting and/or landscape accent lighting is encouraged, especially in pedestrian areas.

- A lighting plan shall be submitted for the Planning Division's review and approval; the lighting plan shall demonstrate that:
    - Lighting levels are sufficient to provide for pedestrian and parked vehicle safety and security, but not in any manner that adversely impacts adjacent properties and roadways;
    - Lighting is located to assure adequate light levels and create an even level of illumination;
    - Exterior lighting is architecturally integrated with the building style, materials, finishes, and colors; and
    - Lighting is directed away from the single-family residence and its yard.

Signs

- A comprehensive sign program shall be submitted for approval by the Development Review Committee. The sign program may include plans for the design, location, illumination levels, and size of signs appropriate for the mixed-use nature of the development. The comprehensive sign program will include wayfinding signs, lease notices, retail signage, and any other signs used for advertisement. Wayfinding signs for automobile and bicycle parking and for pedestrians will be provided throughout the development to ensure ease of circulation.

Walls and Fences

Fences inclusive of controlled access barriers, gates, equipment screening, and trash enclosures are allowed up to 6 feet maximum. The maximum height for walls and fences facing a public street shall be no more than 6 feet at the setback line, except for an 8' maximum height sound wall adjacent to the transformer and single-family home and an 8' maximum height decorative wall adjacent to the single-family parcel.

- Walls and fences shall:
    - Be integrated with the building design using similar or complementary colors and material suitable for a gateway location;
    - Not obstruct publicly accessible areas;
    - Use buffers in lieu of walls and fences style, such as landscaped planters, whenever possible; and
    - Implement relevant Crime Prevention Through Environmental Design (CPTED) principles.

Landscaping

- Landscaping shall be provided in substantial conformance with the landscape plan contained in the project application submittals. The purpose of the landscaping standards and guidelines is to provide landscaping that enhances the quality of the development, creates shade for pedestrians, utilizes drought-tolerant plant materials that are sustainable and beneficial, and contributes positively to the appearance of the Arroyo at Monrovia Station development.

- In addition, a landscape documentation package pursuant to the requirements Section 17.20.030 (Water Efficient Landscape Ordinance) of the Monrovia Municipal Code shall be submitted to the Planning Division for approval prior to landscape construction. All installation and documentation shall be performed as required by the Code.

- Landscape maintenance shall be performed as required by applicable Title 8 (Health and Safety) of the Municipal Code.

- Landscape design quality shall be measured for its qualities that communicate an outstanding attention to fine landscape architecture. The master landscape concept for the Arroyo at Monrovia Station Specific Plan shall respond to the following goals and objectives.

    - Create “green areas” to enhance important public spots making them easily accessible to all in the community.

    - Make sidewalks, walkways, and pedestrian areas convenient, attractive, comfortable, and safe.

    - Accommodate multimodal transportation modes throughout this Specific Plan area, including walking, bicycling, and use of public transit.

    - Present visibly well-crafted structure and an ordered layer of plantings capable of defining an area and the surrounding structures.

    - Create the sense of a pleasant outdoor “living room” for residents and visitors.

    - Provide buffering to the adjacent single family home.

- To the extent consistent with other design considerations, landscape design shall minimize resource consumption. Materials considered shall protect the natural environment from long-term harm. Hardscape materials shall:

    - Have durability;

    - Use minimal energy in their manufacture and/or transport to the site;

    - Incorporate recycled content; and

    - Have minimal non-renewable material content.

- Trees shall be sited to provide shade for the south-facing building elevations to reduce the site’s energy requirements.

- Drought-tolerant landscaping is highly encouraged. Plant selection shall be based on site characteristics such as exposure, light intensity, soil analysis, site drainage, and irrigation.

Proper plant selection based on site characteristics shall enhance the plants' likelihood of becoming established in the site and reduce potential incidences of low vigor, excessive maintenance, disease, or death.

- To ensure water efficiency, appropriate landscaping shall be irrigated through a drip, bubbler, or high-efficiency sprinkler system.

- The Arroyo at Monrovia Station shall select, plant, and maintain the types of trees and shrubs in Courtyard 1 (Resident Backyard) to improve privacy of the single-family home and to decrease noise impacts from the adjacent residential units and open space areas.

- The Arroyo at Monrovia Station shall use landscaping material to obscure the view of any refuse collection area, equipment, Fire Department connections, and loading areas visible from the public street or pedestrian area.

- The Arroyo at Monrovia Station shall include appropriate landscaping to maximize privacy between residences and nonresidential uses and shall include appropriate planting to screen or soften any undesirable light pollution or views from off site.

- The Arroyo at Monrovia Station's design shall take into consideration the future impact the new plantings may have in obscuring views from adjacent uses.

- The landscape palette shall allow for a high degree of water conservation. Irrigation practices shall include the use of water-efficient equipment that complies with applicable City codes. The irrigation system shall be designed to meet the following criteria:

    - Conform to the City's irrigation water systems construction regulations;

    - Encourage an approved weather-based irrigation system;

    - Design, install, and equip irrigation systems in conformance with the highest industry standards. All constant pressure reclaimed and/or potable water mainline piping installed shall be identified in accordance with the City of Monrovia regulations;

    - Be controlled with automatic irrigation controllers and be installed to maximize ease of operation and maintenance;

    - Install systems in a manner that minimizes opportunities for vandalism. All controllers, pumps and associated equipment must be screened from view with planting and/or landscape walls.

    - Adequately irrigate all landscape planting areas;

    - Program irrigation systems to operate, generally, between the hours of 9:00 PM and 6:00 AM, unless otherwise directed by the City Engineer; and

    - Locate sprinkler heads to avoid over spray on to sidewalks, roadways, buildings, etc.

<u>Mechanical Equipment</u>

- All aboveground mechanical equipment—including but not limited to aboveground utility boxes, telephone boxes, water lines, back-flow preventers, and cable boxes—shall be completely screened behind a permanent structure or appropriate landscape screen.

- Air conditioners, heating, cooling and ventilating equipment, and all other mechanical, lighting, and electrical devices shall be screened from view and noise from adjacent properties. HVAC equipment should be selected based on noise ratings and energy efficiency.

- Roof-mounted equipment shall not be visible from surrounding properties or the adjacent public rights-of-way. As necessary, screening shall be provided by a parapet wall or similar architectural feature.

- This Specific Plan shall comply with the regulations established per the Monrovia Noise Ordinance (MMC Chapter 9.44) and will incorporate the mitigation measures outlined in the Environmental Impact Report (EIR) upon its certification. Following construction and upon resident occupancy, all subsequent rooftop and outdoor activities shall be regulated and subject to the provisions established per the Monrovia Noise Ordinance (MMC Chapter 9.44).

Trash Enclosures

- Enclosures shall be required for refuse and recycling bins; all trash and recycling enclosures shall be located within the parking garage or otherwise interior to the development. Secured trash and recycling bins may be located on any publicly accessible areas and shall be integrated into the site's prevailing design elements.

- Areas for trash enclosures shall be adequate in capacity, number, and distribution to serve the development project.

- All trash enclosures shall be set forth on the site plan and subject to review and approval by the Community Development Director.

Utilities

- All utility connections for new construction shall be placed underground along the project frontage, however, utility connections to structures that lawfully pre-exist the adoption of this Specific Plan may be maintained when it can be demonstrated that the undergrounding of such utilities is not reasonably feasible, as determined by the Development Review Committee.

Operational Standards

The Arroyo at Monrovia Station operational standards for nonresidential uses are:

- Nonresidential uses are permitted on the ground floor and in the dedicated commercial space;

- Work areas may only be open for business during the hours of 6:00 am to 8:00 pm, unless late night operations have been approved through a Major Conditional Use Permit for hours 12 am to 6 am, or a Minor Conditional Use Permit for hours 8 pm to 12 am;

- Nonresidential uses may not involve any noxious, hazardous, toxic, caustic, explosive or corrosive fuel, gas or other substances fire explosion or other damaging or dangerous hazard including the storage or sale of explosives or fireworks;

Uses that produce any noise or sound that is objectionable due to intermittence, beat, frequency, shrillness or loudness shall be prohibited; and

- All businesses must comply with the applicable provisions of the City of Monrovia Municipal Code.

Good Neighbor Features

Finally, the Arroyo at Monrovia Station Specific Plan includes numerous good neighbor features that lessens light, shadow, noise, odor impacts on adjacent residential uses or provides new activities for nearby residents. Other good neighbor features enhance connectivity within the Monrovia Station Square neighborhood to the Gold Line station. These good neighbor features include but are not limited to:

- New walkable street frontages with aesthetically pleasing streetscape shall be provided around the entire Specific Plan's perimeter with access to public plazas along West Pomona Avenue; thereby, enhancing the visual quality of the entire neighborhood, including the viewshed of the adjacent multifamily residences;
- Improved pedestrian linkages along South Primrose Avenue, West Pomona Avenue, South Magnolia Avenue, and West Evergreen Avenue shall be provided, thereby enhancing pedestrian connectivity to the Gold Line transit station;
- New public plazas and open space on West Pomona Avenue shall be provided for neighbors and the public to enjoy;
- New retail and other businesses for residents, neighbors, and visitors to frequent will be provided, thereby enlivening the neighborhood while reducing vehicle trips;
- Sizeable setbacks (specifically, 20' on the east, 22' on the south, and 40' on the west) adjacent single-family home to create separation and buffer while allowing sunlight to shine on the adjacent residence and its yard;
- Building massing will be stepped back on the West Evergreen Avenue's top floor east of the adjacent single-family home;
- Residential units immediately east of the adjacent single-family home shall not have balconies to provide additional privacy to the single-family home and its yard;
- An 8-foot decorative masonry wall shall be constructed at the property line between the adjacent single-family home and the project to protect the single-family home's sense of privacy from the adjacent open space;
- Dense plantings will screen views of the proposed buildings and will buffer the adjacent single-family home, thereby, further reducing the visual scale of the proposed buildings;
- Extensive tree plantings around the entire buffering setback area on three sides of the adjacent single-family home will be provided to establish a landscape vista from the home and provide another layer of privacy. Most of the plantings adjacent to the single-family home shall be evergreen to ensure year-round buffer;
- An 8-foot sound wall adjacent to the transformer and a highly landscaped 10-foot setback between the sound wall and the adjacent single-family home shall be provided to lessen transformer's operation noise and improve aesthetics;
- All lighting sources shall be directed so that they do not fall outside of the areas to be lighted. Guards and shields shall be used to direct lighting away from adjacent properties;
- Landscape lighting sources for the landscape and paved areas shall be concealed so the lighting is indirect;

- Passive open space, rather than active open space or recreation, shall be programmed for open space areas next to the adjacent single-family home;
- Public open space and recreation areas adjacent to the single-family home and across the street from multifamily residences shall have limited operation hours (8:00 AM to 10:00 PM);
- Noise levels shall be observed and compliance with the City of Monrovia's Noise Ordinance (MMC Chapter 9.44) will be enforced;
- Unsightly power poles and lines along West Evergreen Avenue and sidewalk shall be removed, thus creating a new, beautiful streetscape within the public right-of-way and in front of the single-family home;
- Potential for the adjacent single-family home's residents to use the Arroyo at Monrovia Station's private open space and recreational amenities; and
- HVAC and other noise-generating mechanical equipment shall be selected for its lower noise emission, air emission, and energy-saving qualities. HVAC and all other noise-generating mechanical equipment is required to be located behind sound barriers, parapets, dense landscaping, etc. to reduce noise emissions.

3.5.1 Floor Area Ratio

The proposed multi-family residential development and parking structure would span both Residential and Industrial Neighborhoods of the PD-12 area. Development of the Project involves construction of a parking structure consistent with the PD-12 Design Guidelines; therefore, a Floor Area Ratio (FAR) of 2.5 is allowed under the current PD-12 Design Guidelines in the Industrial Neighborhood. However, the Project proposes to result in a FAR of 3.31 within the Industrial Neighborhood. Therefore, of the proposed 302 units, 15 would be for Very Low Income to qualify for the State's Density Bonus Program to allow for an overall FAR of 3.31 within Industrial Neighborhoods under this Specific Plan.

3.5.2 Demolition and Construction

Approximately 47,112 sf of existing structures would be demolished. Construction of the proposed Project would involve 8,585 cubic yards (cy) of cut, 2,065 cy of fill, with a net export of 3,430 cy (considering shrinkage). The parking structure would be partially subterranean requiring excavation approximately five feet below existing grade with localized deeper excavations where necessary. Excavation across the entire site approximately 10 feet below existing grade would be required to achieve the recommended earthwork removal and re-compaction. Construction of the proposed Project is planned to begin in 2020 with a target operation start date in 2022. The Applicant will prepare a Construction Traffic Management Plan to control construction traffic into and out of the Project site.

3.6 PROJECT OBJECTIVES

Consistent with the Planning Objectives of the Station Square Transit Village, the objectives of the Arroyo at Monrovia Station Specific Plan are as follows:

Objective 1. Project the image of Monrovia as an attractive, environmentally sustainable community.

Objective 2. Enhance the Station Square Transit Village by encouraging pedestrian activity, providing public open space and parking, and enhancing landscaping.

Objective 3. Redevelop the project site to cluster high-density housing opportunities where transit and other amenities are readily available, thus capitalizing on and enhancing the Station Square Transit Village synergy.

Objective 4. Accommodate sustainable site and architectural design that implements the latest California Green Building and Green Energy Codes, allows for alternative vehicle fueling facilities, implements the City's storm water management programs, and uses water conservation landscaping techniques consistent with the City's regulations.

Objective 5. Provide attractive housing that offers a suite of residential amenities and increases Monrovia's housing options, including affordable housing for very low-income households.

Objective 6. Increase retail and commercial space in the Station Square Transit Village.

Objective 7. Provide public automobile parking and bicycle parking for the public and for residents.

3.7 INTENDED USE OF THIS EIR

This EIR can be used to support the following discretionary approval processes by the City:

- Certification of the Final Environmental Impact Report;
- Adoption of a Mitigation Monitoring and Reporting Program;
- Adoption of the Arroyo at Monrovia Station Specific Plan;
- Approval of a Vesting Tentative Tract Map for the consolidation of twelve parcels into one;
- Approval of a Conditional Use Permit (CUP) to construct the development;
- A General Plan Conformity Finding for the dedication of public right-of-way, and
- Adoption of a Zone Map Amendment and Municipal Code Amendment to add the Arroyo at Monrovia Station Specific Plan to the Zoning Map and Section 17.04.035 of the Monrovia Municipal Code.

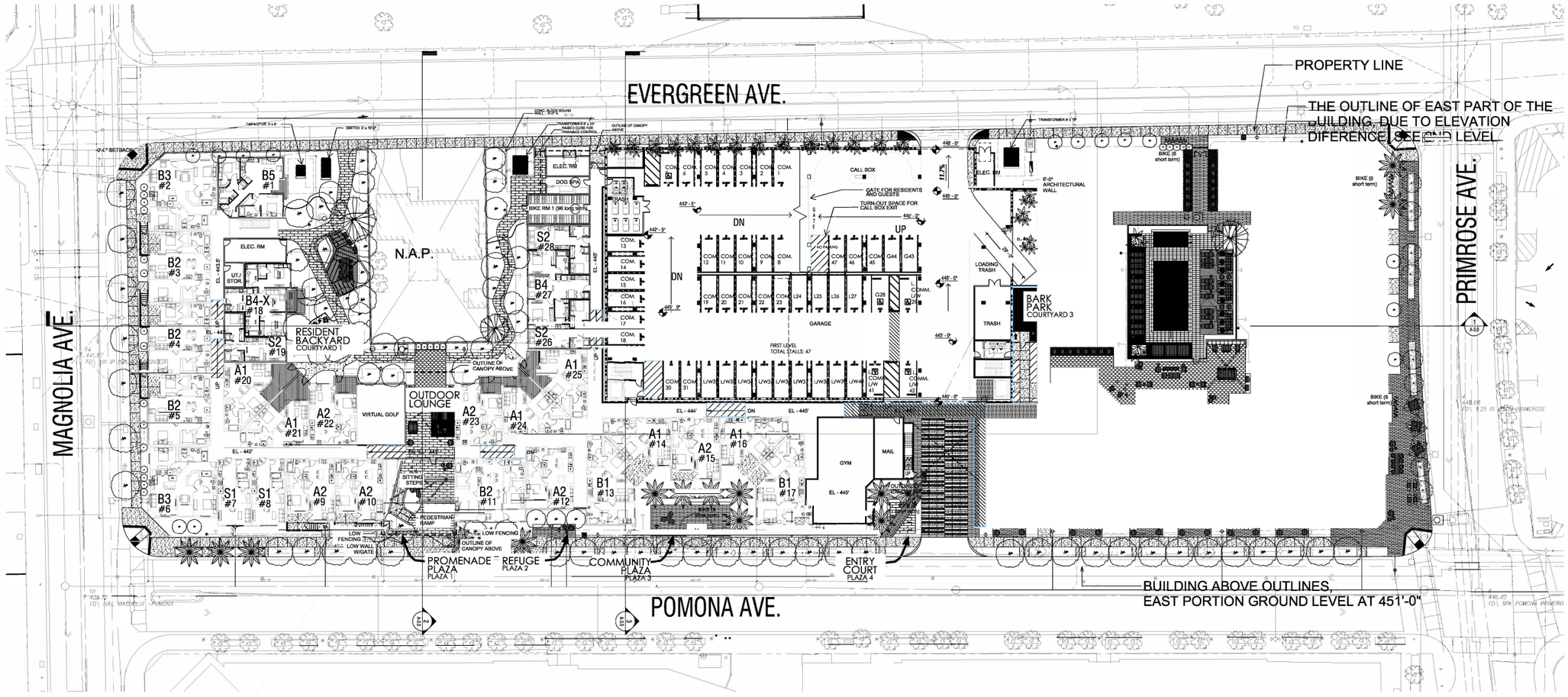
List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
APN	Assessor Parcel Number
BE	Business Enterprise zone
CEQA	California Environmental Quality Act
CUP	Conditional Use Permit
cy	cubic yards
DU	dwelling units
du/ac	dwelling units per acre
EIR	Environmental Impact Report
FAR	Floor Area Ration
HQTA	High Quality Transit Area
I-210	Interstate-210
METRO	Los Angeles County Metropolitan Transportation Authority
O/RD/LM	Office/Research & Development/Light Manufacturing
PD	Planned Development
RH	Residential High Zone
RM	Residential Medium Zone

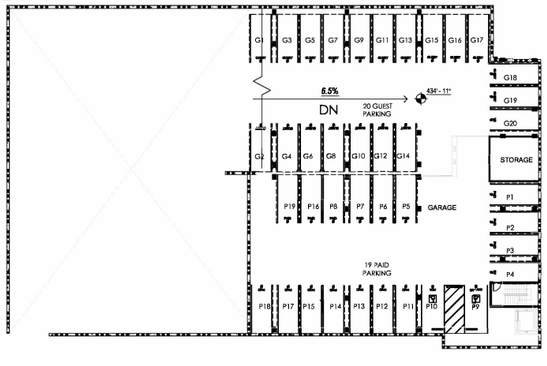
List of Acronyms, Abbreviations, and Symbols	
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
sf	square feet
TPA	Transit Priority Area

References Cited

City of Monrovia
2015 General Plan, Land Use Element. April.

Southern California Association of Governments (SCAG)
2016 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Adopted April.





SUBTERRANEAN

GROUND LEVEL PLAN
28 DU PER PLAN

SITE PLAN-GROUND LEVEL SUBTERRANEAN LEVEL

NOTES:

ALL SETBACK DIMENSIONS SHOWN ON THE PLANS ARE TO THE WALL OF BUILDING. ARCHITECTURAL PROJECTIONS AND STOOPS ARE ALLOWED WITHIN THE SETBACK AREA

REFERENCE TO LANDSCAPE DRAWING FOR LANDSCAPE DESIGN

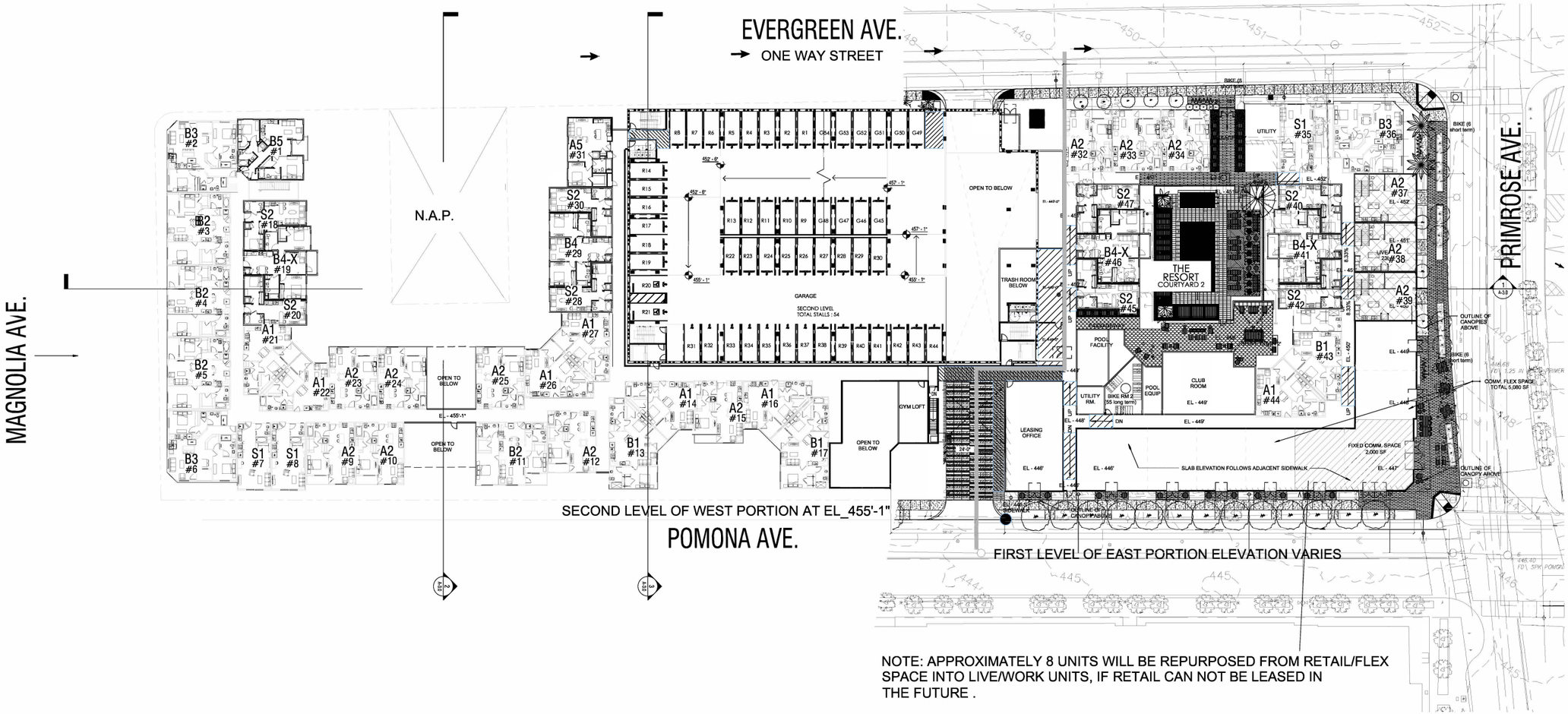
REFERENCE TO CIVIL DRAWINGS FOR GRADING, UTILITY, LID, TRACT MAP INFORMATION.

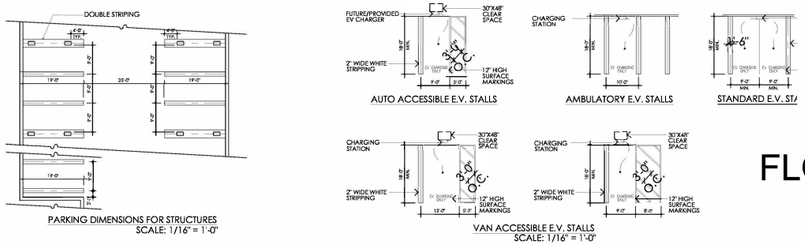
Source: Evergreen Investment Partners, LLC and Architects Orange 2019

Figure 3-4 Site Plan (Page 1 of 5)

Arroyo at Monrovia Station Specific Plan Draft EIR

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FLOOR PLAN LEVELS 1 - 2

47 DU PER PLAN

NOTES:

ALL SETBACK DIMENSIONS SHOWN ON THE PLANS ARE TO THE WALL OF BUILDING. ARCHITECTURAL PROJECTIONS AND STOOPS ARE ALLOWED WITHIN THE SETBACK AREA

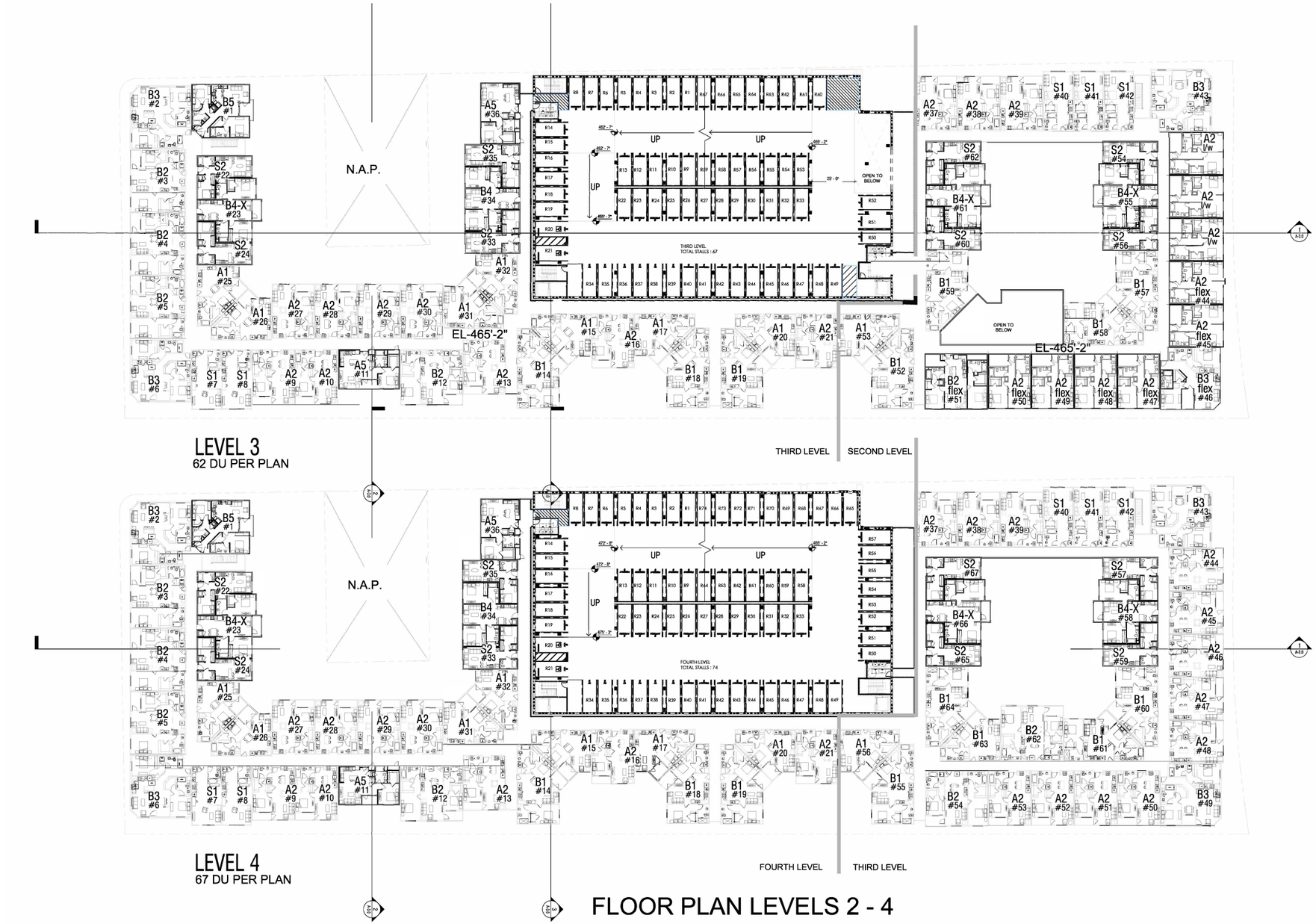
REFERENCE TO LANDSCAPE DRAWING FOR LANDSCAPE DESIGN

REFERENCE TO CIVIL DRAWINGS FOR GRADING, UTILITY, LID, TRACT MAP INFORMATION.

Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-4 Site Plan (Page 2 of 5)

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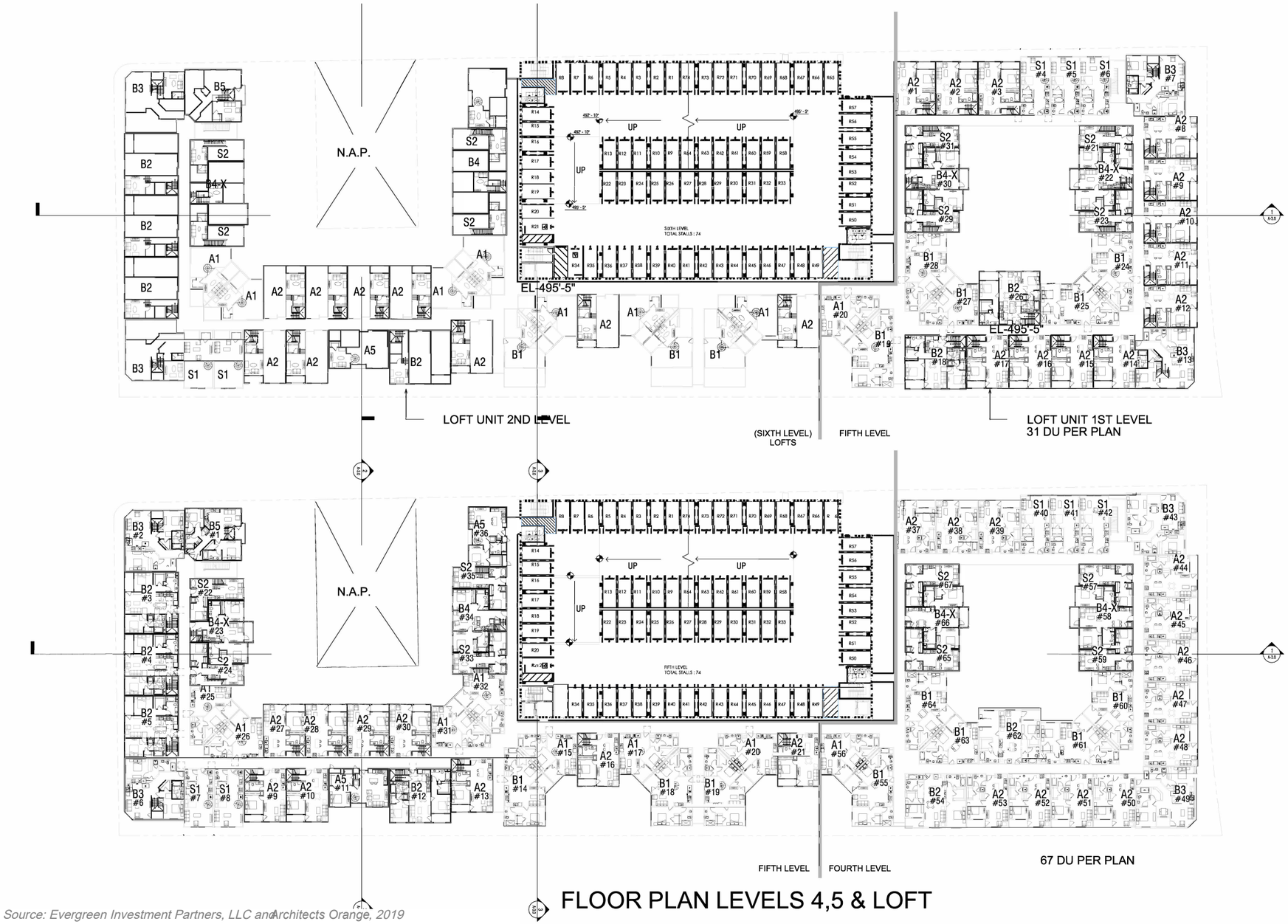
FLOOR PLAN LEVELS 2 - 4

Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-4 Site Plan (Page 3 of 5)

Arroyo at Monrovia Station Specific Plan Draft EIR

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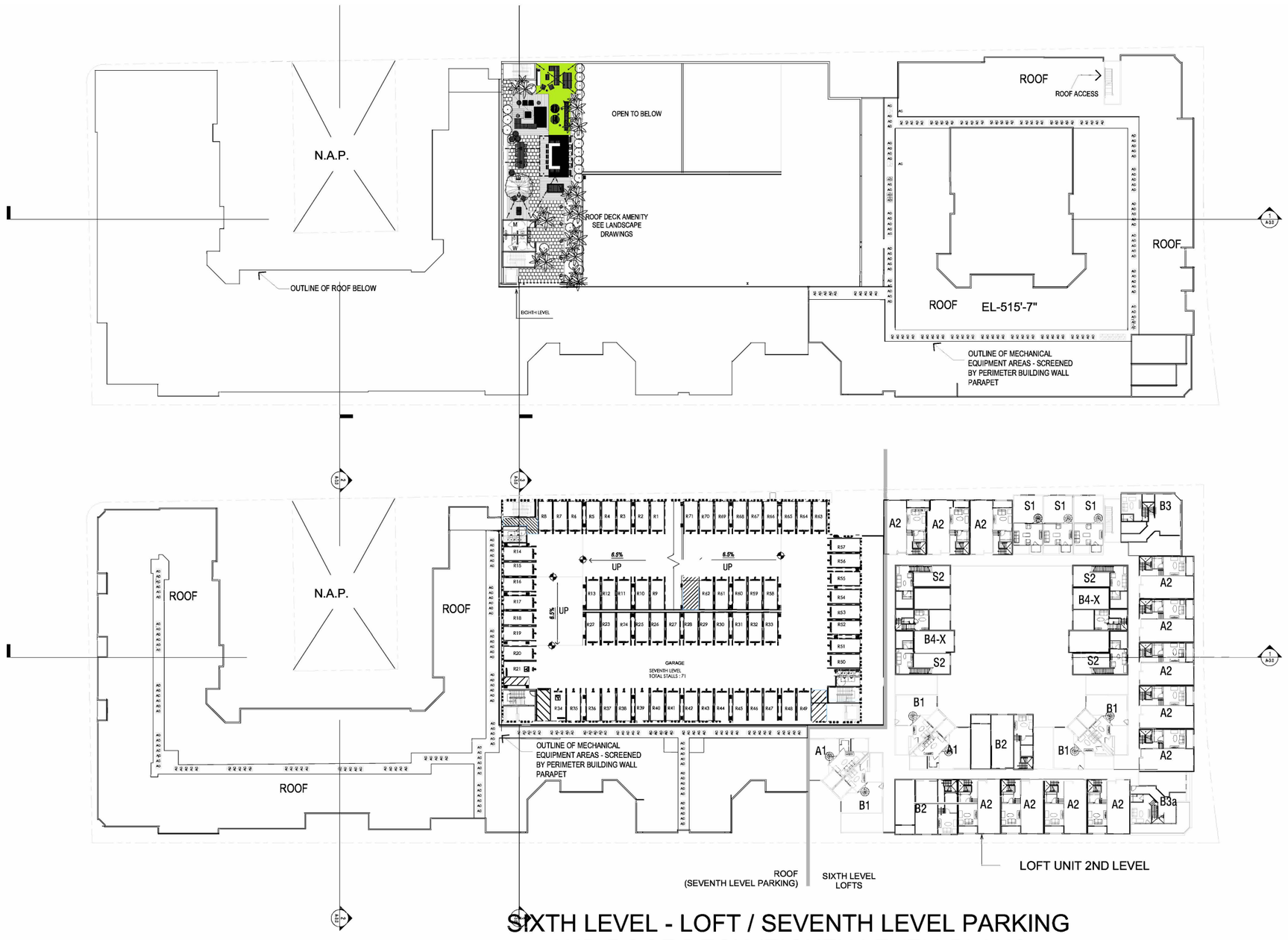
FLOOR PLAN LEVELS 4,5 & LOFT

Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-4 Site Plan (Page 4 of 5)

Arroyo at Monrovia Station Specific Plan Draft EIR

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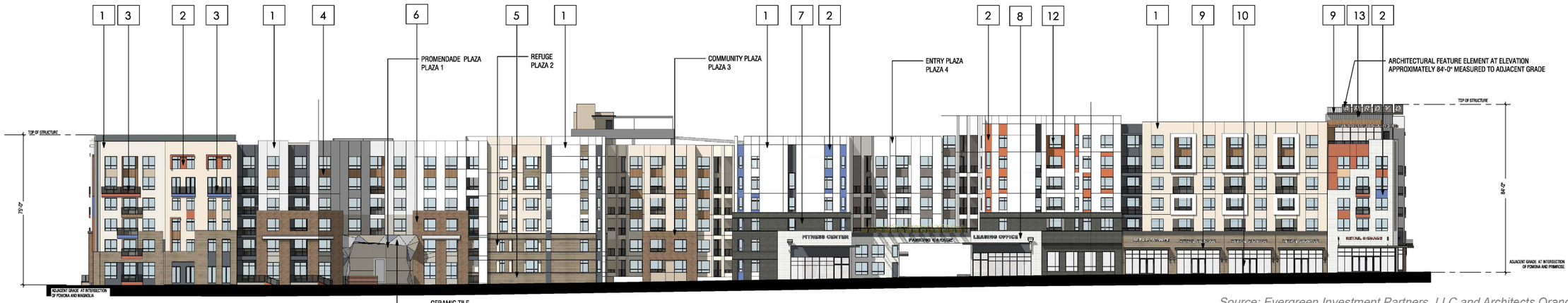
SIXTH LEVEL - LOFT / SEVENTH LEVEL PARKING AND ROOF DECK (EIGHTH LEVEL) PLANS

Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-4 Site Plan (Page 5 of 5)

Arroyo at Monrovia Station Specific Plan Draft EIR

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SOUTH ELEVATION - POMONA AVENUE

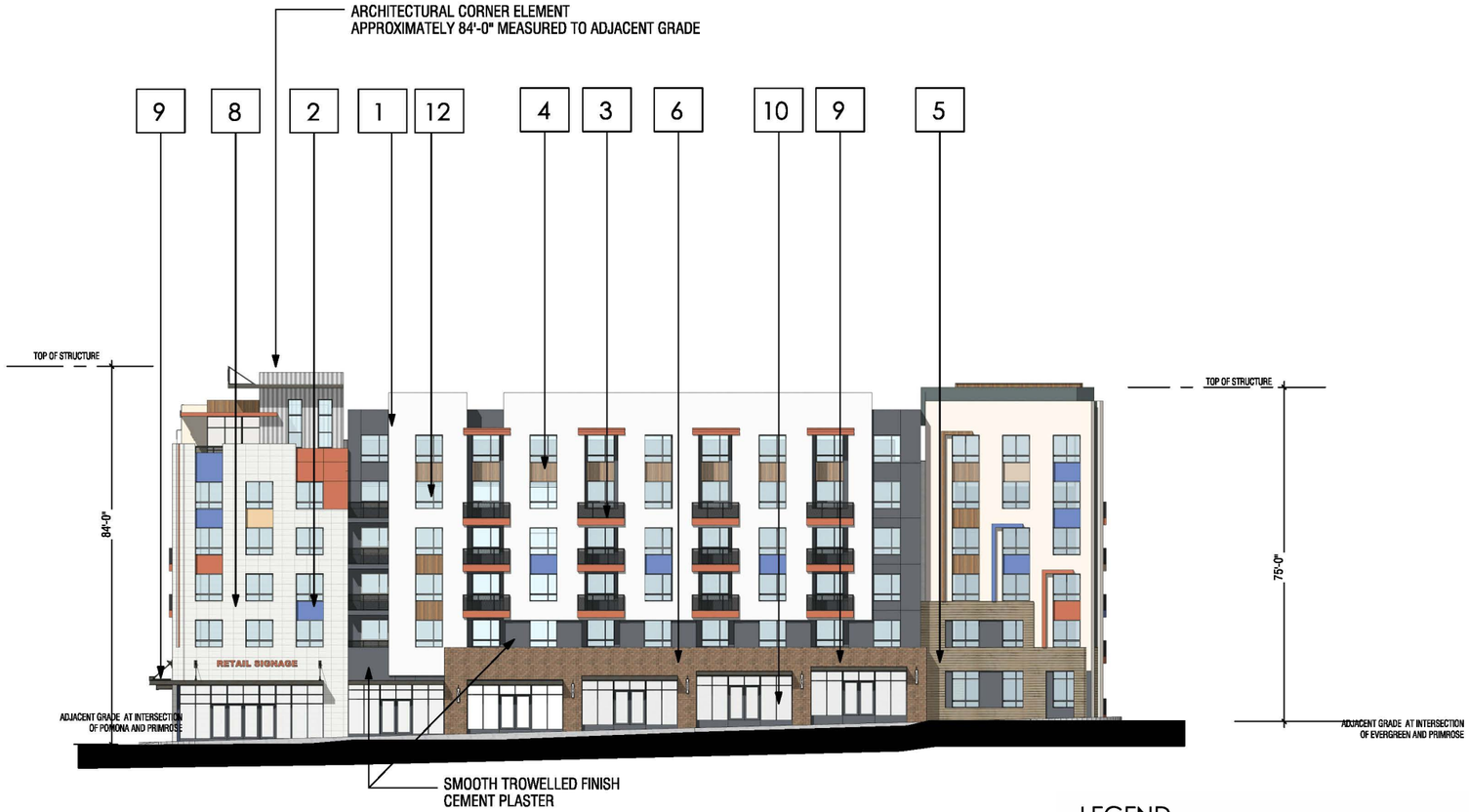
Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

LEGEND

1. EXTERIOR PLASTER
2. ACCENT COLOR PLASTER
3. BALCONY TRIM & RAILING
4. ACCENT WOOD SIDING
5. RUSTIC WOOD SIDING
6. BROWN BRICK
7. DARK BRICK
8. WHITE PORCELAIN TILE
9. METAL CANOPY
10. STOREFRONT GLAZING
11. ART MURAL
12. VINYL WINDOWS
13. CORRUGATED METAL PANELS

Figure 3-5 South Elevation

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EAST ELEVATION - PRIMROSE AVENUE

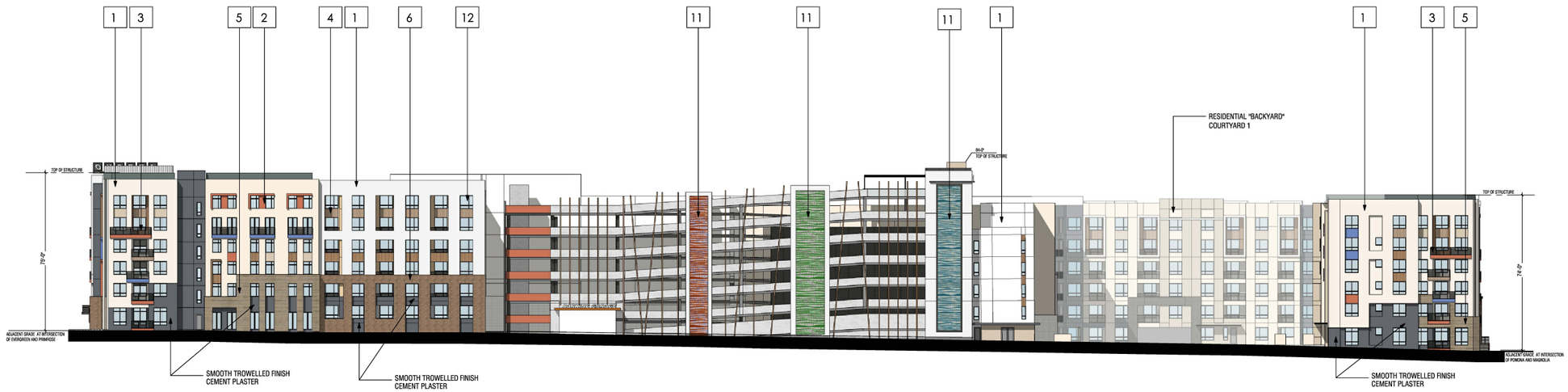
Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

LEGEND

1. EXTERIOR PLASTER
2. ACCENT COLOR PLASTER
3. BALCONY TRIM & RAILING
4. ACCENT WOOD SIDING
5. RUSTIC WOOD SIDING
6. BROWN BRICK
7. DARK BRICK
8. WHITE PORCELAIN TILE
9. METAL CANOPY
10. STOREFRONT GLAZING
11. ART MURAL
12. VINYL WINDOWS
13. CORRUGATED METAL PANELS

Figure 3-6 East Elevation

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NORTH ELEVATION - EVERGREEN AVENUE

Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

LEGEND

1. EXTERIOR PLASTER
2. ACCENT COLOR PLASTER
3. BALCONY TRIM & RAILING
4. ACCENT WOOD SIDING
5. RUSTIC WOOD SIDING
6. BROWN BRICK
7. DARK BRICK
8. WHITE PORCELAIN TILE
9. METAL CANOPY
10. STOREFRONT GLAZING
11. ART MURAL
12. VINYL WINDOWS
13. CORRUGATED METAL PANELS

Figure 3-7 North Elevation

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WEST ELEVATION - MAGNOLIA AVENUE

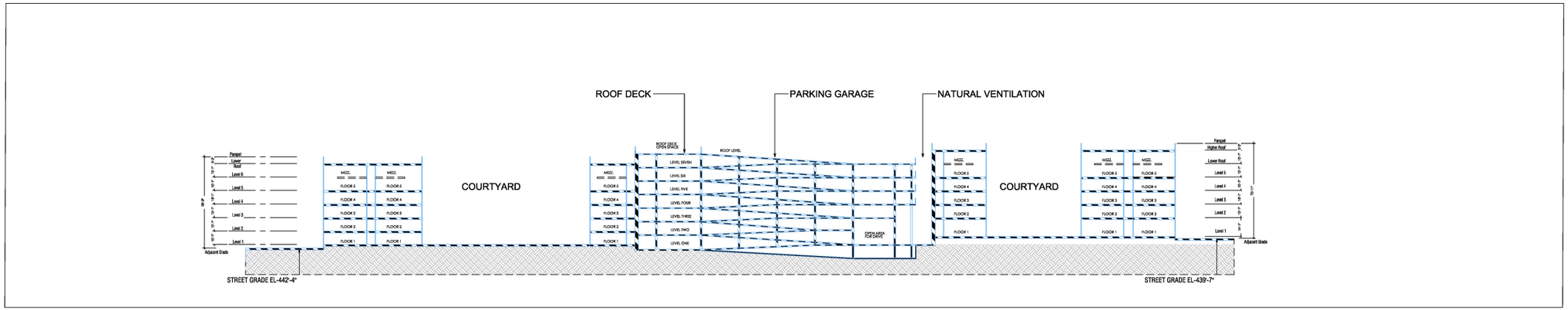
Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

LEGEND

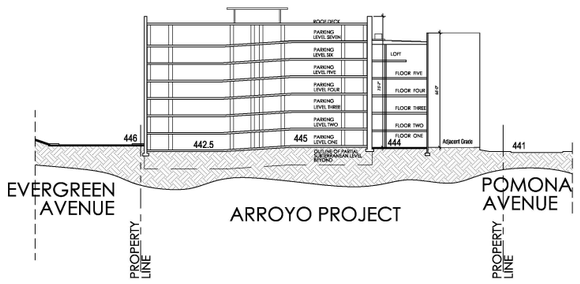
1. EXTERIOR PLASTER
2. ACCENT COLOR PLASTER
3. BALCONY TRIM & RAILING
4. ACCENT WOOD SIDING
5. RUSTIC WOOD SIDING
6. BROWN BRICK
7. DARK BRICK
8. WHITE PORCELAIN TILE
9. METAL CANOPY
10. STOREFRONT GLAZING
11. ART MURAL
12. VINYL WINDOWS
13. CORRUGATED METAL PANELS

Figure 3-8 West Elevation

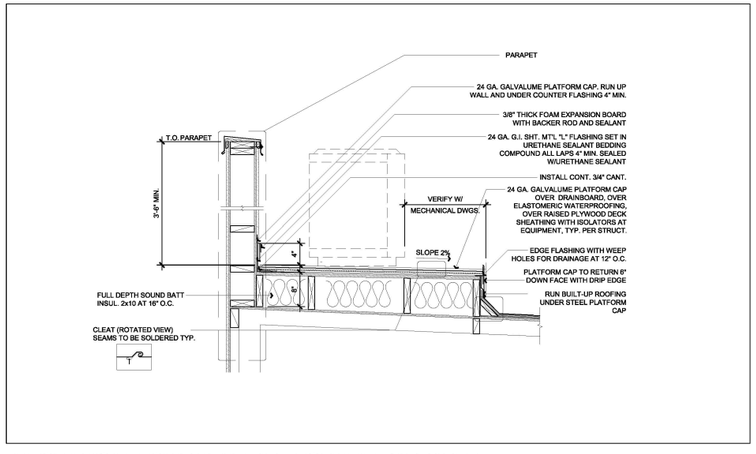
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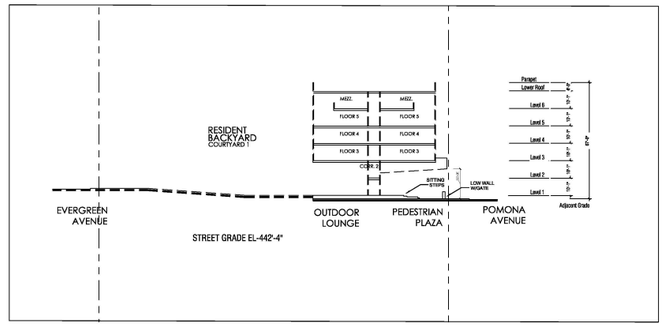
BUILDING SECTION 1



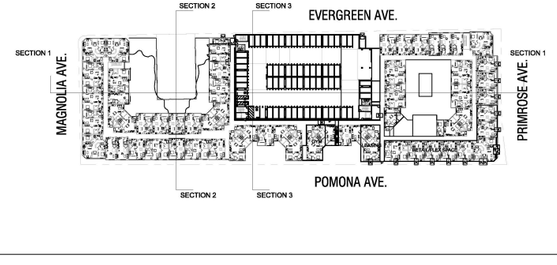
BUILDING SECTION 3



MECHANICAL EQUIPMENT PLATFORM AT PARPAPET



BUILDING SECTION 2

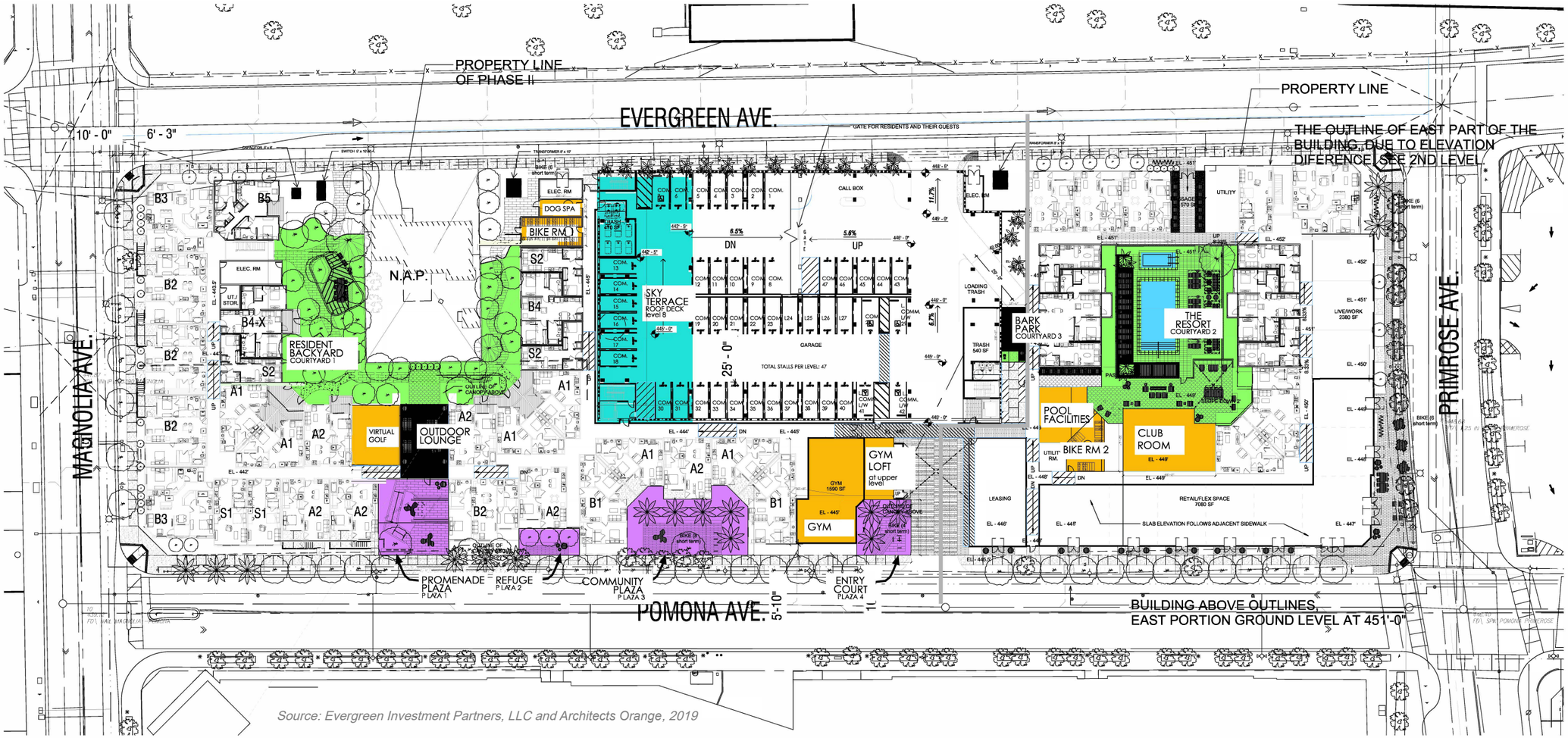


KEY PLAN N.T.S.

Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-9 Building Sections

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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

LEGEND

- PUBLIC OPEN SPACE: 4,654 SF
- RESIDENTIAL EXTERIOR OPEN SPACE (including roof deck): 18,426 SF
- RESIDENTIAL INTERIOR AMENITY SPACE: 7,220 SF

PUBLIC SPACE SF

PROMENADE PLAZA PLAZA 1	1,439
REFUGE PLAZA 2	437
COMMUNITY PLAZA PLAZA 3	1,972
ENTRY COURT PLAZA 4	806
TOTAL	4,654

AMENITY SPACE (Interior) SF

GYM	1,682
GYM LOFT	487
BIKE RM. 1	480
BIKE RM 2	429
CLUB ROOM	1,480
VIRTUAL GOLF	800
DOG SPA	194
POOL FACILITIES	696
OUTDOOR LOUNGE	972
TOTAL	**7,220**

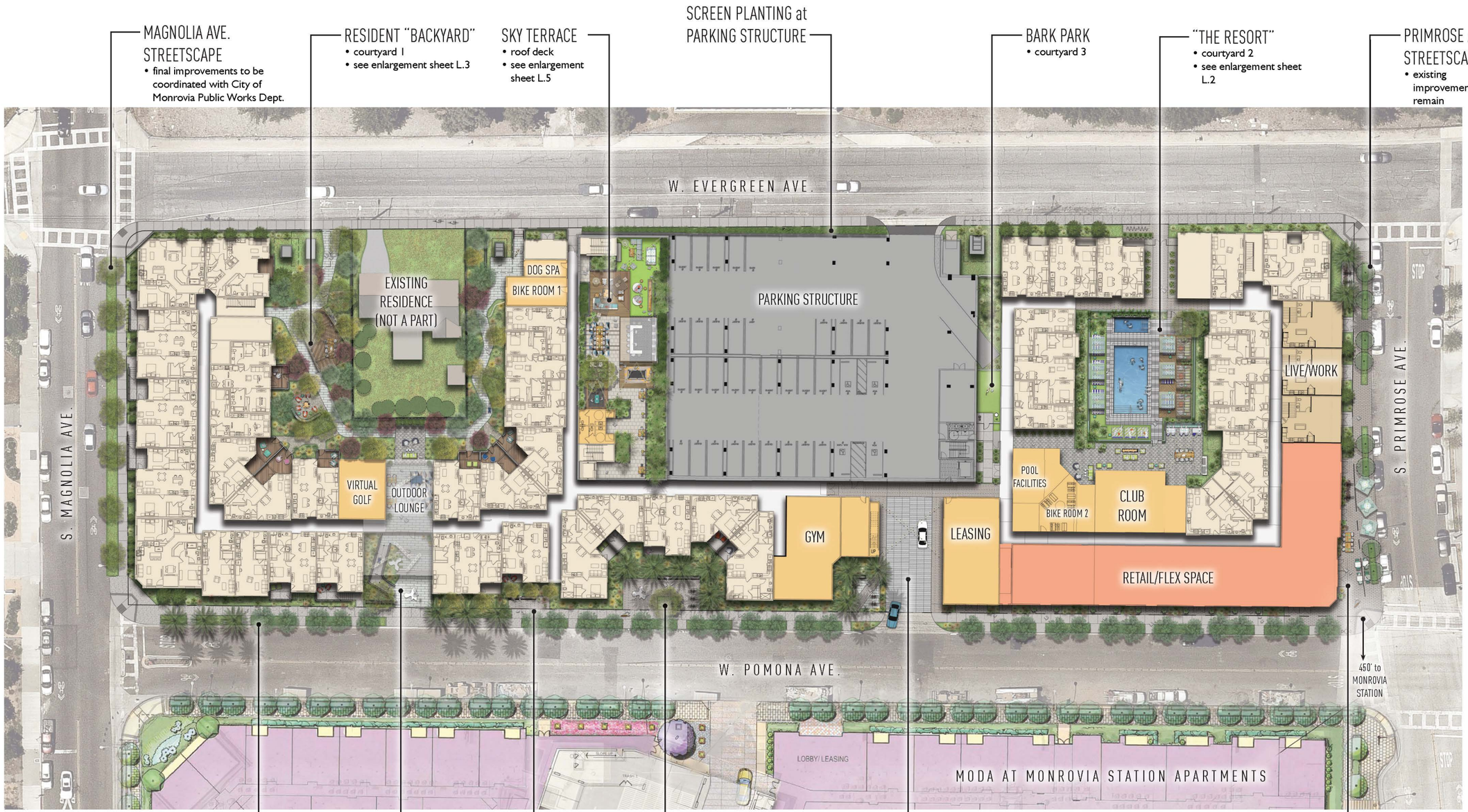
AMENITY SPACE (Exterior) SF

THE RESORT COURTYARD 1	6,362
RESIDENT BACKYARD COURTYARD 2	6,305
BARK PARK COURTYARD 3	349
SKY TERRACE ROOF DECK	5,410
TOTAL	**18,426**

Figure 3-10 Open Space Plan

Arroyo at Monrovia Station Specific Plan Draft EIR

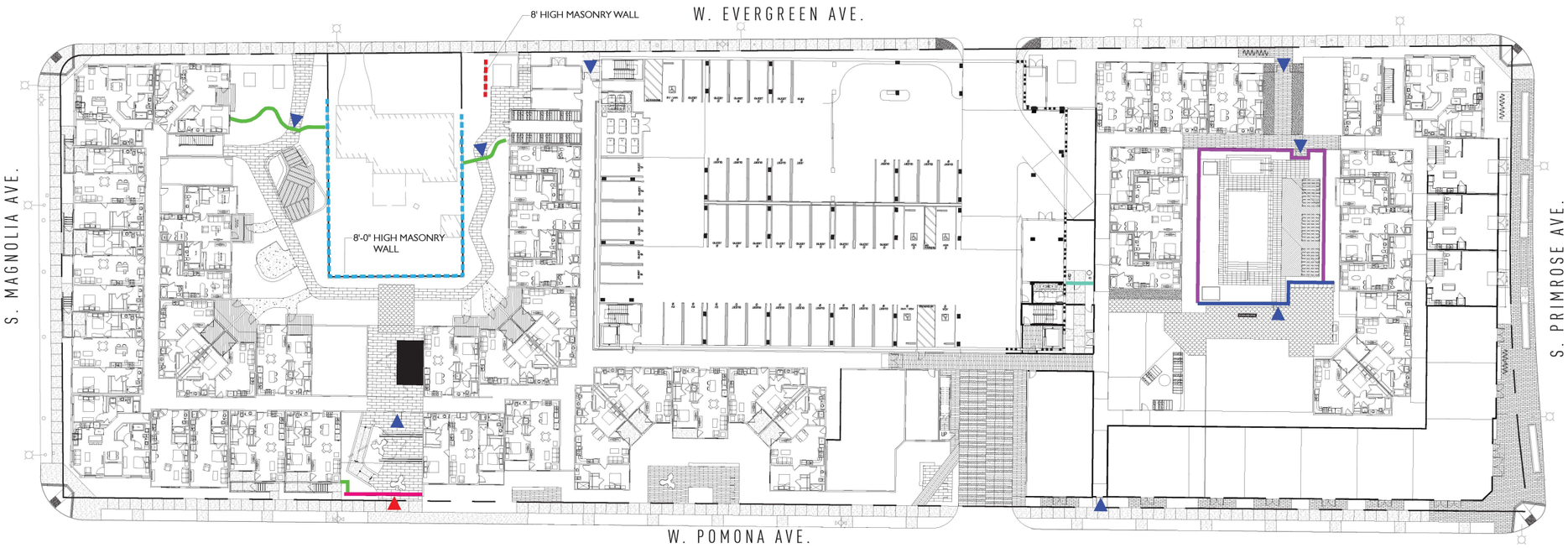
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Source: Evergreen Investment Partners, LLC and MJS Landscape Architecture, 2019

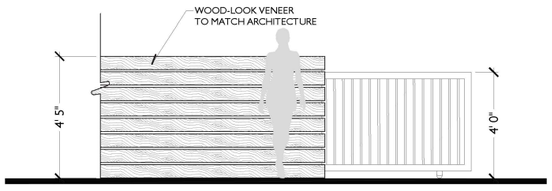
Figure 3-11 Landscape Plan

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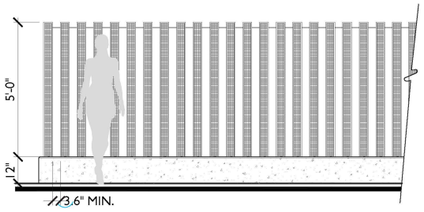


PRIVATE ACCESS GATE

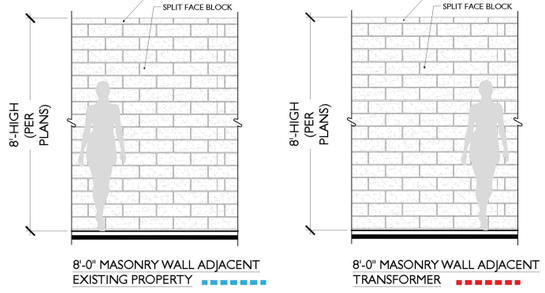
PUBLIC ACCESS GATE



C SLIDING GATE
4'-5"- 4'-0" HIGH — Scale: 1/2"=1'-0"



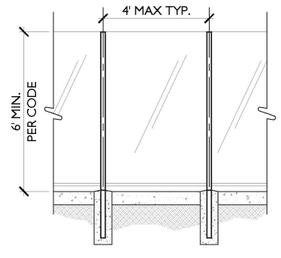
B CURVILINEAR LOUVER FENCING
6' HIGH — Scale: 1/2"=1'-0"



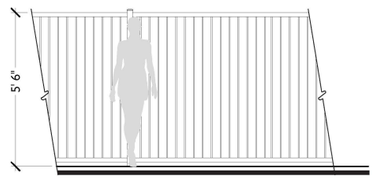
A MASONRY WALL
Scale: 1/2"=1'-0"



F TUBULAR STEEL DOG PARK GATE
48" HIGH — Scale: 1/2"=1'-0"



E GLASS POOL ENCLOSURE
6' HIGH — Scale: 1/2"=1'-0"

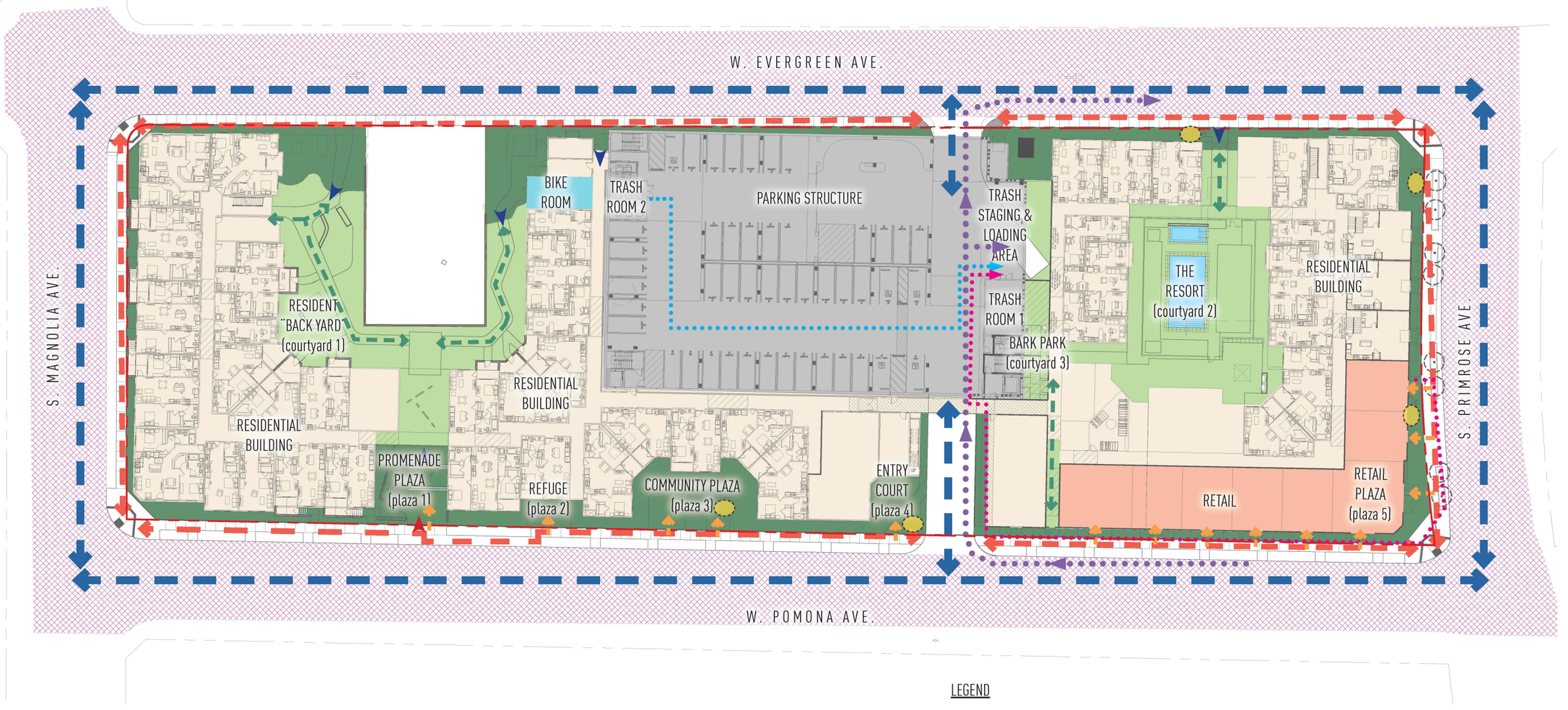


D TUBULAR STEEL POOL ENCLOSURE
5'-6" HIGH — Scale: 1/2"=1'-0"

Source: Evergreen Investment Partners LLC, MJS Landscape Architecture, 2019

Figure 3-12 Perimeter Walls and Fencing

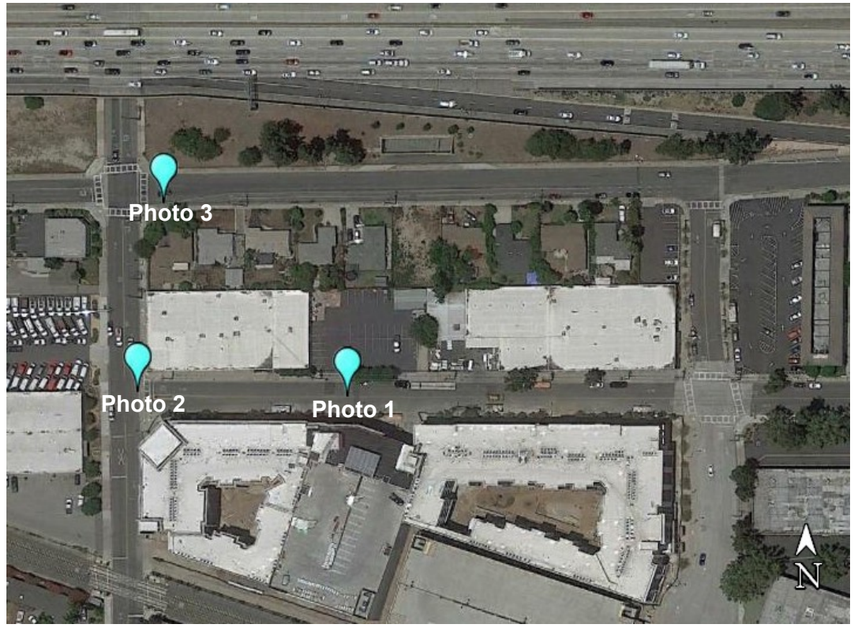
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Source: Evergreen Investment Partners, LLC and MJS Landscape Architects, 2019

Figure 3-13 Mobility Plan

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Map of Photo Locations



Photo 1 View from Pomona Avenue looking west.



Photo 2 View from Pomona Avenue looking east.



Photo 3 View from W. Evergreen Avenue looking east.

Figure 3-14 Site Photos

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1. VIEW LOOKING NORTHWEST ON CORNER OF PRIMROSE AVENUE AND POMONA AVENUE.



2. VIEW LOOKING WEST ALONG PRIMROSE AVENUE.



Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-15 3D Rendering 1

Arroyo at Monrovia Station Specific Plan Draft EIR

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3. VIEW LOOKING AT LEASING AND FITNESS ALONG POMONA AVENUE.



4a. CLOSE UP VIEW OF PROMENADE PLAZA



4. VIEW LOOKING AT PASSAGE WAY PORTAL ALONG POMONA AVENUE.



Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-16 3D Rendering 2

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5. VIEW LOOKING NORTHEAST ON CORNER OF MAGNOLIA AVENUE AND POMONA AVENUE.



6. VIEW FROM FREEWAY LOOKING AT BILLBOARD ON EVERGREEN AVENUE.



Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-17 3D Rendering 3

Arroyo at Monrovia Station Specific Plan Draft EIR

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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-18 View Simulation 1: Existing Building

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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-19 View Simulation 1: With Proposed Building

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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-20 View Simulation 2: Existing Building

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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-21 View Simulation 2: With Proposed Building

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EVERGREEN VIEW 3 LOOKING SOUTH EAST
AFTER



EVERGREEN VIEW 4 LOOKING SOUTH
AFTER



EVERGREEN VIEW 3 LOOKING SOUTH EAST
BEFORE



EVERGREEN VIEW 4 LOOKING SOUTH
BEFORE



Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 3-22 View Simulations 3 and 4: Existing and Proposed

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4. INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

4.1 EVALUATION OF IMPACTS

Pursuant to CEQA, this EIR evaluates the environmental impacts associated with the Project and identifies mitigation measures to reduce significant impacts to less than significant levels, if feasible. This EIR examines the proposed Arroyo at Monrovia Station Specific Plan at a project-specific level of detail.

4.1.1 Impact Assessment Baseline

CEQA Guidelines Sections 15125(a) and (e) provide that the existing environmental setting (the environmental conditions in the Project vicinity at the time the environmental analysis is begun) should constitute the baseline physical conditions by which it is determined whether an impact is significant. Pursuant to this guideline, all impact assessments in this EIR are based upon comparison of the projected future "With Project" conditions (i.e., buildout of the Arroyo at Monrovia Station Specific Plan) with the existing environmental setting. In addition, this EIR compares anticipated future conditions with the Project versus future conditions under a “No Project” scenario, (i.e., if the Project were not approved) in Chapter 21 (Alternatives) of this EIR.

4.1.2 Impact Assessment Assumptions

The purpose of this EIR is to evaluate the likely environmental consequences of the Project, as described in Chapter 3, and to identify mitigation measures and alternatives that could minimize or avoid potentially significant adverse environmental impacts and/or to increase beneficial effects.

4.2 “SIGNIFICANT IMPACTS” AND OTHER KEY EIR TERMINOLOGY

This EIR identifies the “significant impacts” of the Project and corresponding mitigation measures that would avoid or reduce those impacts to a less than significant level. Where it is determined in this EIR that a particular impact cannot be avoided or reduced to a less than significant level by the identified mitigation measures, the EIR identifies that impact as a "significant unavoidable impact." Significant unavoidable impacts are also discussed in Chapter 22 (CEQA Mandated Sections) of this EIR. These terms ("significant," "unavoidable," "mitigation") and other key CEQA terminology used in this EIR are defined in Table 4-1.

Table 4-1 Definitions of Key EIR Terminology

Significant/Potentially Significant Impact	"Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant. (CEQA Guidelines, Section 15382).
Significant Cumulative Impact	"Cumulative impacts" are defined as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. (CEQA Guidelines, Section 15355).
Unavoidable Significant Impact	"Unavoidable significant impacts" are defined as those significant adverse environmental impacts for which either no mitigation or only partial mitigation is feasible. If a project is to be approved that will result in in the occurrence of significant effects which are identified in the EIR but are not avoided or substantially lessened, the Lead Agency must include in the record of the project approval a written statement of the specific reasons to support its action (i.e., a "statement of overriding considerations") (CEQA Guidelines, Sections 15126.2[b] and 15093[b]).
Significance Criteria	The criteria used in this EIR to determine whether an impact is or is not *"significant"* are based on (a) CEQA-stipulated "mandatory findings of significance" (i.e., where any of the specific conditions occur under which the Legislature and the Secretary of Resources have determined to constitute a potentially significant effect on the environment, which are listed in CEQA Guidelines Section 15065); (b) specific criteria that a Resources Agency has determined are "normally" considered to constitute a "significant effect on the environment;" (c) the relationship of the project effect to the adopted policies, ordinances and standards of the Lead Agency and of responsible agencies; and/or (d) commonly accepted practice and the professional judgment of the EIR authors and Lead Agency staff.
Mitigation Measures	For each significant impact, the EIR must identify a specific "mitigation" measure or set of measures capable of (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation or maintenance operations during the life of the action; or (e) compensating for the impact by replacing or providing substitute resources or environments. (CEQA Guidelines, Section 15370).

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report

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5. AESTHETICS AND VISUAL RESOURCES

This EIR Chapter describes existing visual and scenic resources in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

5.1 SETTING

The environmental and regulatory setting of the Project area with respect to aesthetics and visual resources is described based on local, State and Federal regulations.

5.1.1 Environmental Setting

The City of Monrovia is located in the San Gabriel Valley. The northern portion of the City extends into the foothills of the San Gabriel Mountains and abuts the Angeles National Forest. The terrain in Monrovia slopes to the south from the foothills. The San Gabriel Mountains are the most dominant visual feature in Monrovia and serve as a backdrop of views to the north. The mountains are visible from most parts of Monrovia and are most notable along north-south arterial roadways, such as Myrtle Avenue.

The Project is located within the southern part of the City and contains a variety of uses built primarily in the post-World War II era including light industrial structures, single-family residences, one vacant parcel, and two asphalt-covered parking lots. The existing buildings are typical of the post-war era and have limited aesthetic value.

The Parks at Station Square Specific Plan (now known as MODA at Monrovia Station) and Station Square South Specific Plan lie south of Pomona Avenue (the railroad tracks separate the two). MODA at Monrovia Station is a recently constructed 5-story residential development containing 261 units on a 2.82 acre site. Resident and guest parking is provided in an attached seven-level parking structure (one subterranean level and six above ground). The development varies in height between 44 feet and 75 feet, and the building design reflects a contemporary architectural style. The articulation of horizontal and vertical surfaces, fenestration and openings, color, texture, and the use of varied materials reduce the appearance of undifferentiated massing. Exterior materials consist of metal, ceramic tile, and textured stucco. The Station Square South Specific Plan lies south of the MODA at Monrovia Station apartments, and consists of a 3.79 acre project site approved for development of a transit-oriented development consisting of 296 residential units, including 6-live work units, public open space, a publicly accessible driveway, and drop-off area for the adjacent Metro Gold Line Station in a portion of Peck Road, and parking.

The area immediately north of the Project area (i.e., north of West Evergreen Avenue) comprises a narrow strip of vacant Caltrans right-of-way and then Interstate-210. There are no scenic highways near the Project. The areas immediately east of the Project area, across South Primrose Avenue, and immediately west, across South Magnolia Avenue, contain commercial uses and light industrial uses that are currently proposed for a multifamily development.

The main sources of nighttime light and glare in areas near the Project include lighting of building interiors, security lighting (i.e., for parking lots), street lights, lighting of the I-210, and headlights

along roadways and the I-210. Daytime glare is produced by the use of reflective materials, such as reflective glass and metals, in building exteriors. Glare from car headlights can also occur at night. Windows and materials in existing buildings are potential sources of glare in the Project area, but there are no known issues with glare from existing buildings. Headlights from the I-210 are also a known potential source of glare in the Project area, but the I-210 is elevated from the base elevation of the Project site by approximately 30 feet and a sound wall exists between traffic along the I-210 and Evergreen Avenue. Therefore, glare from car headlights are not likely to impact existing land uses in the Project area.

5.1.2 Regulatory Setting

Federal

National Scenic Byways Program

The National Scenic Byways program is part of the U.S. Department of Transportation, Federal Highway Administration. The program was established under the Intermodal Surface Transportation Efficiency Act of 1991 and was reauthorized in 1998 under the Transportation Equity Act for the 21st Century. Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities. The only National Scenic Byway located within southern California is the Arroyo Seco Historic Parkway – Route 110 in Los Angeles County. The National Scenic Byway is not located near the proposed Project.

State

State Scenic Highway Program

The State Scenic Highway Program, created by the California Legislature in 1963, was established to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. A scenic highway is designated under this program when a local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. When a City or County nominates an eligible scenic highway for official designation, it defines the scenic corridor, which is land generally adjacent and visible to a motorist on the highway. State Laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. There are no State Scenic Highways in the vicinity of the Project.

Local

Monrovia General Plan

The following policies of the General Plan Land Use Element are applicable to the proposed Project:

> **Policy 4.1:** Require new developments in established neighborhoods to consider the established architectural styles, development patterns, building materials, and scale of buildings within the vicinity of the proposed project.

Policy 4.2: Require all new development to consider existing uses in terms of neighborhood disruption, buffering, architectural styles, building materials, development patterns, and scale of buildings within the vicinity of the proposed project.
Policy 9.3: Continue to monitor development standards in single family and multi-family residential districts, including setbacks, height, density, and required open space, in order to ensure that new development is compatible with the scale and character of existing development.
Policy 13.3: In commercial and industrial areas designated Planned Development, develop architectural, site design, and landscape guidelines.

Monrovia Zoning Code

Section 17.32.080 of the Monrovia Zoning Code requires that lighting, where provided to illuminate private property, must be arranged to reflect away from adjoining property or any public way and to be arranged so as not to cause a nuisance either to highway traffic or to the living environment. Section 17.32.090 of the Zoning Code relates to glare. Specifically, no direct or reflected glare shall be visible from the property boundary line. Sky-reflected glare shall not inconvenience or annoy persons or interfere with the use and enjoyment of property in and about the area where it occurs.

The Monrovia Zoning Code (Section 17.12.010[G][9]) defines "sensitive areas" requiring visual impact analyses for new development in areas "which are higher in elevation and visually exposed to the city-at-large and could potentially impact existing city-at-large view sheds," however, these areas are only defined in hillside areas. Otherwise, the Zoning Code has no definition of a scenic vista.

Monrovia Neighborhood Compatibility Design Review Process

Section 17.12.005 of the Residential Development Standards in the Monrovia Zoning Code requires Neighborhood Compatibility Design Review for all proposed new residential units, and additions affecting a certain percentage of the existing structure, in a residential zone or a PD Zone designated for residential development to ensure that such structures are found to be compatible with the neighborhood within which it is located. The purpose and intent of the City's design review process is as follows:

(A) Purpose and intent. The preservation of the character of Monrovia's neighborhoods is an important goal for the community. The purpose of this chapter is to integrate new development into the context and character of existing neighborhoods to achieve compatibility. The tools implemented to address compatibility area intended to provide an approach that balances the desires of the property owner to develop his or her property with the concerns of surrounding residents to maintain the character of their neighborhood.

(1) The purpose and intent of the neighborhood compatibility design review is:
(a) To preserve the character and charm of the city and its neighborhoods by establishing processes and criteria to review new construction to assure that the resulting structures are compatible with the neighborhood within which they are located.
(b) To provide reasonable review of proposals to maximize compatibility with the unique character of the neighborhood in terms of mass, scale, height, and design, while generally maintaining neutrality regarding the architectural style of the proposed development.

(c) To minimize privacy impacts of new two-story construction upon neighboring properties while still maintaining good design.
(d) To provide a review process to regulate the development or redevelopment of properties within existing neighborhoods so as to maximize visually compatible relationships, and bright, open neighborhoods.
(e) To educate applicants regarding their obligation to take into consideration the potential impacts on their neighbors when modifying structures or proposing new structures and take reasonable steps to mitigate such impacts.

(2) It is not the intent of this chapter to unreasonably restrict or regulate the right of an individual property owner to determine the type of structure or addition desired.

(3) The neighborhood compatibility design review process is intended to be an integral part of the overall design process that should commence with the city staff and the applicant prior to the preparation of any design concepts.

(4) The regulations in this section are in addition to the requirements of other regulations or ordinances of the city and where in conflict the more restrictive regulations shall apply.

According to Section 17.12.005 of the Residential Development Standards in the Monrovia Zoning Code, the City's Design Review Committee shall review applicable developments for neighborhood compatibility using the following criteria:

(1) Exterior material review.
(a) Building materials and finishes on exterior surfaces;
(b) Architectural integrity of the proposed project.

(2) Site planning/site design.
(a) Orientation of the building(s) on the site and in relation to surrounding property improvements, including entrances, parking areas, and driveways;
(b) Garage and parking locations, driveway and driveway approach locations;
(c) Onsite building relationships;
(d) Landscaping.

(3) Building form.
(a) Roof designs and materials;
(b) The height and building profile of the structures;
(c) Mass, bulk, modulation, scale and articulation.

(4) Architectural features/design. All exterior facade and architectural features including window types, entrance areas, porches, chimneys, and the use of building modulation.

(5) Neighbor impact review.
(a) The scale and bulk of the building(s) in relationship to the neighboring properties, including the location and orientation of second stories;
(b) Reasonably minimizes privacy impacts;
(c) Solar access;
(d) Grade differential.

(6) Neighborhood compatibility review.

(a) Relationship of development to the surrounding neighborhood such as appropriate mass, architectural features, scale, and building materials;
(b) Prevailing/predominant development patterns.

5.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts on aesthetic or visual resources that could result from the proposed Project. The Section also recommends mitigation measures as needed to reduce significant impacts.

5.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items I (a) through (d), implementation of the proposed Project would have a significant impact related to aesthetics and visual resources if it would:

(a) Have a substantial adverse effect on a scenic vista;

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

(c) Substantially degrade the existing visual character or quality of public views of the site or its surroundings (public views are those that are experienced from publicly accessible vantage points); or

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

The proposed Project qualifies as a mixed-use residential project on an infill site within a transit priority area and therefore, falls under Sections 21099(d)(1) and (2) of CEQA which state:

"(d)(1) Aesthetic and parking impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment.

(2) (A) This subdivision does not affect, change, or modify the authority of a lead agency to consider aesthetic impacts pursuant to local design review ordinances or other discretionary powers provided by other laws or policies.

(B) For the purposes of this subdivision, aesthetic impacts do not include impacts on historical or cultural resources."

5.2.2 Analysis Methodology

The following definitions are used in the impact analysis on aesthetics and visual resources for the Project:

Scenic Vista. A "scenic vista" is not defined in CEQA or the Monrovia Municipal Code or General Plan. For the purposes of this analysis, a scenic vista is defined as "a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public providing or

relating to views of impressive or beautiful natural scenery where a vista is defined as 'a distant view through or along an avenue or opening.'"

Scenic Resources. "Scenic resources" are referred to in CEQA as "trees, rock outcroppings, and historic buildings within view from a state scenic highway." A "scenic resource" is not defined in the Monrovia Municipal Code or General Plan. For the purposes of this analysis, a "scenic resource" is defined as a state scenic highway, National Scenic Byway, National Scenic Trail, National Scenic Area, or state or federal designated natural or wilderness area.

Glare. According to the American National Standards Institute (ANSI)/Illuminating Engineering Society (IES) RP-16-17 Nomenclature and Definitions for Illuminating Engineering, glare is defined as "The sensation produced by luminances within the visual field that are sufficiently greater than the luminance to which the eyes are adapted to cause annoyance, discomfort, or loss in visual performance or visibility" where "The magnitude of the sensation of glare depends on such factors as the size, position and luminance of a source; the number of sources; and the luminance to which the eyes are adapted."

The methodology for evaluating potential environmental impacts on aesthetics and visual resources followed this basic sequence:

(1) City documents were reviewed to identify existing environmental conditions and problems related to aesthetics and visual resources**,** including the regulatory framework that applies to these issues.

(2) View simulations were prepared for the Arroyo at Monrovia Station Specific Plan and used for the impact analysis on public views of scenic vistas. Visual simulations are shown in Chapter 3 and included in the plan set for the Specific Plan contained in Appendix M.

(3) 3D Renderings were prepared for the Arroyo at Monrovia Station Specific Plan and used for the impact analysis on visual character. 3D Renderings are shown in Chapter 3 and included in the plan set for the Specific Plan contained in Appendix M.

(4) A shade and shadow analysis was conducted for the Arroyo at Monrovia Station Specific Plan and used for the impact analysis on light, glare, shade, and shadows. The result of the shade and shadow analysis are shown in Figures 5-1 through 5-10 and included in the plan set for the Arroyo at Monrovia Station Specific Plan contained in Appendix M.

(5) The CEQA Statute and Guidelines, including Appendix G (Environmental Checklist Form), were consulted to identify environmental impact topics and issues that should be addressed.

(6) The Project was analyzed to determine if any significant impacts to aesthetics and visual resources would occur.

(7) For potential environmental impacts, mitigation measures were designed to avoid or reduce each impact to a less than significant level, where possible.

5.2.3 Environmental Impacts

IMPACT AES-1 IMPACTS ON SCENIC VISTAS

Scenic vistas can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (e.g., development on a scenic hillside).

As stated above, Section 17.12.010 of the Monrovia Municipal Code provides development standards for protection of scenic vistas, however, these are applicable only to hillside areas (Residential Foothill Zone) where views are more pronounced due to topography. Therefore, for the purposes of this analysis, a scenic vista can be defined as "a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public providing or relating to views of impressive or beautiful natural scenery where a vista is defined as 'a distant view through or along an avenue or opening." A "substantial adverse effect" would involve a significant interruption of a public panoramic view.

Development on the Project site would not have a substantial adverse effect on a scenic vista, as the Project vicinity is an urbanized environment that does not afford expansive scenic views and has no aesthetic features such as prominent ridges. The Project site is relatively flat. Limited views of the San Gabriel Mountains, approximately two miles to the north, are available along Magnolia Avenue as seen in view simulations shown in Chapter 3. However, these views are often obscured by street trees, existing buildings, and other structures. Therefore, impacts on scenic vistas from buildout of the Project would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT AES-2 IMPACTS ON SCENIC RESOURCES

No scenic resource would be impacted by the Project. A section of the I-210 is eligible for state highway designation, however, this eligible section is west of the City of Monrovia. The City of Monrovia has no local scenic roadways designated in its General Plan, and there are no scenic resources onsite or adjacent to the Project such as rock outcrops or trees that have scenic value. Therefore, there would be no impact on scenic resources.

Mitigation Measures

No mitigation measures are required.

IMPACT AES-3 IMPACTS ON VISUAL CHARACTER

The proposed Project would involve changing the visual character of the existing Project area from a low-density residential and industrial character to a high-density mixed-use development. The Project area is currently comprised of one-story post-World War II structures. The Project area is surrounded on three sides by a mix of one-story post-World War II era and modern stucco homes and industrial buildings, with the exception of the MODA apartments, a 5-story apartment complex recently constructed along S. Magnolia south of the Project and near the METRO Gold Line tracks (as seen in photographs and 3D renderings shown in Chapter 3). The height, as well as the mass, bulk, and scale of future structures in the Project area have the potential to be

inconsistent with the style and scale of existing one-story buildings in the neighborhood. However, the mixed-use development is consistent with and implements the overall General Plan vision for Station Square Transit Village Planned Development Area (PD-12) to create a "dynamic, mixed-use, transit oriented community."

To ensure that Arroyo at Monrovia Station Specific Plan is compatible with the surrounding neighborhood in accordance the City's Neighborhood Compatibility Residential Design standards (Section 17.12.020 of the Monrovia Municipal Code) it includes key "Good Neighbor" development features that lessen the visual impacts on adjacent residential uses and incorporates the PD-12 Urban Design Objectives to enhance the development's visual quality.

The "Good Neighbor" development features are as follows:

- New walkable street frontages with aesthetically pleasing streetscape shall be provided around the entire Specific Plan's perimeter with access to public plazas along West Pomona Avenue; thereby, enhancing the visual quality of the entire neighborhood, including the viewshed of the adjacent multifamily residences;
- Improved pedestrian linkages along South Primrose Avenue, West Pomona Avenue, South Magnolia Avenue, and West Evergreen Avenue shall be provided, thereby enhancing pedestrian connectivity to the Gold Line transit station;
- New public plazas and open space on West Pomona Avenue shall be provided for neighbors and the public to enjoy;
- New retail and other businesses for residents, neighbors, and visitors to frequent will be provided, thereby enlivening the neighborhood while reducing vehicle trips;
- Sizeable setbacks (specifically, 20' on the east, 22' on the south, and 40' on the west) adjacent single-family home to create separation and buffer while allowing sunlight to shine on the adjacent residence and its yard;
- Building massing will be stepped back on the West Evergreen Avenue's top floor east of the adjacent single-family home;
- Residential units immediately east of the adjacent single-family home shall not have balconies to provide additional privacy to the single-family home and its yard;
- An 8-foot decorative masonry wall shall be constructed at the property line between the adjacent single-family home and the project to protect the single-family home's sense of privacy from the adjacent open space;
- Dense plantings will screen views of the proposed buildings and will buffer the adjacent single-family home, thereby, further reducing the visual scale of the proposed buildings;
- Extensive tree plantings around the entire buffering setback area on three sides of the adjacent single-family home will be provided to establish a landscape vista from the home and provide another layer of privacy. Most of the plantings adjacent to the single-family home shall be evergreen to ensure year-round buffer;
- An 8-foot sound wall adjacent to the transformer and a highly landscaped 10-foot setback between the sound wall and the adjacent single-family home shall be provided to lessen transformer's operation noise and improve aesthetics;
- All lighting sources shall be directed so that they do not fall outside of the areas to be lighted. Guards and shields shall be used to direct lighting away from adjacent properties;
- Landscape lighting sources for the landscape and paved areas shall be concealed so the lighting is indirect;
- Passive open space, rather than active open space or recreation, shall be programmed for open space areas next to the adjacent single-family home;

- Public open space and recreation areas adjacent to the single-family home and across the street from multifamily residences shall have limited operation hours (8:00 AM to 10:00 PM);
- Noise levels shall be observed and compliance with the City of Monrovia's Noise Ordinance (MMC Chapter 9.44) will be enforced;
- Unsightly power poles and lines along West Evergreen Avenue and sidewalk shall be removed, thus creating a new, beautiful streetscape within the public right-of-way and in front of the single-family home;
- Potential for the adjacent single-family home's residents to use the Arroyo at Monrovia Station's private open space and recreational amenities; and
- HVAC and other noise-generating mechanical equipment shall be selected for its lower noise emission, air emission, and energy-saving qualities. HVAC and all other noise-generating mechanical equipment is required to be located behind sound barriers, parapets, dense landscaping, etc. to reduce noise emissions.

The following Table 5-1 demonstrates how the Arroyo at Monrovia Station Specific Plan implements the Station Square Transit Village Planned Development Area's Urban Design Objectives from the City of Monrovia General Plan Land Use Element. Table 5-1 lists these objectives alongside Project features that implement each objective.

Table 5-1: Project Features Implementing Station Square Transit Village Planned Development Area's Urban Design Objectives

Station Square Transit Village Planned Development Area's Urban Design Objectives	**Project Features that Implement Corresponding Objective**
Urban spaces to include publicly accessible plazas and courtyards	"Good Neighbor" feature: • The development plan proposes approximately 4,654 square feet (sf) of publicly accessible open space, including new public plazas and open space on West Pomona Avenue.
Buffers to mitigate adverse impacts on adjacent residential uses	"Good Neighbor" features: • Sizeable setbacks will be provided on all sides of the adjacent single-family home to create separation and buffer while allowing sunlight to shine on the residence and its yard. • Building massing will be stepped back on the West Evergreen Avenue's top floor east of the single-family home; • Residential units to the immediate east of the adjacent single-family home and its yard will not have balconies to provide additional privacy. • An 8-foot decorative masonry wall located at the property line improving the adjacent single-family home's sense of privacy from the adjacent open space.

	• Dense plantings will screen views of the proposed buildings and will buffer the adjacent single-family home, thereby, further reducing the visual scale of the proposed buildings. • Extensive tree plantings will be incorporated around the entire buffering setback area on three sides of the adjacent single-family home to establish a landscape vista from the home and provide another layer of privacy. Most of the plantings adjacent to the single-family home are required to be evergreen to ensure year-round buffer. • An 8-foot sound wall adjacent to the transformer and a highly landscaped 10-foot setback between the sound wall and the adjacent single-family home will be installed to lessen transformer's operation noise and improve aesthetics.
Easily identifiable pedestrian access to structure entrances and key areas within the site from the street and sidewalk	• Efficient ADA accessible pedestrian circulation is provided throughout the development via multiple pedestrian access points and pathways. • Public pedestrian access to the live/work units and flex units is provided along the West Pomona Avenue and South Primrose Avenue's sidewalks. • Private pedestrian paths and five resident-only pedestrian access points are provided throughout the development. The resident-only pedestrian access points are located on West Pomona Avenue and on West Evergreen Avenue.
Communal and private open space areas for residents	• The development plan proposes approximately 18,426 sf of residents' common open space/recreation, 12,513 sf of residents' private open space, and 49,041 sf of landscaped areas as shown in Table 3-3 of the Project Description.
Ground floor commercial uses that are visually distinct from residential space above	• Project renderings depicted in Appendix M show a visually distinct commercial-oriented ground floor, which features glass wall expanses and glass double doors, compared to the upper residential floors, which feature smaller windows and private balconies. Furthermore, the plan set shows commercial and non-residential uses on the ground floor, including but not

	limited to commercial/flex space, a gym, and leasing office.
Residential components to incorporate upper floor balconies and windows that overlook the street and enliven the street elevation	• Project renderings depicted in Appendix M show street-facing private balconies and roof decks that overlook the street.

As shown in Table 5-1 above, the proposed Project complies with the objectives of the City of Monrovia's Station Square Transit Village, despite the change in visual character of the area as a result of the Project. In addition, the building's articulation, materials, and colors have also been designed to break up the building massing to maximize compatibility with the neighborhood as well. The final building plan check review process would further ensure that Project building height, massing, materials and colors are consistent with the proposed Arroyo at Monrovia Station Specific Plan. With implementation the "Good Neighbor" development features, impacts on the visual character of the neighborhood would be less than significant.

Finally, use of noise and construction barriers and/or temporary pedestrian walkways during construction of the Arroyo at Monrovia Station Specific Plan area have the potential to affect the visual character of the area over the short-term should the construction barriers or walkways not be properly maintained (e.g., become sites of graffiti or trash). Short-term impacts would be potentially significant. However, mitigation measure MM AES-1 would ensure that construction barriers and/or walkways are maintained and that any inappropriate material is removed.

Mitigation Measures

MM AES-1: Maintenance of Construction Barriers. Prior to issuance of any construction permits, the City of Monrovia (City) Community Development Director, or designee, shall verify that all construction plans include the following note: "During construction, the Construction Contractor shall ensure, through appropriate postings and daily visual inspections, that no unauthorized materials are posted on any temporary construction barriers or temporary pedestrian walkways, and that any such temporary barriers and walkways are maintained in a visually attractive manner. In the event that unauthorized materials or markings are discovered on any temporary construction barrier or temporary pedestrian walkway, the Construction Contractor shall remove such items within 48 hours." **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Community Development staff shall conduct periodic site inspections during construction.

IMPACT AES-4 LIGHT, GLARE, SHADE, AND SHADOWS

Light and Glare. Nighttime illumination of outdoor areas can affect people in several ways. For example, where intense lighting is viewed against a dark background, the contrast attracts the attention of the viewer and could be considered a nuisance (City of Monrovia 2008). Under low-light conditions, the human eye adjusts to the brightest light within the field of view. If the range of light intensity to which the eye is exposed is large, the eye will be relatively insensitive to the more dimly lighted areas within the field of view. In addition, increased illumination can affect the suitability of sleeping areas, use of outdoor areas at natural light levels, and privacy (City of Monrovia 2008). The degree of impacts may be related to the degree of change from the illumination levels to which people have become accustomed. Typical light sources include street lights, lights to illuminate large surface parking lots, light emitted from the interiors of buildings and residences, and headlights on roadways.

Glare is the discomfort or impairment of vision experienced when the image is excessively bright in relation to the general surroundings (City of Monrovia 2008). Glare created by lighting systems can be measured for impairment of view. A typical example of the effects of glare is automobile headlights. When viewed directly in front of a vehicle with the headlights on full beam, vision is impaired, resulting in disabling glare. However, when viewed from behind the light source, the same headlights would not impair vision. Glare is also produced by large glass structures or other reflective building materials. Glare can affect both day and nighttime views.

Development of the Project could produce new sources of light and/or glare that may potentially cause significant impacts during the daytime and/or nighttime. This is especially important given the proximity of the Project to the I-210. Impacts associated with glare range from simple nuisance to potentially dangerous situations (e.g. if glare is directed into the eyes of motorists). New development could introduce inappropriate lighting and/or use building materials that could cause inappropriate glare in the planning area. Such impacts can include but are not limited to:

- Excessive or inappropriately directed lighting that can adversely impact nighttime views by reducing the ability to see the night sky and stars.

- Glare caused from unshielded or misdirected lighting sources, such as a floodlight attached to the side of a single-family residence that could be oriented to shine into a neighbor's house.

- Reflective surfaces (e.g., polished metal) or reflective windows that can also cause glare that could impact nearby residences or people traveling along the I-210 or roadways adjacent to the development.

Section 17.32.080 of the Monrovia Municipal Code requires that lighting, where provided to illuminate private property, be arranged to reflect away from adjoining property or any public way and be arranged in a manner not to cause a nuisance either to highway traffic or the living environment. Buildout of The Arroyo at Monrovia Station Specific Plan is required to comply with this standard. In addition, the City's design review process will ensure that these standards will be complied with and that reflective building materials that would introduce a source of glare would not be utilized.

The Arroyo at Monrovia Station Specific Plan requires the following lighting standards:

- Lighting shall be an integral part of the design theme. Proper lighting design shall be used to have a positive effect on the appearance of the building and the perception of users, and to promote a safe and enjoyable nighttime pedestrian environment. Lighting will be provided in all parking, vehicular, and pedestrian circulation, loading, and storage areas. The lighting plan shall accommodate all operations and uses of the site. At a minimum, the lighting shall provide the following:

    - **Residential Areas.** All exterior residential lighting shall be designed to be decorative and unobtrusive. Lighting shall be designed to avoid glare into neighboring homes, public spaces, or into the night sky. Illumination of common open spaces shall be low profile.

    - **Area Lighting for Pedestrian Walkways and Plazas.** Lighting shall be directed to provide for safety without allowing stray light to intrude into windows of nearby residences or to create glare problems for nearby roadway traffic.

- "**Hidden Source" Lighting.** For certain prominent architectural features, hidden source lighting can be used to create dramatic effects, illuminating unique architectural or landscape features. Such lighting can be concealed in soffits, behind ledges or parapets, or set into landscape areas with the light directed at the element to be highlighted. Use of low, bollard-type lighting and/or landscape accent lighting is encouraged, especially in pedestrian areas.

- A lighting plan shall be submitted for the Planning Division's review and approval, and shall demonstrate that:

  - Lighting levels are sufficient to provide for pedestrian and parked vehicle safety and security, but not in any manner that adversely impacts adjacent properties and roadways;

  - Lighting is located to assure adequate light levels and create an even level of illumination;

  - Exterior lighting is architecturally integrated with the building style, materials, finishes, and color; and

  - Lighting is directed away from the single-family residence and its yard.

Through the implementation of these lighting standards, light and glare resulting from the proposed Project would be directed away from adjacent properties and roadways while also providing enough lighting for safe pedestrian and vehicular travel.

Nevertheless, lighting from the proposed parking structure under the Arroyo at Monrovia Station Specific Plan has the potential to direct light down on adjacent streets and properties, including the residence at 230 W. Evergreen Avenue. Other sources of light associated with the Project (e.g., pathway lighting, lighting of signage) also have the potential to direct light inappropriately. Therefore, development of the Project could generate a significant impact on aesthetics and visual resources in relation to glare and lighting if mitigation measures are not implemented. The following mitigation measures (MM AES-2 and MM AES-3) are required to reduce these potential impacts associated with light and glare to less than significant levels.

Shade and Shadow. A purpose and intent of the City's design review process is "To provide a review process to regulate the development or redevelopment of properties within existing neighborhoods so as to maximize visually compatible relationships, and bright, open neighborhoods." (Section 17.12.005[A][1][d] of the Monrovia Municipal Code). As illustrated in the plan set contained in Appendix M, the proposed maximum height of the residential building is 84 feet from the adjacent finished grade, and the proposed maximum height of the parking structure is 84 feet from the adjacent finished grade. Therefore, the proposed Project has the potential to cast significant shading on adjacent uses and streets.

A shade and shadow analysis was performed for the proposed development under the Arroyo at Monrovia Station Specific Plan to determine whether the development would cast shade or shadows on the adjacent residential community, including the adjacent single-family residence at 230 W. Evergreen Avenue, and to determine if the development would continue to allow for a "bright, open neighborhood." Modeling was performed to determine worst-case scenario effects which would occur mid-day on the summer solstice and fall solstice. Results of the shade and

shadow analysis are shown in Figures 5-1 through 5-10, as well as in the plan set contained in Appendix M. Figures 5-1 through 5-10 show the assessment results, which suggest that shadowing onto the single family residence at 230 W. Evergreen Avenue would not occur on the residential building itself, except at the edges of the building at 10:00 a.m. during the summer solstice and 10:00 a.m. and 2:00 p.m. during the fall equinox; however, shadowing would occur on small portions of the yard for much of the year and for most of the day during both solstice and equinox periods. Otherwise, the results indicate that the proposed development under the Arroyo at Monrovia Station Specific Plan would cast shade and shadows on existing roadways, but only during certain times of the year under a worst-case scenario. Therefore, the development would not have a significant shade and shadow effect on the overall neighborhood.

Finally, the Arroyo at Monrovia Station Specific Plan includes numerous "Good Neighbor" development features listed in detail above under Impact AES-3 and in Section 3.5 of the Project Description that lessen light, glare, shade, and shadow impacts on adjacent residential uses or provide new activities for nearby residents. Other good neighbor features enhance connectivity within the Monrovia Station Square neighborhood to the Gold Line station.

Mitigation Measures

MM AES-2: Reflective glass, metallic, and other highly reflective and glare producing materials, shall not be used in new building construction. **Requirements and Timing:** Materials shall be reviewed and approved of prior to issuance of building permits. Approved materials shall be printed on all construction drawings.

MM AES-3: Comprehensive Lighting Plan. Project lighting shall be directed and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Prior to issuance of a building permit, the Project Developer shall submit a comprehensive lighting plan for review and approval by the City Community Development Director, or designee. The lighting plan shall be prepared by a qualified engineer (i.e., an engineer who is an active member of the Illuminating Engineering Society of North America [IESNA]) and shall be in compliance with applicable standards of the City's Municipal Code. The lighting plan shall address all aspects of lighting, including infrastructure, onsite driveways, recreation, safety, signage, and promotional lighting, if any. The lighting plan shall include the following in conjunction with other measures, as determined by the illumination engineer:

- Exterior onsite lighting shall be shielded and confined within site boundaries.
- No direct rays or glare are permitted to shine onto public streets or adjacent sites.
- Lighting fixtures that blink, flash, or emit unusual high intensity or brightness shall not be permitted.
- The site shall not be excessively illuminated based on the illumination recommendations of the IESNA.

Requirements and Timing: The Lighting Plan shall be reviewed and approved prior to issuance of building permits. **Monitoring:** The City's Community Development Director, or designee, shall review and approve the Lighting Plan prior to issuance of building permits.

5.2.4 Impact Conclusions

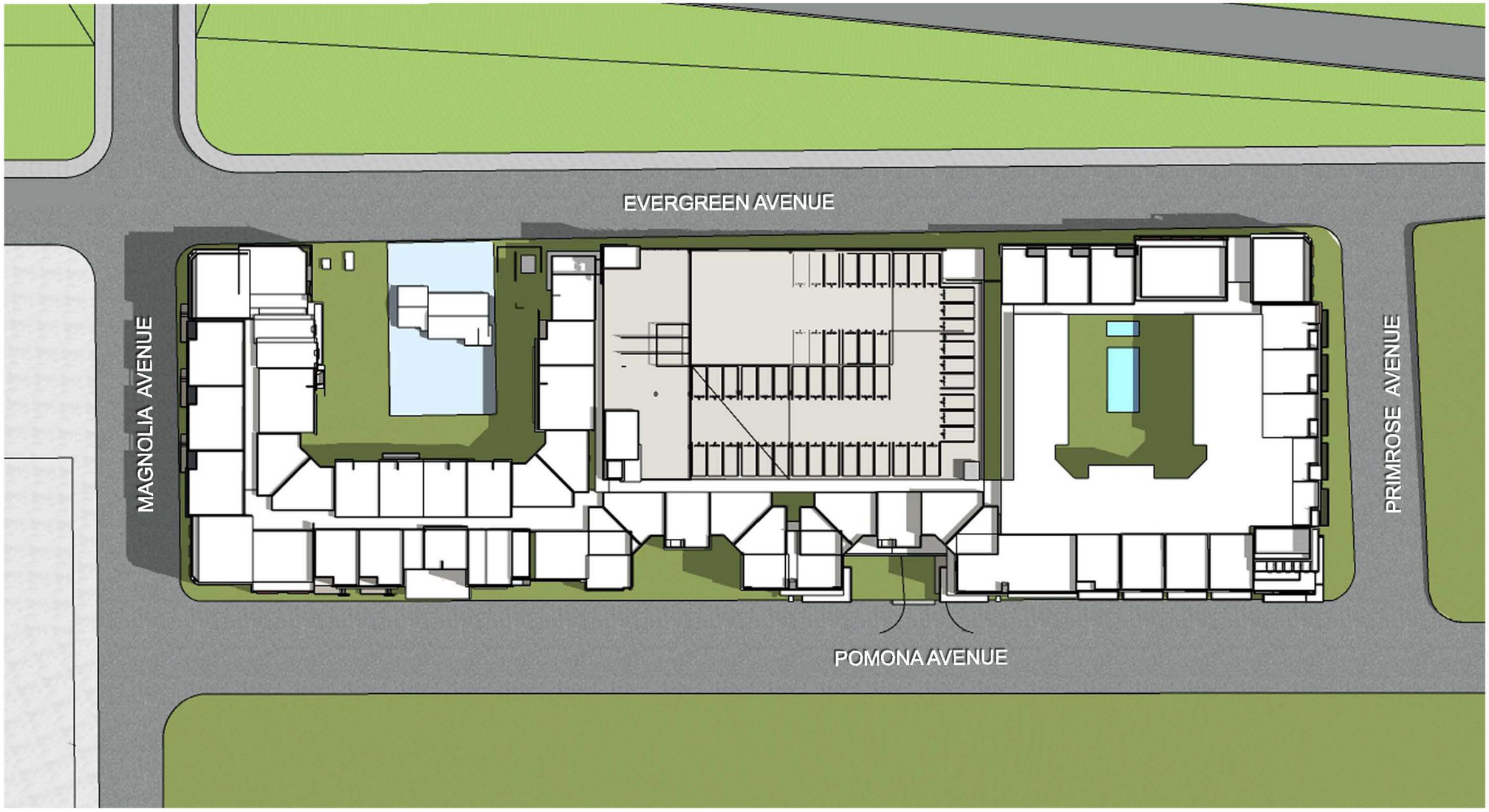
With implementation of the mitigation measures above, potentially significant impacts on aesthetics and visual resources would be reduced to less than significant levels.

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
ANSI	American National Standards Institute
CEQA	California Environmental
EIR	Environmental Impact Report
IES	Illuminating Engineering Society
IESNA	Illuminating Engineering Society of North America
METRO	Los Angeles County Metropolitan Transit Authority
TPA	Transit Priority Area
ZCA	Zoning Code Amendment

References Cited

City of Monrovia
2008 Monrovia General Plan Proposed Land Use and Circulation Elements, Environmental Impact Report (EIR) SCH No. 2007021135. Monrovia, CA. January 2008.

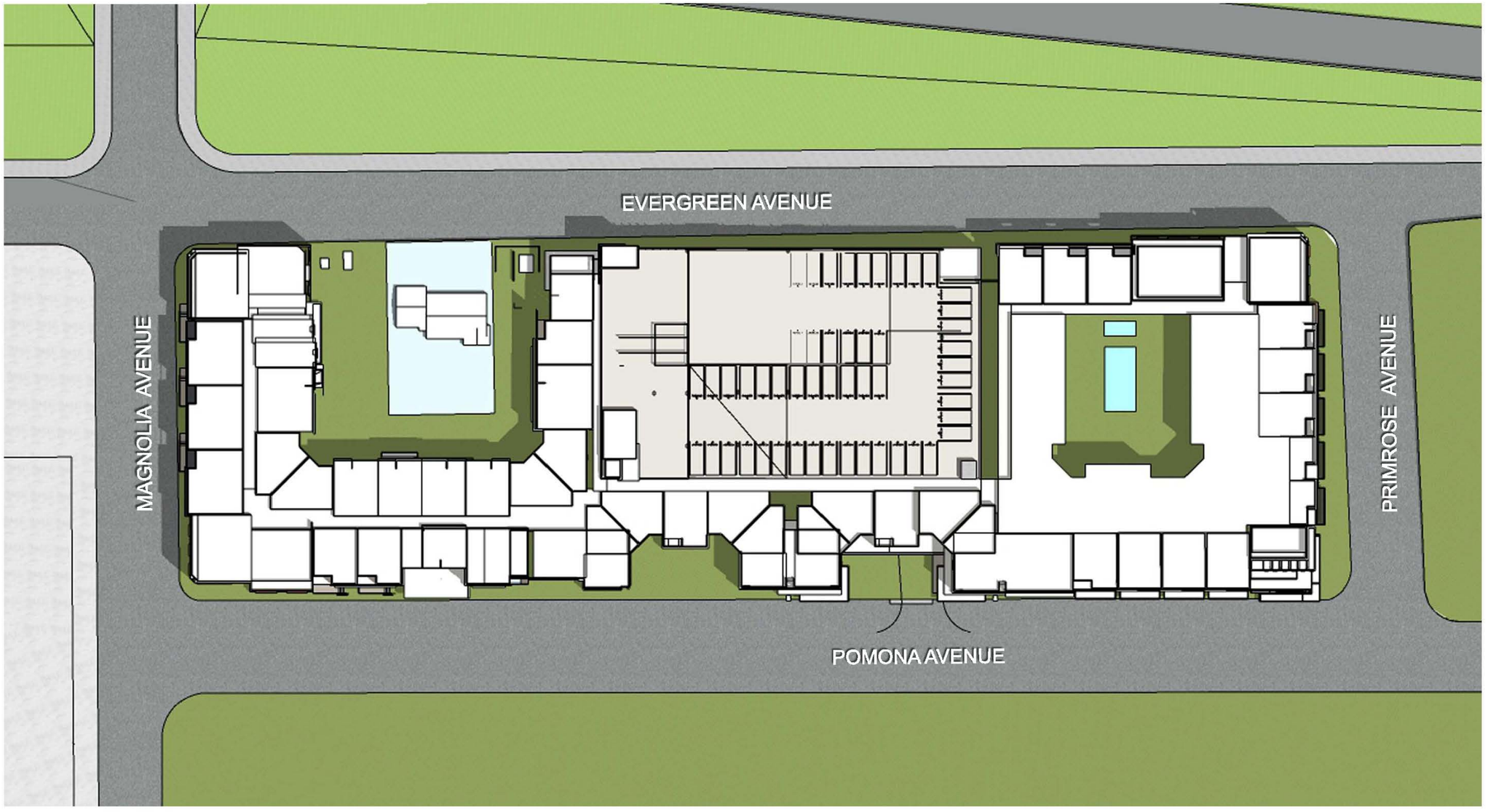
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-1 Shade/Shadow Study (Sheet 1 of 10)

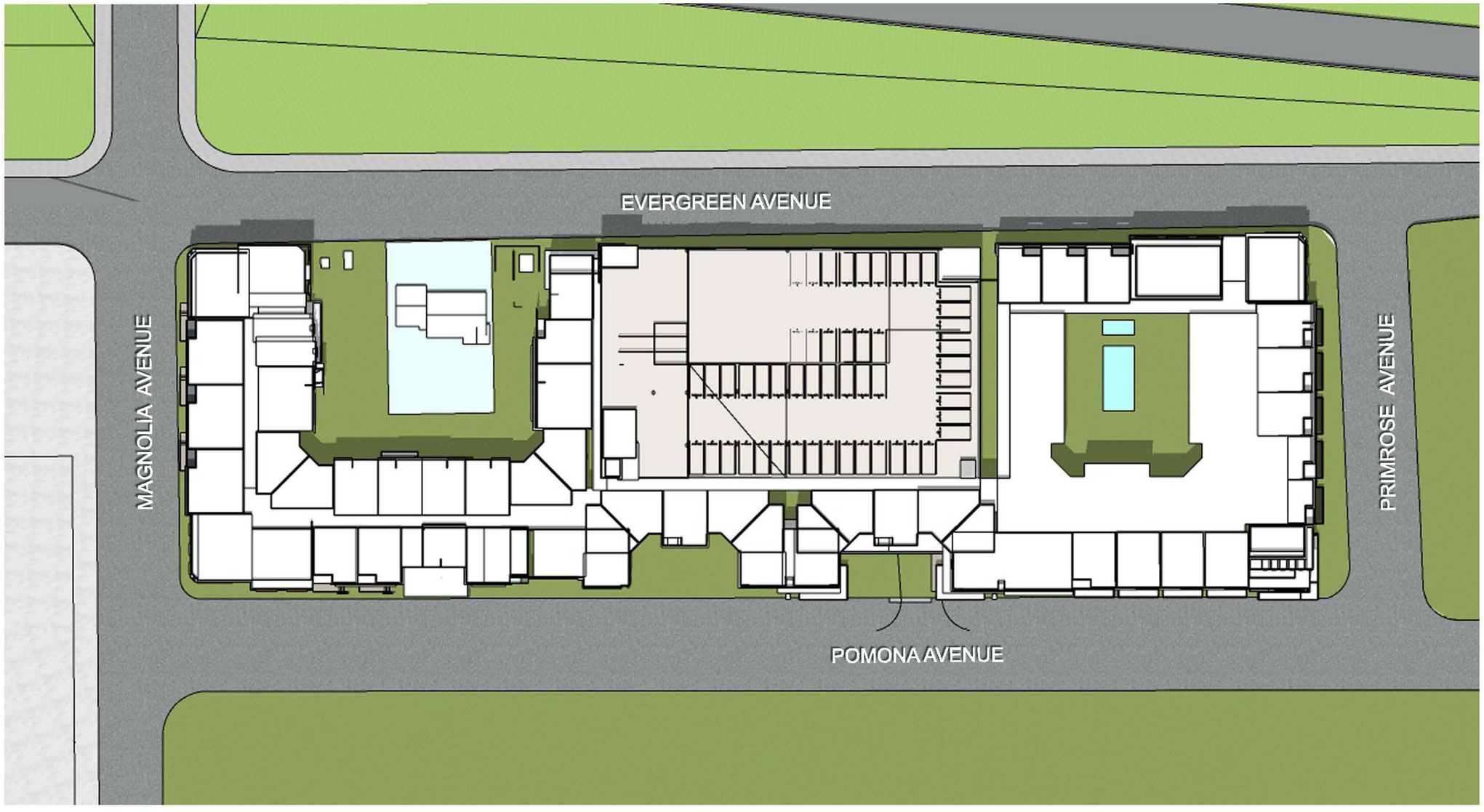
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-2 Shade/Shadow Study (Sheet 2 of 10)

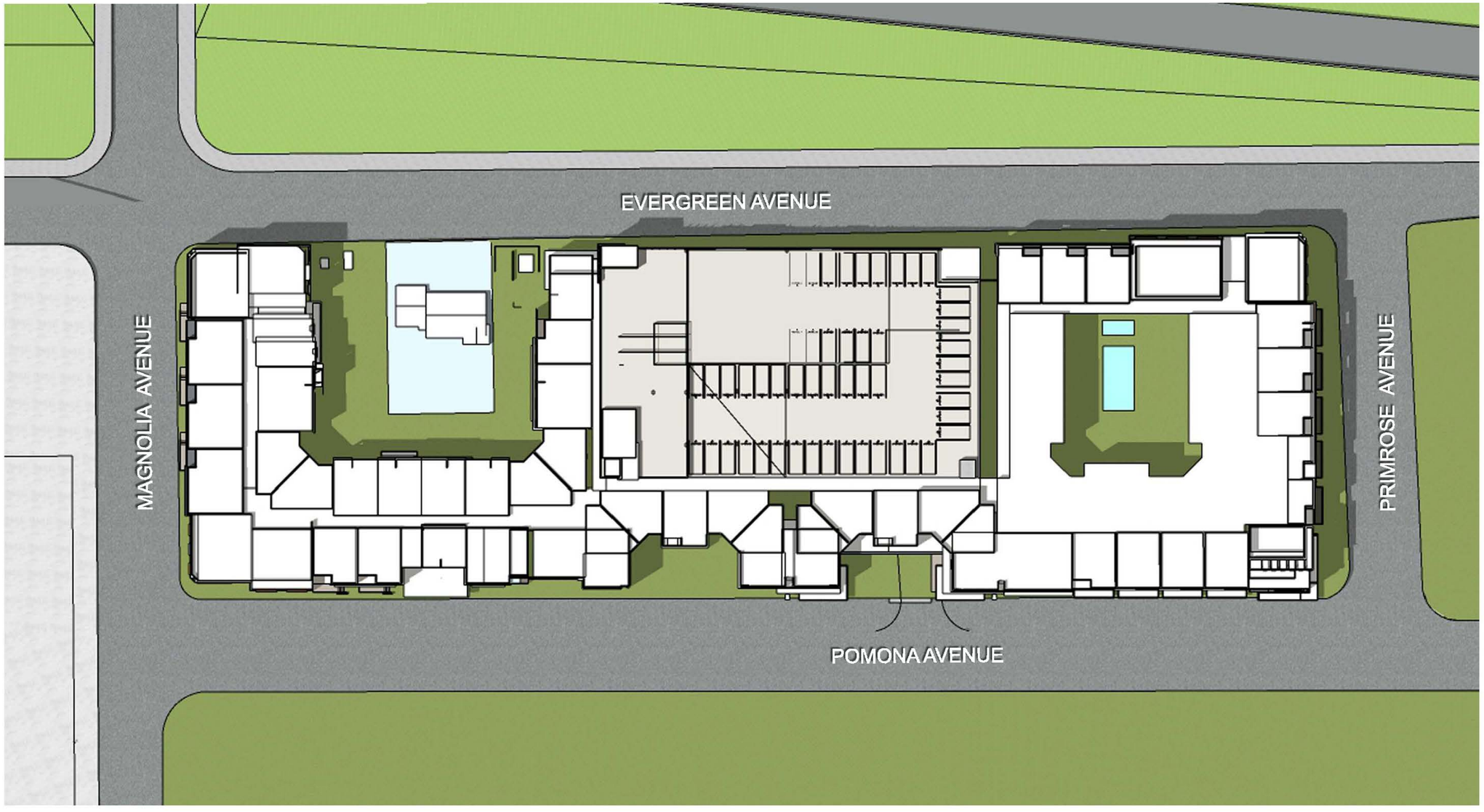
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-3 Shade/Shadow Study (Sheet 3 of 10)

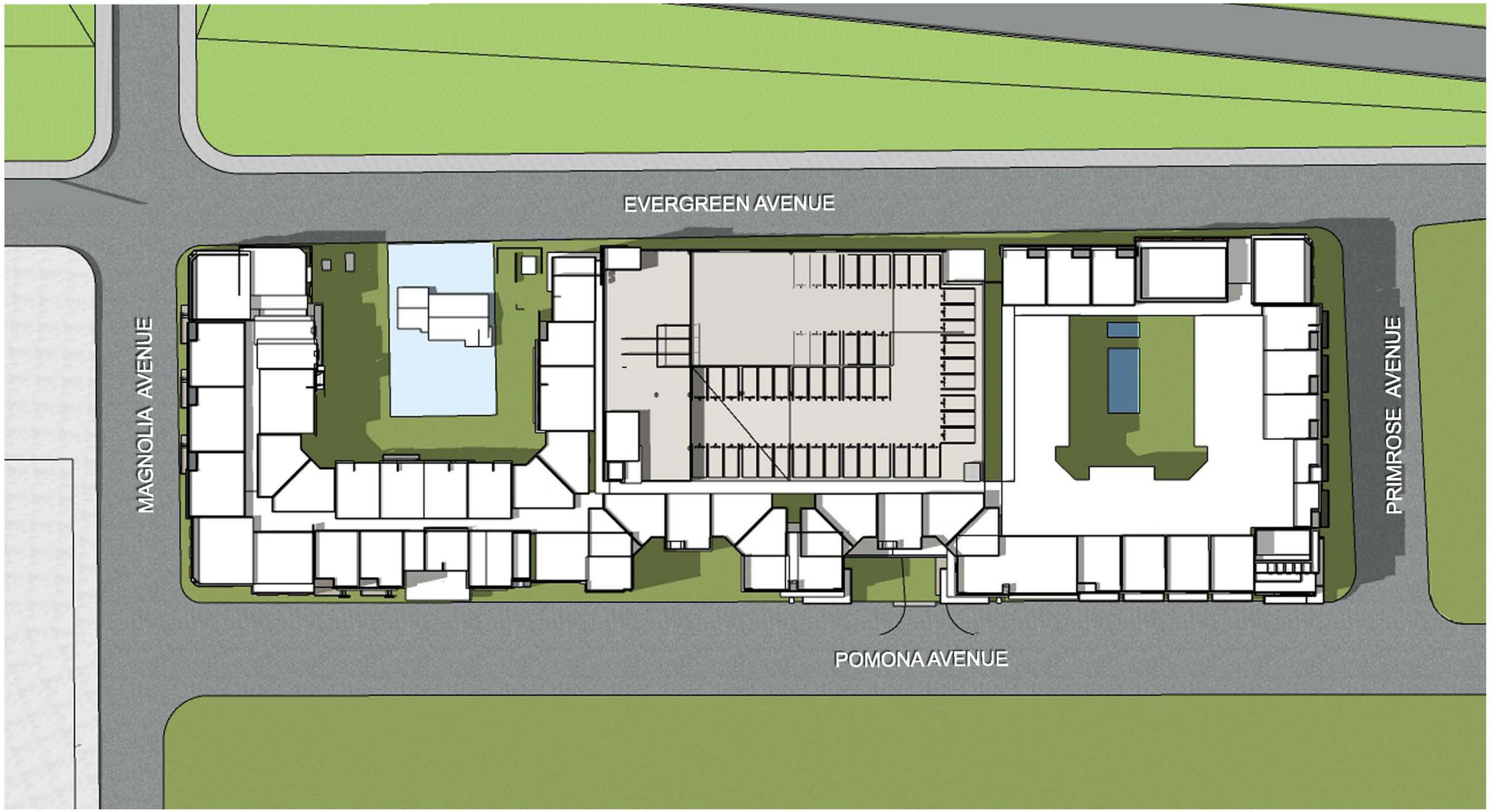
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-4 Shade/Shadow Study (Sheet 4 of 10)

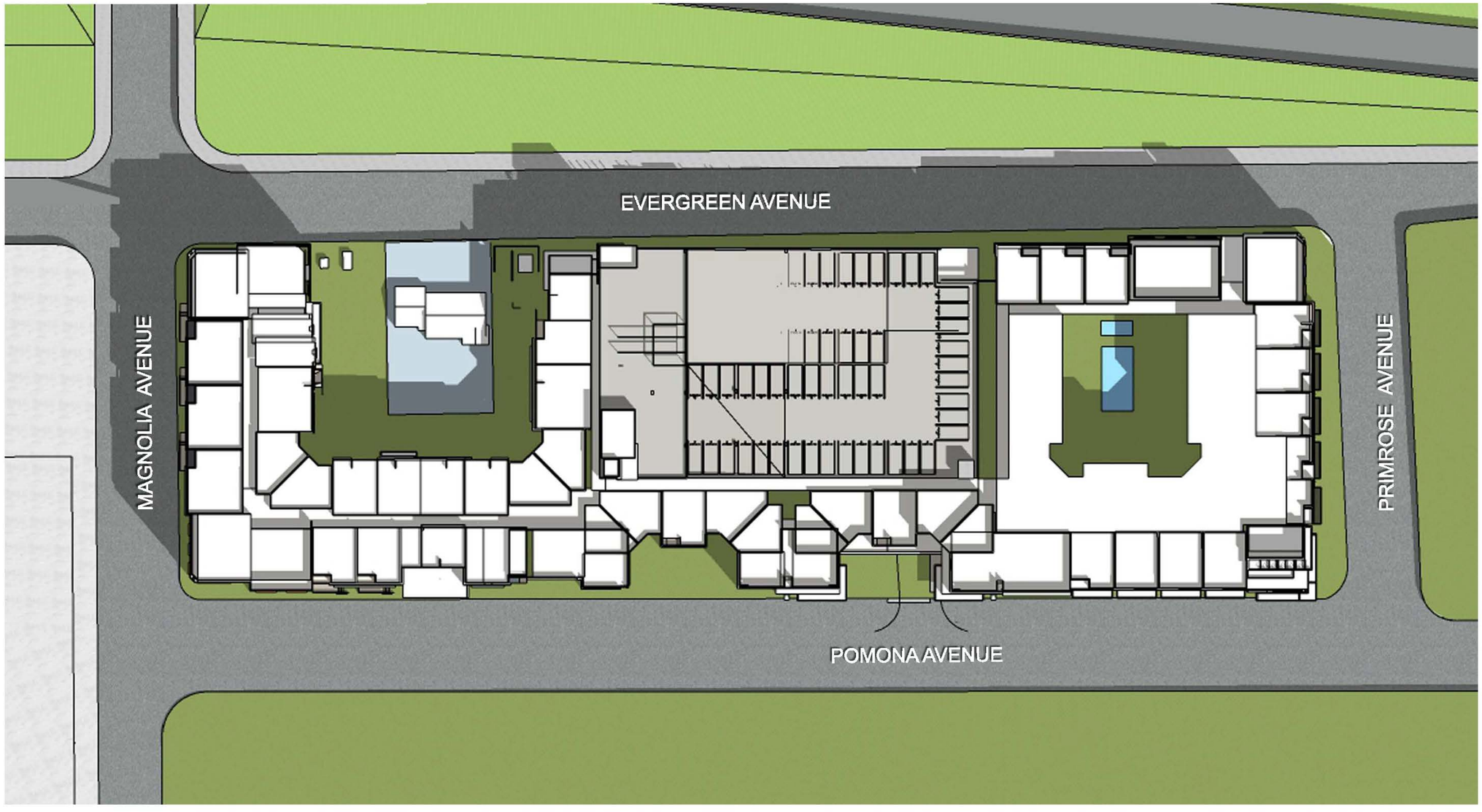
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-5 Shade/Shadow Study (Sheet 5 of 10)

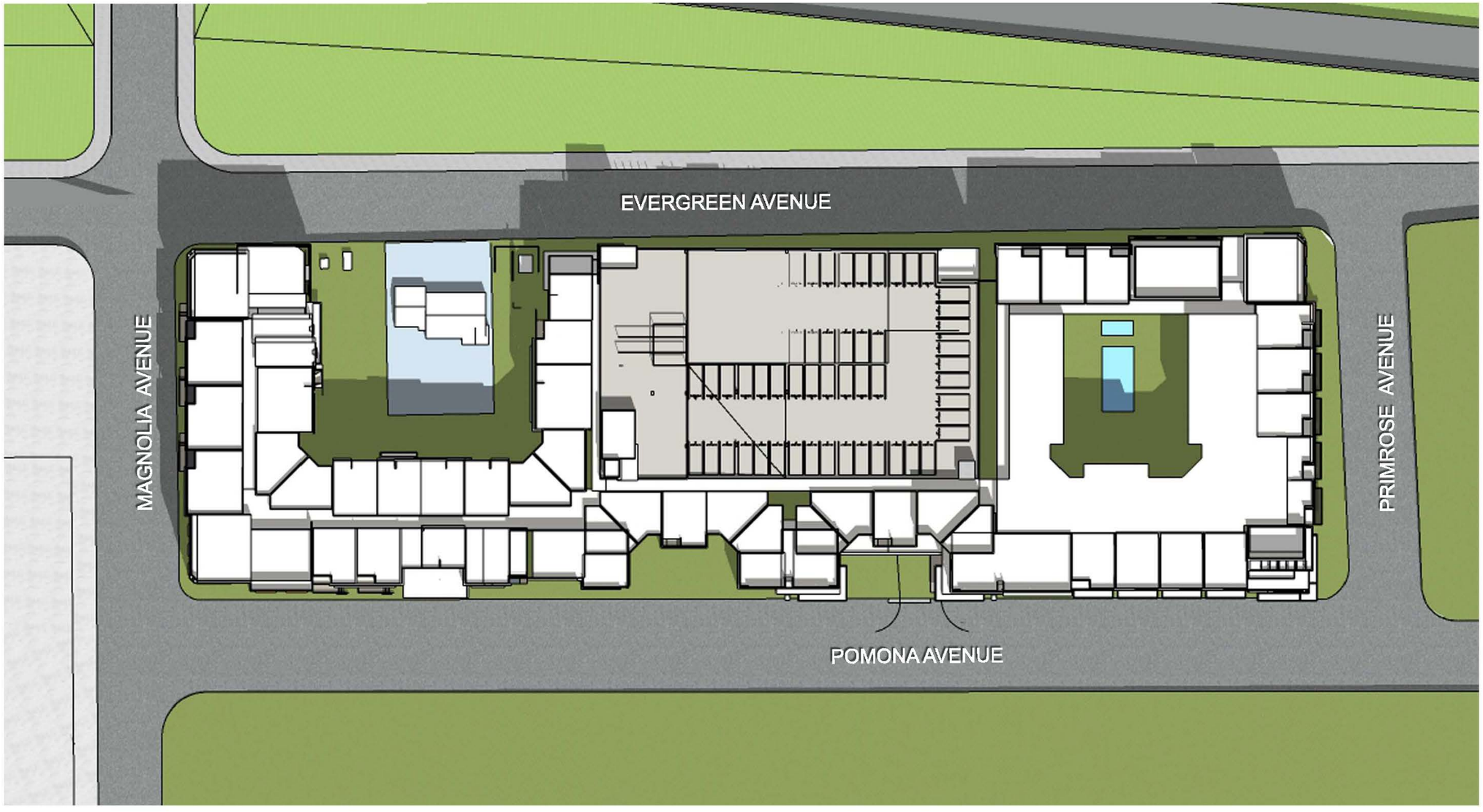
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-6 Shade/Shadow Study (Sheet 6 of 10)

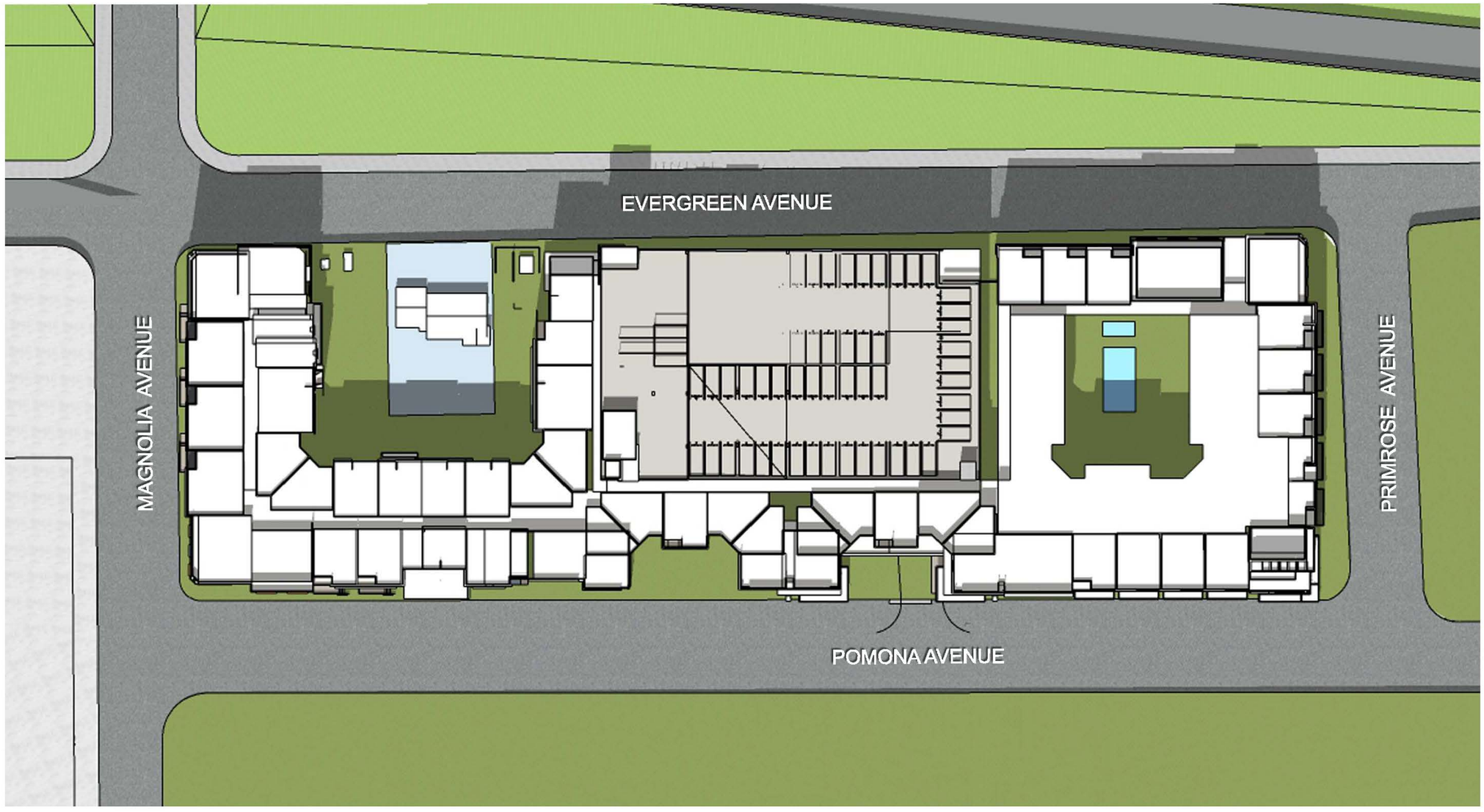
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-7 Shade/Shadow Study (Sheet 7 of 10)

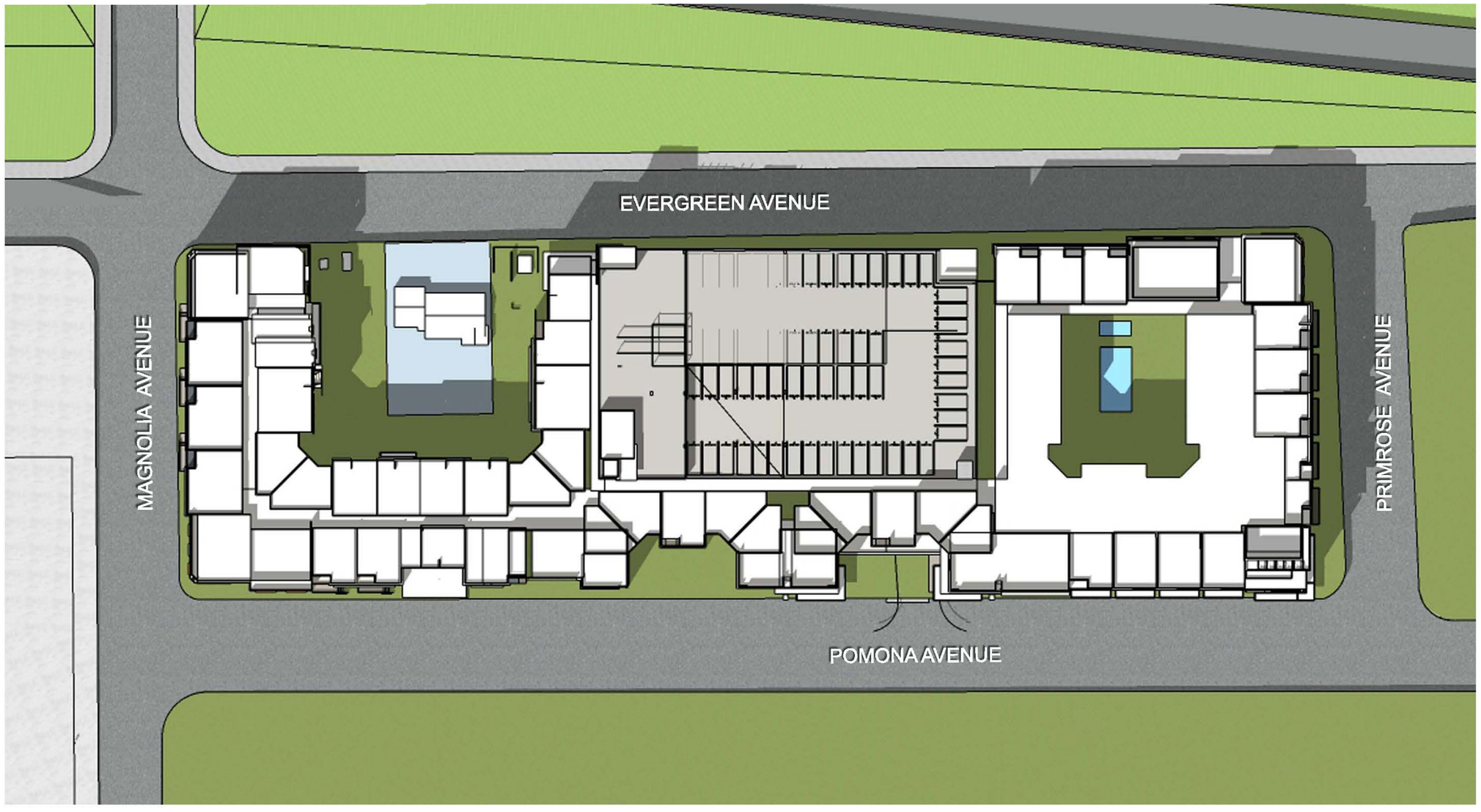
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-8 Shade/Shadow Study (Sheet 8 of 10)

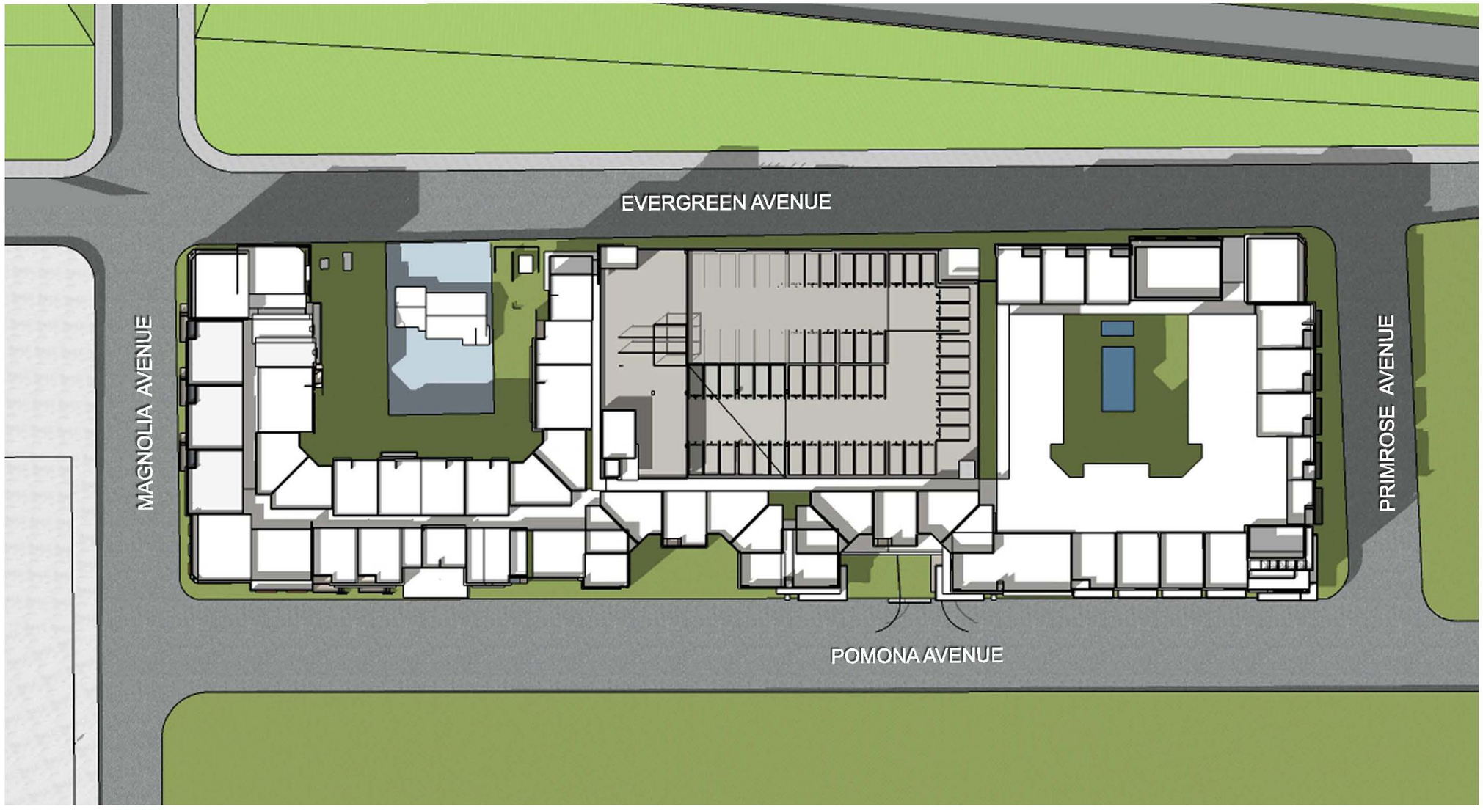
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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-9 Shade/Shadow Study (Sheet 9 of 10)

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Source: Evergreen Investment Partners, LLC and Architects Orange, 2019

Figure 5-10 Shade/Shadow Study (Sheet 10 of 10)

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6. AGRICULTURAL AND FORESTRY RESOURCES

This EIR Chapter describes existing agricultural and forestry resources at the Project site. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts and describes potential impacts that could result from the Project.

6.1 SETTING

Information related to Important Farmlands was obtained from the following map (California Department of Conservation 2018) referenced below as well as the Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) located here:

ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/los16.pdf

6.1.1 Environmental Setting

According to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation 2018), the City of Monrovia, including the Project site, has no land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. According to the Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008), there are no remaining agricultural uses within Monrovia's jurisdiction. Additionally, there are no lands within the City limits, including the Project site, that are held under Williamson Act contracts. The Project site is not zoned as agriculture and no lands are zoned as agriculture within Monrovia.

6.1.2 Regulatory Setting

Federal

Farmland Protection Policy Act (7 United States Code [USC] Section 4201)

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It also directs Federal programs to be compatible with State and local policies for the protection of farmland. The FPPA does not authorize the Federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. Projects are subject to FPPA requirements if they irreversibly convert farmland (directly or indirectly) to non-agricultural use and are completed by a Federal agency or rely on assistance from a Federal Agency (USDA 2019).

State

California Department of Conservation, Division of Land Resource Protection

The California Department of Conservation (CDOC) applies the Natural Resources Conservation Service soil classifications to identify agricultural lands. These agricultural designations are used in planning for the present and future of California's agricultural land resources. Lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as "farmland."

Williamson Act

The California Land Conservation Act, better known as the Williamson Act, has been the State's premier agricultural land protection program since its enactment in 1965. Land under a Williamson Act contract is restricted to agricultural uses for a term of no less than 10 years. The Williamson Act is a non-mandated State policy providing for preferential assessment of agricultural and open space lands that meet local size and land use criteria.

Senate Bill (SB) 275

Senate Bill (SB) 275 created the Agricultural Land Stewardship Program Act of 1995, a CDOC grant program for local governments and nonprofit organizations to aid in the acquisition of agricultural conservation easements. CDOC awards grant funding from the Agricultural Land Stewardship Program fund, which receives revenue from gifts, donations, proceeds from the sale of general obligation bonds, funds appropriated by the Legislature, Federal grants or loans, and other sources.

Local

City of Monrovia Code of Ordinances, Chapter 17.18 – Angeles National Forest Zone

In the City's jurisdictional limits, all property within the Angeles National Forest contains an Angeles National Forest (ANF) zoning designation. Development within this zone requires approval through the Hillside Development Permit process. However, the Project site is approximately three (3) miles south of the Angeles National Forest, therefore, these regulations do not apply to the Project.

6.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts on agricultural and forestry resources that could result from Project implementation. The Section also recommends mitigation measures as needed to reduce significant impacts.

6.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items II (a) through (e), implementation of the Project would have a significant impact related to agricultural and forestry resources if it would:

(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;

(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract;

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

(d) Result in loss of forest land or conversion of forest land to non-forest use; or

(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.

6.2.2 Environmental Impacts

There are no agricultural or forestry resources in the Project area or within the surrounding area. Therefore, the Project would not convert farmland or forest land to non-agricultural or non-forest use and would not impact nearby farmland or forest areas that could result in conversion.

Mitigation Measures

No mitigation measures are required.

6.2.3 Impact Conclusions

The Project would have no impact on agricultural and forestry resources and no mitigation is required.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
ANF	Angeles National Forest
CDOC	California Department of Conservation
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
FPPA	Farmland Protection Policy Act
SB	Senate Bill
USDA	U.S. Department of Agriculture

References Cited

California Department of Conservation
2018 Important Farmlands Map for Los Angeles County (July 2017). Sacramento, CA. Queried in November 2018.

City of Monrovia
2008 Monrovia General Plan Proposed Land Use and Circulation Elements, Environmental Impact Report (EIR) SCH No. 2007021135. Monrovia, CA. January.

United States Department of Agriculture
2019 Farmland Protection Policy Act. Natural Resources Conservation Service. Accessed March 4, 2019. Available at https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/fppa/?cid=nrcs143_008275.

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7. AIR QUALITY

This EIR Chapter describes the existing air quality setting in the vicinity of the Project, the regulatory framework necessary to evaluate potential environmental impacts resulting from the proposed Project, and the potential impacts that could result from the Project. Where necessary, this chapter identifies mitigation measures that would avoid or reduce the Project's potentially significant air quality impacts.

The methodologies and assumptions used in the preparation of this Chapter follow the CEQA Guidelines developed by the South Coast Air Quality Management District (SCAQMD 2017a). Information on existing air quality conditions, Federal, and State ambient air quality standards, and pollutants of concern was obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD.

This air quality analysis has been closely coordinated with the greenhouse gas (GHG) analysis in Chapter 11 of this EIR. This analysis is based upon an Air Quality and GHG Impact Analysis report prepared for the Project, as well as a Health Risk Assessment Report, which are contained in Appendix C1 and C2 to this EIR (MIG 2019a; MIG 2019b).

7.1 SETTING

7.1.1 Environmental Setting

Air quality is a function of pollutant emissions and topographic and meteorological influences. The physical features and atmospheric conditions of a landscape interact to affect the movement and dispersion of pollutants and determine its air quality.

South Coast Air Basin

The U.S. EPA and CARB are the Federal and State agencies charged with maintaining air quality in the nation and State, respectively. The U.S. EPA delegates much of its authority over air quality to CARB. CARB has geographically divided the State into 15 air basins for the purposes of managing air quality on a regional basis. An air basin is a CARB-designated management unit with similar meteorological and geographic conditions.

Monrovia is located in the South Coast Air Basin (Basin), which includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The Basin encompasses approximately 6,745 square miles of coastal plains, and is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

Air quality in the Basin is managed by the SCAQMD. The SCAQMD is responsible for bringing air quality emissions within the Basin into conformity with Federal and State air quality standards by reducing existing emission levels and ensuring that future emission levels meet applicable air quality standards. SCAQMD works with Federal, State, and local agencies to reduce pollutant emissions through adoption and implementation of rules and regulations (see Section 7.1.2).

Basin Climate and Meteorology

The climate of the Los Angeles region is classified as Mediterranean, but weather conditions within the Basin are dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This temperate climate is occasionally interrupted by extremely hot temperatures during the summer, Santa Ana winds during the fall, and storms from the Pacific Northwest during the winter. In addition to the Basin's topography and geographic location, El Niño and La Niña patterns also have large effects on weather and rainfall received between November and March.

The Pacific high-pressure system drives the prevailing winds in the Basin. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases ozone levels. A temperature inversion is created when a layer of cool air is overlain by a layer of warmer air; this can occur over coastal areas when cool, dense air that originates over the ocean is blown onto land and flows underneath the warmer, drier air that is present over land. In the winter, areas throughout the Basin often experience a shallow inversion layer that prevents the dispersion of surface level air pollutants, resulting in higher concentrations of criteria air pollutants such as carbon monoxide (CO) and oxides of nitrogen (NO_X).

In the fall months, the Basin is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada-Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. These winds are powerful and incessant. A strong Santa Ana wind can easily exacerbate fire conditions, resulting in worsening air quality throughout the Basin, as smoke and ash are pushed into the region.

An El Niño is a warming of the surface waters of the eastern Pacific Ocean. It is a climate pattern that occurs across the tropical Pacific Ocean that is usually associated with drastic weather occurrences, including enhanced rainfall in Southern California. La Niña is a term for cooler than normal sea surface temperatures across the Eastern Pacific Ocean. The Los Angeles region receives less than normal rainfall during La Niña years.

Located in the foothills of the San Gabriel Mountains in the eastern part of the San Gabriel Valley and Los Angeles County, Monrovia consists of approximately 13.7 square miles. It is situated adjacent to the cities of Arcadia, North El Monte, Irwindale, and Duarte. The region experiences a Mediterranean climate characterized by hot dry summers, and cool, mild winters, with precipitation occurring in the winter months. The area is within the Climatic Transition Zone from the moister coastal region to the more arid inland regions of southern California.

Regulated Air Pollutants

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for six common air pollutants: ozone (O_3), particulate matter (PM), which consists of "inhalable coarse" PM (particles with an aerodynamic diameter between 2.5 and 10 microns in diameter, or PM_{10}) and "fine" PM (particles with an aerodynamic diameter smaller than 2.5 microns, or $PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. The U.S. EPA refers to these six common pollutants as "criteria" pollutants because the agency regulates the pollutants on the basis of human health and/or environmentally-based criteria because they are known to cause adverse human health effects and/or adverse effects on the environment (U.S. EPA 2019a, b). CARB has also established California Ambient Air Quality Standards (CAAQS) for the six

common air pollutants regulated by the Federal Clean Air Act (the CAAQS are more stringent than the NAAQS) plus the following additional air pollutants: hydrogen sulfide (H_2S), sulfates (SO_X), vinyl chloride, and visibility reducing particles due to their known adverse effects on human health or the environment (CARB 2019b).

A description of the air pollutants associated with the Project and its surrounding vicinity is provided below. Air pollutants not commonly associated with the existing or proposed sources in the vicinity of the Project, such as hydrogen sulfide, lead, and visibility reducing particles, are not described below.

- **Ground-level Ozone**, or smog, is not emitted directly into the atmosphere. It is created from chemical reactions between NO_X and volatile organic compounds (VOCs), also called Reactive Organic Gases (ROG), in the presence of sunlight (U.S. EPA 2017). Thus, ozone formation is typically highest on hot sunny days in urban areas with NO_X and ROG pollution. Ozone irritates the nose, throat, and air pathways and can cause or aggravate shortness of breath, coughing, asthma attacks, and lung diseases such as emphysema and bronchitis.
    - **ROGs** is a CARB term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, and includes several low-reactive organic compounds which have been exempted by the U.S. EPA VOC definition (CARB 2004).
    - **VOCs** is a U.S. EPA term defined as any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions. The term exempts organic compounds of carbon which have been determined to have negligible photochemical reactivity such as methane, ethane, and methylene chloride (CARB 2004).
- **Particulate Matter**, also known as particle pollution, is a mixture of extremely small solid and liquid particles made up of a variety of components such as organic chemicals, metals, and soil and dust particles (U.S. EPA 2016a).
    - **PM_{10}**, also known as inhalable coarse, respirable, or suspended PM_{10}, consists of particles less than or equal to 10 micrometers in diameter (approximately $1/7^{th}$ the thickness of a human hair). These particles can be inhaled deep into the lungs and possibly enter the blood stream, causing health effects that include, but are not limited to, increased respiratory symptoms (e.g., irritation, coughing), decreased lung capacity, aggravated asthma, irregular heartbeats, heart attacks, and premature death in people with heart or lung disease (U.S. EPA 2016a).
    - **$PM_{2.5}$**, also known as fine PM, consists of particles less than or equal to 2.5 micrometers in diameter (approximately $1/30^{th}$ the thickness of a human hair). These particles pose an increased risk because they can penetrate the deepest parts of the lung, leading to and exacerbating heart and lung health effects (U.S. EPA 2016a).
- **Carbon Monoxide (CO)** is an odorless, colorless gas that is formed by the incomplete combustion of fuels. At high concentrations, CO reduces the oxygen-carrying capacity of the blood and can aggravate cardiovascular disease and cause headaches, dizziness, unconsciousness, and even death (U.S. EPA 2016b).
- **Nitrogen Dioxide (NO_2)** is a by-product of combustion. NO_2 is not directly emitted but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_X and are major contributors to ozone

formation. NO_2 also contributes to the formation of particulate matter. NO_2 can cause breathing difficulties at high concentrations (U.S. EPA 2016c).

- **Sulfur Dioxide (SO_2)** is one of a group of highly reactive gases known as SO_X. Fossil fuel combustion in power plants and industrial facilities are the largest emitters of SO_2. Short-term effects of SO_2 exposure can include adverse respiratory effects such as asthma symptoms. SO_2 and other SO_X can react to form PM (U.S. EPA 2016d).
- **Sulfates (SO_4^{2-})** are the fully oxidized ionic form of sulfur. SO_4^{2-} are primarily produced from fuel combustion. Sulfur compounds in the fuel are oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Sulfate exposure can increase risks of respiratory disease (CARB 2009).

Common criteria air pollutants, such as ozone precursors, SO_2, and particulate matter, are emitted by a large number of sources and have effects on a regional basis (i.e., throughout the Basin). Other pollutants, such as hazardous air pollutants (HAPs), toxic air contaminants (TACs) (described in more detail below), and fugitive dust, are generally not as prevalent and/or emitted by fewer and more specific sources. As such, these pollutants have much greater effects on local air quality conditions and local receptors.

Ambient Air Quality Standards and Basin Attainment Status

In general, the NAAQS and CAAQS define "clean" air, and are established at levels designed to protect the health of the most sensitive groups in our communities by defining the maximum amount of a pollutant (averaged over a specified period of time) that can be present in outdoor air without any harmful effects on people or the environment. Air pollutant levels are typically described in terms of concentration, which refers to the amount of pollutant material per volumetric unit of air. Concentrations are typically measured in parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$).

The U.S. EPA, CARB, and regional air agencies assess the air quality of an area by measuring and monitoring the amount of pollutants in the ambient air and comparing pollutant levels against NAAQS and CAAQS. Based on these comparisons, regions are classified into one of the following categories:

- **Attainment**. A region is "in attainment" if monitoring shows ambient concentrations of a specific pollutant are less than or equal to the NAAQS or CAAQS. In addition, an area that has been re-designated from nonattainment to attainment is classified as a "maintenance area" for 10 years to ensure that the air quality improvements are sustained.
- **Nonattainment.** If the NAAQS or CAAQS are exceeded for a pollutant, the region is designated as nonattainment for that pollutant. It is important to note that some NAAQS and CAAQS require multiple exceedances of the standard in order for a region to be classified as nonattainment. Federal and State Laws require nonattainment areas to develop strategies, implementation plans, and control measures to reduce pollutant concentrations to levels that meet, or attain, standards.
- **Unclassified.** An area is unclassified if the ambient air monitoring data are incomplete and do not support a designation of attainment or nonattainment.

Table 7-1 lists the NAAQS and CAAQS and summarizes the Basin's attainment status.

Table: 7-1 Ambient Air Quality Standards and Basin Attainment Status

Pollutant	Averaging Time[B]	California Standards[A]		National Standards[A]	
		Standard[C]	Attainment Status[D]	Standard[C]	Attainment Status[D]
Ozone	1-Hour (1979)	--	--	240 µg/m^3	Nonattainment
	1-Hour (Current)	180 µg/m^3	Nonattainment	--	--
	8-Hour (1997)	--	--	160 µg/m^3	Nonattainment
	8-Hour (2008)	--	--	147 µg/m^3	Nonattainment
	8-Hour (Current)	137 µg/m^3	Nonattainment	137 µg/m^3	Pending
PM_{10}	24-Hour	50 µg/m^3	Nonattainment	150 µg/m^3	Attainment
	Annual Average	20 µg/m^3	Nonattainment	--	--
$PM_{2.5}$	24-Hour	--	--	35 µg/m^3	Nonattainment
	Annual Average (1997)	--	--	15 µg/m^3	Nonattainment
	Annual Average (Current)	12 µg/m^3	Nonattainment	12 µg/m^3	Nonattainment
Carbon Monoxide	1-Hour	23,000 µg/m^3	Attainment	40,000 µg/m^3	Attainment
	8-Hour	10,000 µg/m^3	Attainment	10,000 µg/m^3	Attainment
Nitrogen Dioxide	1-Hour	339 µg/m^3	Attainment	188 µg/m^3	Unclassifiable/ Attainment
	Annual Average	57 µg/m^3	Attainment	100 µg/m^3	Attainment
Sulfur Dioxide	1-Hour	655 µg/m^3	Attainment	196 µg/m^3	Attainment
	24-Hour	105 µg/m^3	Attainment	367 µg/m^3	Unclassifiable/ Attainment
	Annual Average	--	--	79 µg/m^3	Unclassifiable/ Attainment
Lead	3-Months Rolling	--	--	0.15 µg/m^3	Nonattainment (Partial)
Hydrogen Sulfide	1-Hour	42 µg/m^3	Attainment	--	
Sulfates	24-Hour	25 µg/m^3	Attainment	--	
Vinyl Chloride	24-Hour	26 µg/m^3	Attainment	--	

Source: CARB 2016b, SCAQMD 2016a, modified by MIG.

(A) This table summarizes the CAAQS and NAAQS and the Basin's attainments status (as of January 2018). This table does not prevent comprehensive information regarding the CAAQS and NAAQS. Each CAAQS and NAAQS has its own averaging time, standard unit of measurement, measurement method, and statistical test for determining if a specific standard has been exceeded. Standards are not presented for visibility reducing particles, which are not concentration-based. The Basin is unclassified for visibility reducing particles.

(B) Ambient air standards have changed over time. This table presents information on the standards previously used by the U.S. EPA for which the Basin does not meet attainment.

(C) All standards are shown in terms of micrograms per cubic meter (µg/m^3) rounded to the nearest whole number for comparison purposes (with the exception of lead, which has a standard less than 1 µg/m^3). The actual CAAQS and NAAQS standards specify specific units for each pollutant measurement.

(D) A= Attainment, N= Nonattainment, U=Unclassifiable.

Hazardous Air Pollutants/Toxic Air Contaminants

In addition to criteria air pollutants, the U.S. EPA and CARB have classified certain pollutants as Hazardous Air Pollutants (HAPs) (by U.S. EPA) or Toxic Air Contaminants (TACs) (by CARB), respectively. These pollutants can cause severe health effects at very low concentrations (non-cancer effects), and many are suspected or confirmed carcinogens (i.e., can cause cancer) (U.S. EPA 2019a, CARB 2019c). People exposed to HAPs/TACs at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects (U.S. EPA 2019a, CARB 2019c). These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and/or other health problems (U.S. EPA 2019a, CARB 2019c).

The U.S. EPA has identified 187 HAPs, including such substances as benzene and formaldehyde; CARB also considers particulate emissions from diesel-fueled engines and other substances to be TACs. Since CARB's list of TACs references and includes U.S. EPA's list of HAPs, this EIR uses the term TAC when referring to HAPs and TACs. A description of the TACs associated with the Project and its surrounding vicinity is provided below.

- **Gasoline-Powered Mobile Sources.** According to the SCAQMD's *Multiple Air Toxics Exposure Study in the South Coast Air Basin* (SCAQMD 2015a), or MATES IV, gasoline-powered vehicles emit TACs, such as benzene, which can have adverse health risks. Gasoline-powered sources emit TACs in much smaller amounts than diesel-powered vehicles. The MATES IV study identifies that diesel emissions account for between 68% to 80% of the total air toxics and cancer risk in the Basin.
- **Diesel Particulate Matter (DPM)**. Diesel engines emit both gaseous and solid material; the solid material is known as DPM. Almost all DPM is less than 1 µm in diameter, and thus is a subset of $PM_{2.5}$. DPM is typically composed of carbon particles and numerous organic compounds. Diesel exhaust also contains gaseous pollutants, including VOCs and NO_x. The primary sources of diesel emissions are ships, trains, trucks, rail yards and heavily traveled roadways. These sources are often located near highly populated areas, resulting in greater DPM related health consequences in urban areas. The majority of DPM is small enough to be inhaled into the lungs and what particles are not exhaled can be deposited on the lung surface and in the deepest regions of the lungs where the lung is most susceptible to injury. In 1998, CARB identified DPM as a toxic air contaminant based on evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure (CARB 2016c).
- **PM from Wheel-Rail Interaction.** PM may also be generated from friction between rail and locomotive wheels (wheel-rail interaction). This abrasion process can suspend metals such as iron, chromium, manganese, and copper in the form of PM (CARB 2019d, Loxham et al. 2013); however, the potential for PM to be generated is dependent on the weight of the train and the conditions of the wheels and track on which the train rides. The METRO Gold Line is commuter rail that consists of an Electric Multiple Unit locomotive system that is lighter than traditional diesel locomotive commuter and freight trains, and in new condition. Thus, while the METRO Gold Line may generate PM from wheel-rail interaction, this contribution is anticipated to be minimal compared with other emission sources associated with rail and other emissions in the Project area (CARB 2019e) (i.e., would not have an appreciable effect on mass emission or health risk estimates) and this issue is not discussed further in this EIR.

Local Air Quality Conditions

The SCAQMD monitors air quality within the Basin. Existing levels of ambient air quality and historical trends within the Project area are best documented by measurements taken by the SCAQMD. The station closest to Monrovia is identified as the East San Gabriel Valley 1 Station (Station #060) by SCAQMD (CARB refers to this station as Azusa). The station is located less than four miles to the east of Monrovia's boundary and monitors CO, O_3, NO_2, PM_{10} and $PM_{2.5}$. This monitoring station represents the best approximation of the air quality conditions within the City.

Table 7-2 summarizes the published monitoring data from East San Gabriel Valley 1 monitoring station from 2014 to 2016, the three most recent years for which verified, published data is available from the SCAQMD (2017 data was not yet available as of the time of writing of this EIR). Table 7-2 shows that air quality standards at this location have been exceeded for $PM_{2.5}$, PM_{10}, and O_3. This is consistent with the entire Basin's classification as non-attainment for $PM_{2.5}$, PM_{10}, and O_3. As shown in Table 7-2:

- The maximum 1-hour and 8-hour CO concentration generally decreased from 2014 to 2016. There were no days in which CO standards were exceeded during this time period.
- The maximum 1-hour NO_2 concentration generally increased from 2014 to 2016, while the average annual NO_2 concentration generally decreased. There were no days in which NO_2 standards were exceeded during this time period.
- The maximum 1-hour and 8-hour O_3 concentration, as well as the number of days exceeding O_3 standards, generally increased from 2014 to 2016.
- The maximum 24-hour and average annual PM_{10} concentration fluctuated during the 2014 to 2016 period but there were no days/years in which the Federal PM_{10} standards were exceeded. The State PM_{10} annual standard was exceeded in 2014, 2015, and 2016; however, the annual average PM_{10} concentration and the number of days exceeding the state 24-hour standard generally decreased over this time period.
- The maximum 24-hour and average annual $PM_{2.5}$ concentration fluctuated during the 2014 to 2016 period but there were no years in which the Federal or State $PM_{2.5}$ annual average standards were exceeded. The Federal 24-hour $PM_{2.5}$ was exceeded once in 2015.

Table 7-2: Local Air Quality Conditions (2014 – 2016)

Pollutant	Ambient Air Standard	Year[(A)]		
		2015	2016	2017
Ozone (O_3)				
Maximum 1-hour Concentration (ppm)		0.122	0.146	0.152
Maximum 8-hr Concentration (ppm)		0.096	0.106	0.114
Number of Days Exceeding State 1-hr Standard	>180 µg/m3	21	30	38
Number of Days Exceeding State 8-hr Standard	>137 µg/m3	28	40	62
Days Exceeding Federal 1-hr Standard	>0.124 ppm	0	4	7
Days Exceeding Federal 8-hr Standard	>0.070 ppm	27	39	62
Carbon Monoxide (CO)				
Maximum 1-hr Concentration (ppm)		2.1	1.3	1.8

Pollutant	Ambient Air Standard	Year(A)		
		2015	2016	2017
Maximum 8-hr Concentration (ppm)		1.3	1.2	0.9
Days Exceeding State 1-hr Standard	>23,000 µg/m^3	--	--	--
Days Exceeding Federal/State 8-hr Standard	>10,000 µg/m^3	--	--	--
Days Exceeding Federal 1-hr Standard	>40,000 µg/m^3	--	--	--
Nitrogen Dioxide (NO_2)				
Maximum 1-hr Concentration (ppb)		71.0	74.2	65.6
Annual Arithmetic Mean Concentration (ppb)		15.4	16.6	15.8
Days Exceeding State 1-hr Standard	>180 µg/m^3	--	--	--
Coarse Particulate Matter (PM_{10})				
Maximum 24-hr Concentration (µg/m^3)		101	74	83
Annual Arithmetic Mean (µg/m^3)		37.1	33.7	31.4
Samples Exceeding State 24-hr Standard	>50 µg/m^3	12	12	6
Samples Exceeding Federal 24-hr Standard	>150 µg/m^3	0	0	0
Fine Particulate Matter ($PM_{2.5}$)				
Maximum 24-hr Concentration (µg/m^3)		44.3	32.17	24.9
Annual Arithmetic Mean (µg/m^3)		9.4	10.15	10.42
Samples Exceeding Federal 24-hr Standard	>35 µg/m^3	1	0	0

Source: SCAQMD 2019a, 2019b, 2019c
(A) "--" indicates data are not available.

Emissions Sources from Existing Land Uses

As described in Chapter 3.0, Project Description, the existing land uses in the Project area consists of a mix of single-family residential (8 total dwelling units), two industrial parcels (approximately 44,240 square feet), vacant lot, and private parking lot. These existing land uses generate emissions from the following sources:

- **Small "area" sources.** Existing land uses in the Project area generate emissions from small area sources including landscaping equipment and the use of consumer products such as paints, cleaners, and fertilizers that result in the evaporation of chemicals into the atmosphere during product use.
- **Energy use and consumption**. Existing land uses in the Project area generate emissions from the combustion of natural gas in water and space heating equipment, as well as industrial processes.
- **Mobile sources.** Existing land uses in the Project area generate emissions from vehicles travelling to and from the Project.

The Project area's existing emissions were estimated using the California Emissions Estimator Model, or CalEEMod, Version 2016.3.2. The existing emissions were estimated using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- The default acreage and square footage for each of the Project area's land use types were adjusted to reflect the actual Project area as currently developed.

- The weekday default trip generation rates for the existing land use types were replaced with trip generation rates contained in the Traffic Impact Study (TIS) prepared for the proposed Project (9.5 trips/day/dwelling unit for the single-family residences and 5.0 trips/day/ thousand SF for light industrial land use).

Emissions of criteria air pollutants for existing land uses in the Project area are summarized in Table 7-3 below.

Table 7-3: Existing Emissions in the Project Area

Emissions Source	Maximum Daily Pollutant Emissions (Pounds Per Day) (A)							
	ROG	NO_x	CO	SO_2	PM_{10}		$PM_{2.5}$	
					Dust	Exhaust	Dust	Exhaust
Area	3.3	0.2	4.7	0.01	--	0.6	--	0.6
Energy	0.03	0.3	0.2	0.00(C)	--	0.02	--	0.02
Mobile	0.8	3.8	11.2	0.03	2.6	0.04	0.7	0.03
Subtotal(B)	4.1	4.2	16.1	0.05	2.6	0.7	0.7	0.7

Source: MIG 2019a (see Appendix C1).

(A) Emissions estimated using CalEEMod, V 2016.3.2. Estimates are based on default model assumptions unless otherwise noted. Maximum daily ROG, CO, and SO_2 emissions occur during the summer. Maximum daily NO_X, PM_{10}, and $PM_{2.5}$ emissions occur during the winter.

(B) Totals may not equal due to rounding.

(C) "<0.00" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

Sensitive Air Quality Receptors

The SCAQMD identifies sensitive receptors as populations more susceptible to the effects of air pollution than the general population. Some people are more affected by air pollution than others. Sensitive air quality receptors include specific subsets of the general population that are susceptible to poor air quality and the potential adverse health effects associated with poor air quality. Both CARB and the SCAQMD consider residences, schools, parks and playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes to be sensitive air quality land uses and receptors (SCAQMD 2017a; CARB 2005). The potential sensitive air quality receptors adjacent or in close proximity to the perimeter of the Project area (i.e., within 1,000 feet) include:

- The single-family residence at 230 West Evergreen Avenue (surrounded by the Project);
- The multi-family residential development at 228 West Pomona Avenue (MODA at Monrovia Station, 60 feet south of the Project); and
- The multi-family residential development at 313 Genoa Street (350 feet southwest of the Project, across the METRO Gold Line right-of row (ROW)).

7.1.2 Regulatory Setting

Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA), as amended, provides the overarching basis for both Federal and State air pollution prevention, control, and regulation. The Act establishes the U.S. EPA's responsibilities for protecting and improving the nation's air quality. The U.S. EPA oversees Federal programs for setting air quality standards and designating attainment status, permitting new and modified stationary sources of pollutants, controlling emissions of hazardous air pollutants, and reducing emissions from motor vehicles and other mobile sources. In 1971, to achieve the purposes of Section 109 of the CAA, the U.S. EPA developed primary and secondary NAAQS. Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and public welfare from air pollutants in the atmosphere.

The U.S. EPA requires each State prepare and submit a State Implementation Plan (SIP) that consists of background information, rules, technical documentation, and agreements that an individual State will use to attain compliance with the NAAQS within federally-imposed deadlines. State and local agencies implement the plans and rules associated with the SIP, but the rules are also federally enforceable.

State

California Clean Air Act

In addition to being subject to Federal requirements, air quality in the State is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the CAAQS.

As discussed above, in California, both the Federal and State Clean Air acts are administered by CARB. 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 level.

In-Use Off-Road Diesel Equipment Program

CARB's In-Use Off-Road Diesel Equipment regulation is intended to reduce emissions of NO_x and PM from off-road diesel vehicles, including construction equipment, operating within California. The regulation imposes limits on idling; requires reporting equipment and engine information and labeling all vehicles reported; restricts adding older vehicles to fleets; and requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing exhaust retrofits for PM. The requirements and compliance dates of the off-road regulation vary by fleet size, and large fleets (fleets with more than 5,000 horsepower) must meet average targets or comply with Best Available Control Technology (BACT) requirements beginning in 2014. CARB has off-road anti-idling regulations affecting self-propelled diesel-fueled vehicles of 25 horsepower and up. The off-road anti-idling regulations limit idling on applicable equipment to no more than five minutes, unless exempted due to safety, operation, or maintenance requirements.

On-Road Heavy-Duty Diesel Vehicles (In-Use) Regulation

CARB's On-Road Heavy-Duty Diesel Vehicles (In-Use) regulation (also known as the Truck and Bus Regulation) is intended to reduce emission of NO_X, PM, and other criteria pollutants generated from existing on-road diesel vehicles operating in California. The regulation applies to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds that are privately or federally owned, and for privately and publicly owned school buses. Heavier trucks and buses with a GVWR greater than 26,000 pounds must comply with a schedule by engine model year or owners can report to show compliance with more flexible options. Fleets complying with the heavier trucks and buses schedule must install the best available PM filter on 1996 model year and newer engines and replace the vehicle 8 years later. Trucks with 1995 model year and older engines had to be replaced starting in 2015. Replacements with a 2010 model year or newer engine meet the final requirements, but owners can also replace the equipment with used trucks that have a future compliance date (as specified in regulation). By 2023, all trucks and buses must have at least 2010 model year engines with few exceptions.

CARB Stationary Diesel Engines – Emission Regulations

In 1998, CARB identified DPM as a TAC. To reduce public exposure to DPM, in 2000, the Board approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Risk Reduction Plan) (CARB 2000). Integral to this plan is the implementation of control measures to reduce DPM such as the control measures for stationary diesel-fueled engines. As such, diesel generators must comply with regulations under CARB's amendments *to Airborne Toxic Control Measure for Stationary Compression Ignition Engines* and be permitted by SCAQMD.

CARB Air Quality and Land Use Handbook

In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB's Air Quality and Land Use Handbook is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process (CARB 2005). The CARB Handbook recommends that planning agencies consider proximity to air pollution sources when considering new locations for "sensitive" land uses, such as residences, medical facilities, daycare centers, schools, and playgrounds. Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the Handbook relative to the Project area include taking steps to consider or avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300 feet of gasoline fueling stations; or
- Within 300 feet of dry-cleaning operations (dry-cleaning with TACs is being phased out and will be prohibited in 2023). The SCAQMD (Regulation 14, Rule 21) has established emission controls for the use of perchloroethylene, the most common dry-cleaning solvent.

CARB prepared a technical supplement to the Handbook, a *Technical Advisory on Strategies to Reduce Air Pollution Exposure Near High Volume Roadways* (CARB 2017), that provides recommendations for strategies to minimize exposure of the public to air pollutants due to

proximity to high volume roadways, such as reducing traffic emissions and removing pollution from the air.

Air Toxics "Hot Spots" Program

"Air toxics" are a special class of air pollutants especially harmful to human health, and they include carbon monoxide (CO) and TACs. State requirements specifically address emissions of air toxics through Assembly Bill (AB) 1807 (known as the Tanner Bill) that established the State Air Toxics "Hot Spots" Program and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) (California Health and Safety Code Section 44300 et seq.). Under the Air Toxics Hot Spots Information and Assessment Act of 1987 (or Air Toxics "Hot Spots" Act) and Air Toxics Hot Spots Program, the State (CARB) must collect data on toxic emissions from stationary sources (facilities) throughout the State and ascertain potential health risks that these emissions pose to members of community for developing cancer or for resulting in non-cancer health effects. California's Children's Environmental Health Protection Act of 1999 (California Health and Safety Code Section 39606), also requires explicit consideration of infants and children in assessing risks from air toxics.

Substances regulated under California's Air Toxics Hot Spots Program are defined in statute and include a list of substances developed by the following sources:

- International Agency for Research on Cancer (IARC);
- U.S. Environmental Protection Agency (U.S. EPA);
- U.S. National Toxicology Program (NTP);
- CARB Toxic Air Contaminant Identification Program List;
- Hazard Evaluation System and Information Service (HESIS) (State of California);
- Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) list of carcinogens and reproductive toxicants (State of California); and
- Any additional substance recognized by the State Board as presenting a chronic or acute threat to public health when present in the ambient air.

On May 6, 2005, the SCAQMD adopted a *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* containing numerous recommendations focused on land use planning, such as locating sensitive receptors away from substantial sources of TACs and CO hot spots (e.g., high-traffic freeways and roads, distribution centers, refineries, etc.). When locating receptors near large generators of TAC emissions, the SCAQMD recommends conducting CO hot spot analyses and analyzing health risk for these new developments.

California's Office of Environmental Health Hazard Assessment (OEHHA) has developed procedures for performing "Health Risk Assessments" to evaluate the "likelihood" of emissions of TACs to cause cancer or non-cancer effects (OEHHA 2015). A Health Risk Assessment (or HRA) can also be used to evaluate the impacts of TAC emissions of individual projects on the public, including the likelihood to cause cancer or non-cancer effects. Often these risks are evaluated for sensitive receptors (i.e., residents, including children), as these are the members of the public most sensitive to exposure to TACs.

OEHHA has striven to use the best science available in developing these risk assessment guidelines, however, there is a great deal of uncertainty associated with the process of risk assessment (OEHHA 2015). The uncertainty arises from lack of data in many areas

necessitating the use of assumptions. The assumptions used in the guidelines are designed to err on the side of health protection in order to avoid underestimation of risk to the public (OEHHA 2015).

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California State Law, established as an association of Local Governments and agencies that voluntarily convene as a forum to address regional issues. SCAG encompasses the counties of Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial.

SCAG is designated as a Metropolitan Planning Organization (MPO) and as a Regional Transportation Planning Agency. Under SB 375, SCAG, as a designated MPO, is required to prepare a Sustainable Communities Strategy (SCS) as an integral part of its Regional Transportation Plan (RTP). On April 7, 2016, SCAG's Regional Council adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS) (SCAG 2016). The 2016 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Information contained in Chapter 5: The Road to Greater Mobility and Sustainable Growth of the 2016 RTP/SCS forms the basis for the land use and transportation components of the Air Quality Management Plan (AQMP), and are utilized in the preparation of air quality forecasts and consistency analysis included in the AQMP.

SCAQMD Air Quality Management Plan

Under State Law, the SCAQMD is required to prepare an overall plan for air quality improvement, known as an AQMP. The purposed of an AQMP is to bring an air basin into compliance with Federal and State air quality standards. The SCAQMD 2016 AQMP was adopted on March 3, 2017 (SCAQMD 2017b). The 2016 AQMP provides new and revised demonstration's for how the SCAQMD, in coordination with Federal, State, Regional and Local Governments will bring the Basin back into attainment for the following NAAQS: 2008 8-hour Ozone; 2012 Annual PM2.5; 2006 24-hour PM2.5[1]; 1997 8-hour Ozone; and 1997 1-hour Ozone.

To achieve the reductions necessary to bring ambient air quality back into attainment the SCAQMD has identified seven primary objectives for the AQMP, which include:

1. Eliminating reliance on unknown future technology measures to demonstrate future attainment of air quality standards;
2. Calculating and accounting for co-benefits associated with measures identified in other, approved planning efforts (e.g., SCAG's RTP/SCS);
3. Developing a strategy with fair-share emission reductions at the Federal, State, and local levels;

1 Although the 2006 24-hour $PM_{2.5}$ standard was focused on in the 2012 AQMP, it has since been determined, primarily due to unexpected drought conditions, that it is impractical to meet the standard by the original attainment year. Since adoption of the 2012 AQMP, the US EPA approved a re-classification to "serious" non-attainment for the standard, which requires a new attainment demonstration and deadline.

4. Investing in strategies and technologies that meet multiple objectives regarding air quality, climate change, air toxic exposure, energy, and transportation – especially in disadvantaged communities;
5. Seeking, identifying, and securing significant sources of funding for incentives to implement early deployment and commercialization of zero and near-zero technologies, particularly in the mobile source sector;
6. Enhancing the socioeconomic analysis and selecting the most efficient and cost-effective path to achieve multi-pollutant and deadline targets; and
7. Prioritize non-regulatory, innovative approaches that can contribute to the economic vitality of the regional while maximizing emission reductions.

The emission forecasts and demonstrations presented in the 2016 AMQP rely heavily on information contained in other planning and strategy documents. For example, the 2016 AQMP's long-term emissions inventory is based on the growth and land use(s) projections contained in the SCAG's 2016 RTP/SCS. Additionally, the conclusions relating to ozone compliance are based on implementation of measures presented in CARB's Mobile Source Strategy and SIP strategy. The Mobile Source Strategy outlines a suite of measures targeted at on-road light- and heavy-duty vehicles, off-road equipment, and Federal and international sources. A subset of the Statewide strategy is a mobile source strategy for the South Coast SIP. Because the SCAQMD has limited authority in regulating mobile source emissions, coordination and cooperation between SCAQMD, CARB, and the U.S. EPA is imperative to meeting the NOx reductions required to meet ozone standards. Although not incorporated specifically from another planning document strategy, the 2016 AQMP also provides numerous control measures for stationary sources.

SCAQMD Rules and Regulations

The SCAQMD adopts rules that establish permissible air pollutant emissions and governs a variety of business, processes, operations, and products to implement the AQMP and the various Federal and State air quality requirements. In general, rules that are anticipated to be applicable during buildout of the Project, include:

- **Rule 401 (Visible Emissions)** prohibits discharge into the atmosphere from any single source of emission for any contaminant for a period or periods aggregating more than three minutes in any one hour that is as dark or darker in shade than that designated as No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.
- **Rule 402 (Nuisance)** prohibits discharges of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403 (Fugitive Dust)** prohibits emissions of fugitive dust from any grading activity, storage pile, or other disturbed surface area if it crosses the project property line or if emissions caused by vehicle movement cause substantial impairment of visibility (defined as exceeding 20 percent capacity in the air). Rule 403 requires the implementation of Best Available Control Measures and includes additional provisions for projects disturbing more than five acres and those disturbing more than fifty acres.

- **Rule 445 (Wood Burning Devices)** prohibits installation of woodburning devices such as fireplaces and wood-burning stoves in new development unless the development is located at an elevation above 3,000 feet or if existing infrastructure for natural gas service is not available within 150-feet of the development. All fireplaces installed within the Proposed Project area will be natural gas fueled fireplaces.
- **Rule 481 (Spray Coating Operations)** imposes equipment and operational restrictions during construction for all spray painting and spray coating operations.
- **Rule 1108 (Cutback Asphalt)** prohibits the sale or use of any cutback asphalt containing more than 0.5 percent by volume organic compounds which evaporate at 260°C (500°F) or lower.
- **Rule 1113 (Architectural Coatings)** establishes maximum concentrations of VOCs in paints and other applications and establishes the thresholds for low-VOC coatings.
- **Rule 1143 (Consumer Paint Thinners and Multi-Purpose Solvents)** prohibits the supply, sale, manufacture, blend, package or repackage of any consumer paint thinner or multi-purpose solvent for use in the District unless consumer paint thinners or other multi-purpose solvents comply with applicable VOC content limits.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** specifies work practice requirements to limit asbestos emissions from building demolitions and renovation activities, including the removal and associated disturbance of asbestos containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, asbestos containing materials removal procedures and time schedules, asbestos containing materials handling and clean-up procedures, and storage, disposal, and land filling requirements for asbestos containing waste materials.

Local

City of Monrovia General Plan

The City's existing General Plan does not establish specific goals, policies, or standards related to air quality; however, the City's Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) included the following mitigation measures related to air quality:

- **AIR-A:** The City shall require applicants to analyze the air quality impacts of construction for each project.
- **AIR-B:** If project-level analysis demonstrates that NOx emissions would be significant, the project shall provide a plan, for approval by the City, demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased and subcontractor vehicles, shall utilize all feasible measures to reduce the emissions to a less than significant level. Acceptable options for reducing emissions may include use of late model low-emission diesel engines, alternative fuels, engine retrofit technology, and/or other options as they become available. The SCAQMD web site provides specific information on mitigation options for off-road and on-road construction equipment.

- **AIR-C:** The following measure shall be incorporated into all project specifications to reduce diesel engine emissions of O_3 precursors including ROG and NO_X, PM_{10}, $PM_{2.5}$, and diesel PM:

  Idling Restrictions. Idling of diesel-powered vehicles and equipment shall not be permitted during periods of non-active vehicle use. Diesel-powered engines shall not be allowed to idle for more than 5 consecutive minutes in a 60-minute period when the equipment is not in use, occupied by an operator, or otherwise in motion, except as follows:

  - When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control;
  - When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment;
  - To bring the equipment to the manufacturer's recommended operating temperature;
  - When the ambient temperature is below 40 degrees F or above 85 degrees F; or
  - When equipment is being repaired.
- **AIR–D:** The City shall require that all new residential fireplaces to be fueled by natural gas. Wood stoves and wood burning fireplaces shall be prohibited.
- **AIR-E:** The City shall require applicants to analyze the potential for creating a local CO hotspot due to traffic congestion that could result from implementation of projects anticipated in the proposed General Plan amendments to the Land Use and Circulation Element.
- **AIR-F:** The City shall require applicants to complete a Health Risk Assessment (HRA) to determine the cancer risk to sensitive receptors for all residential projects located within 500 feet of Interstate 210 (I-210).
- **AIR-G:** The City shall require applicants to assess the potential impacts to children's respiratory health for all residential projects located within 500 feet of I-210.

7.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts on air quality that could result from the Project. The Section also recommends mitigation measures as needed to reduce significant impacts**.**

7.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items III (a) through (d), implementation of the Project would have a significant impact related to air quality if it would:

(a) Conflict with or obstruct implementation of applicable air quality plan;

(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable Federal or State ambient air quality standard;

(c) Expose sensitive receptors to substantial pollutant concentrations (i.e., carbon monoxide hot spots or TACs); or

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

Regional Significance Thresholds

The significance thresholds in the SCAQMD's *CEQA Air Quality Handbook* were used for evaluating the impacts associated with the implementation of the Project. The SCAQMD has established mass daily thresholds for regional pollutant emissions, as shown in Table 7-4.

Table 7-4: SCAQMD Regional Emission Significance Thresholds

Air Contaminant	Construction (Maximum Pounds Per Day)	Operation (Maximum Pounds Per Day)
NO_X	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead	3	3
Source: SCAQMD 2015b.		

Localized Significance Thresholds

In addition to establishing thresholds of significance for emissions of criteria air pollutants on a regional level, the SCAQMD has also developed Local Significance Thresholds (LSTs) that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards, which would result in significant adverse localized air quality impacts. The LST methodology takes into account a number of factors, including (1) existing ambient air quality in each Source Receptor Area (SRA); (2) how many acres a project would disturb in a day; and (3) how far project construction and operational activities would take place from the nearest sensitive receptor. Unlike the regional emission significance thresholds presented in Table 7-4, LSTs have only been developed for NOx, CO, PM_{10} and $PM_{2.5}$. The construction and operational LSTs for one-acre, two-acre, and five-acre sites in SRA 9 (East San Gabriel Valley), the SRA in which Monrovia is located, are shown in Table 7-5 below.

Table 7-5: SCAQMD Localized Significance Thresholds for Source Receptor Area 9

Pollutant Monitored	Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary				
	82 Feet	164 Feet	328 Feet	656 Feet	1,640 Feet
ONE-ACRE SITE					
Construction Thresholds					
Nitrogen Oxides (NO_x)	89	112	159	251	489
Carbon Monoxide (CO)	623	945	1,914	4,803	20,721
Particulate Matter (PM_{10})	5	14	34	75	199
Particulate Matter ($PM_{2.5}$)	3	5	9	22	94
Pollutant Monitored	**Maximum Allowable Emissions (Pounds per Day) as a Function of Receptor Distance (in Feet) from Site Boundary**				
	82 Feet	**164 Feet**	**328 Feet**	**656 Feet**	**1,640 Feet**
ONE-ACRE SITE					
Operational Thresholds					
Nitrogen Oxides (NO_x)	89	112	159	251	489
Carbon Monoxide (CO)	623	945	1,914	4,803	20,721
Particulate Matter (PM_{10})	2	4	9	19	48
Particulate Matter ($PM_{2.5}$)	1	2	3	6	23
TWO-ACRE SITE					
Construction Thresholds					
Nitrogen Oxides (NO_x)	128	151	200	284	513
Carbon Monoxide (CO)	953	1,344	2,445	5,658	22,093
Particulate Matter (PM_{10})	7	22	42	84	207
Particulate Matter ($PM_{2.5}$)	5	7	12	26	100
Operational Thresholds					
Nitrogen Oxides (NO_x)	128	151	200	284	513
Carbon Monoxide (CO)	953	1,344	2,445	5,658	22,093
Particulate Matter (PM_{10})	2	6	11	20	50
Particulate Matter ($PM_{2.5}$)	2	2	3	7	25
FIVE-ACRE SITE					
Construction Thresholds					
Nitrogen Oxides (NO_x)	203	227	286	368	584
Carbon Monoxide (CO)	1,733	2,299	3,680	7,600	25,558
Particulate Matter (PM_{10})	14	43	63	105	229
Particulate Matter ($PM_{2.5}$)	8	11	17	35	116
Operational Thresholds					
Nitrogen Oxides (NO_x)	203	227	286	368	584
Carbon Monoxide (CO)	1,733	2,299	3,680	7,600	25,558
Particulate Matter (PM_{10})	4	11	16	26	55
Particulate Matter ($PM_{2.5}$)	2	3	5	9	28

Source: SCAQMD 2008, modified by MIG 2018
Note: The localized thresholds for NOx in this table account for the conversion of NO to NO_2. The emission thresholds are based on NO_2 levels, as this is the compound associated with adverse health effects.

Carbon Monoxide "Hot Spot" Thresholds

Historically, to determine whether a project poses the potential for a CO hotspot, the quantitative CO screening procedures provided in the *Transportation Project-Level Carbon Monoxide Protocol* (the Protocol) were used (UCD ITS 1997). The Protocol determines a project may worsen air quality if the project increases the percentage of vehicles in cold start modes by two percent or more; significantly increases traffic volumes by five percent or more; or worsen traffic flow, defined for signalized intersections as increasing average delay at intersections operating at level of service (LOS) E or F or causing an intersection that would operate at LOS D or better without the project, to operate at LOS E or F. With new vehicles and improvements in fuels resulting in fewer emissions, the retirement of older polluting vehicles, and new controls and programs, CO concentrations have declined dramatically in California. As a result of emissions controls on new vehicles, the number of vehicles that can idle and the length of time that vehicles can idle before emissions would trigger a CO impact has increased, so the use of LOS as an indicator is no longer applicable for determining CO impacts.

The Bay Area Air Quality Management District (BAAQMD) developed a screening-level analysis for CO hotspots in 2010 which finds that projects that are consistent with the applicable congestion management program, and that do not cause traffic volumes at affected intersections to increase to more than 44,000 vehicles per hour, would not result in a CO hotspot that could exceed State or Federal air quality standards (BAAQMD 2017 pg. 3-4). CO modeling was conducted for the SCAQMD's 2003 AQMP at four busy intersections during morning and evening peak hour periods as well. The busiest intersection studied in this analysis, Wilshire Boulevard and Veteran Avenue, had 8,062 vehicles per hour during morning peak hours, 7,719 vehicles per hour during evening peak hours, and approximately 100,000 vehicles per day. The 2003 AQMP estimated that the 1-hour CO concentration for this intersection was 4.6 ppm, which is less than a fourth of the 1-hour CAAQS CO standard (20 ppm) (SCAQMD 2003a). The BAAQMD screening threshold is generally consistent with the results of the CO modeling conducted for the SCAQMD's 2003 AQMP.

Therefore, for purposes of this EIR, the proposed Project would pose the potential for a CO hotspot if it would exceed the BAAQMD's screening traffic level for peak hour intersection traffic volumes (44,000 vehicles per hour) (thereby having the potential to result in CO concentrations that exceed 1-hour State [20 ppm], 1-hour Federal [35 ppm], and/or State and Federal 8-hour [9 ppm] ambient air quality standards for CO).

Toxic Air Contaminant Thresholds

The SCAQMD recommends preparation of a Health Risk Assessment (HRA) for large commercial or industrial projects to determine the specific health risks posed by long-term emissions of TACs from a project. Following OEHHA and SCAQMD guidance, health risks from TAC emissions are estimated based on "Individual Cancer Risk," which is the likelihood that a person exposed to TACs over 70-year lifetime will get cancer or suffer some other "non-cancer" effect (measured by what is called as a "hazard index"). Numerous weighting factors (e.g., age sensitivity factors, breathing rates, etc.) are applied during health risk calculations to account for those members of the public who may be more sensitive to pollution than others (e.g., sensitive receptors). A project is considered to have a significant impact if it results in any of the following:

- A maximum incremental cancer risk greater than or equal to 10 in one million;
- A population-wide cancer burden greater than 0.5 (in areas were cancer risk is greater than or equal to 1 in one million); or
- A chronic or acute hazard index greater than or equal to 1.0.

The California Supreme Court in *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal.4th 369 (2015) ruled CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project." The opinion also holds that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project. The Supreme Court provided the example of a project that threatens to disperse existing buried environmental contaminants that would otherwise remain undisturbed. The Court concluded that it is proper under CEQA to undertake an analysis of the dispersal of existing contaminants because such an analysis would be focused on how the project "would worsen existing conditions." The court also found that the limited number of express CEQA provisions that require analysis of the impacts of the existing environment on a project – such as impacts associated with school siting and airports – should be viewed as specific statutory exceptions to the general rule that such impacts are not properly within CEQA's scope.

Consistent with this court ruling, the impact discussion presented below focuses on the Project's effect on air quality and existing health risks, rather than the effect of existing air quality and its potential risks on the Project's residents. The analysis evaluates whether the Project would create or exacerbate adverse public health risk conditions at sensitive receptor locations, as identified in the SCAQMD's CEQA significance criteria.

7.2.2 Analysis Methodology

Construction and operational emissions associated with buildout of the Project were calculated and evaluated against regional and localized significance thresholds to determine potential impacts on air quality standards, as well as to evaluate potential impacts associated with DPM emissions on sensitive receptors. In addition, a discussion is provided below on the potential for the Project to generate CO hotspots or objectionable odors. An evaluation of whether the Project is consistent with existing plans and policies protecting air quality is also included below.

For potential environmental impacts, mitigation measures were designed to avoid or reduce each impact to a less than significant level, where possible.

7.2.3 Environmental Impacts

IMPACT AIR-1 CONSISTENCY WITH THE SCAQMD AQMP

As described in Section 7.1.1, the Project is within the South Coast Air Basin, which is under the jurisdiction of the SCAQMD. Pursuant to the methodology provided in Chapter 12 of the SCAQMD *CEQA Air Quality Handbook*, consistency with the AQMP is affirmed if a project:

1) Is consistent with the growth assumptions in the AQMP; and
2) Does not increase the frequency or severity of an air quality standards violation or cause a new one.

Consistency Criterion 1 refers to the growth forecasts and associated assumptions included in the 2016 AQMP. The 2016 AQMP was designed to achieve attainment for all criteria air pollutants within the Basin while still accommodating growth in the region. Projects that are consistent with the AQMP growth assumptions would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. Therefore, if the

growth under a project is consistent with the regional population, housing, and employment forecasts identified by SCAG in the RTP/SCS, Project implementation would be consistent with the AQMP, even if emissions could potentially exceed the SCAQMD's recommended daily emissions thresholds.

The Project would result in 302 residential units for a total population of 630 residents (see Chapter 17, Population and Housing). The 2016 RTP/SCS population and employment projections for the City of Monrovia, as well as the increase in population and employment that would occur with the implementation of the proposed Project, and other City projects that are currently under review, are shown in Table 7-6.

Table 7-6: RTP/SCS and Specific Plan Growth Assumptions

Proposed Project	**Population**	**Employment**
Arroyo at Monrovia Station	*630*	*23*
Other City Projects		
Other Past, Present, and Future Projects	2,796 (A)	541 (A)
Total Growth	**3,426**	**564**
RTC/SCS Growth 2012 - 2040	**3,500**	**3,600**
Within Growth Assumptions?	**Yes**	**Yes**

Source: SCAG 2016; MIG 2019

(A) According to the City's cumulative project list, approved, under-construction, or reasonably foreseeable residential projects (or portions of mixed-use projects). Assuming 20% of these are 2-bedroom units and based on the U.S. Census Bureau estimate of 1.56 people per bedroom (Linscott, Law, and Greenspan 2019).

(B) According to the City's cumulative project list approved, under-construction, or reasonably foreseeable non-residential projects (or portions of mixed-use projects) and based upon the U.S. Green Building Council's (2008) average SF/employee: General Office is 250 SF/employee, Hotel is 1,500 SF/employee, and General Retail (100,000 SF or less) is 550 SF/employee (Linscott, Law, and Greenspan 2019).

As shown in Table 7-6, the implementation of the Project, along with other City projects currently under review, would not exceed the growth assumptions contained in the AQMP. Furthermore, the proposed Project supports the overall goal of the AQMP. The RTP/SCS Transportation Control Measures, included as Appendix IV-C of the AQMP, are to focus new growth around transit/high quality transit areas. The proposed Project is consistent with this goal because it is located less than 0.1 miles away from the METRO Gold Line and is estimated to result in a 25% reduction in vehicle trips and vehicle miles travelled.

Consistency Criterion 2 refers to the CAAQS. SCAQMD has identified CO as the best indicator pollutant for determining whether air quality violations would occur since it is most directly related to automobile traffic, the emissions of which have been modeled by the SCAQMD to determine future air quality conditions. The CO hotspot analysis described below indicates that the Project would not result in a localized CO hotspot and, therefore, would not cause or contribute to an existing or projected air quality violation.

Potential Project impacts with respect to consistency with the SCAQMD AQMP would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT AIR-2 RESULT IN CUMULATIVELY CONSIDERABLE INCREASE IN CRITERIA POLLUTANTS

Construction Emissions

Regional Construction Emissions

Construction activities associated with development of the Project would include demolition, site preparation, grading, foundation construction, vertical building development, and architectural coating. The combustion of fuel in on- and off-site equipment would generate emissions of ROG, NO_x, CO and PM. The above-mentioned construction activities, as well as on- and off-site travel would generate dust and PM emissions. Architectural coating activities would result in the off-gassing of ROG from paints, coatings, etc. Construction is anticipated to occur over an approximate 13-month period, with initial construction activities commencing in 2019.

The Project's potential construction emissions were modeled using CalEEMod, Version 2016.321 (see Appendix C1). Construction phase and duration and the type and amount of equipment used during construction was generated using CalEEMod default assumptions and modified as necessary to reflect additional-project specific construction activities, including:

- Demolition of approximately 47,112 square feet of existing building space and associated debris hauling activities; and
- Export of 3,430 cubic yards of soil during the project's grading phase.

The unmitigated maximum daily construction emissions generated by the Project are shown in Table 7-7.

Table 7-7: Unmitigated Regional Construction Emissions Estimates

Season	Total Unmitigated Maximum Daily Emissions (Pounds Per Day)					
	ROG	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Summer 2019	4.3	44.7	32.0	0.1	5.0	2.7
Summer 2020	219.2	25.6	30.1	0.1	5.0	2.0
Winter 2019	4.5	45.0	31.0	0.1	5.0	2.7
Winter 2020	219.2	25.7	29.2	0.1	5.0	2.0
SCAQMD CEQA Threshold	75	100	550	150	150	55
Threshold Exceeded?	**Yes**	No	No	No	No	No
Source: MIG 2018 (see Appendix C1).						

As shown in Table 7-7, the maximum daily construction emissions generated by the Project would be below applicable SCAQMD thresholds for all pollutants except ROG in 2020, when peak architectural coating application activities would occur. This is considered a potentially significant impact.

To reduce potential ROG emissions generated during coating application activities to levels below SCAQMD thresholds, the City would require the applicant to implement standard condition SC

AIR-1, which requires the use of SCAQMD Rule 1113 "super compliant" coatings with a lower VOC content than the CalEEMod default assumption, as well as the application of coatings with efficient spray equipment. The City would also require the applicant to implement MM AIR-1, which imposes idling restrictions consistent with General Plan EIR Mitigation Measure AIR-C.

The standard VOC content assumption for residential and non-residential coatings is 50 and 100 grams per liter, respectively. Thus, the use of coatings with a VOC content of less than 10 grams per liter of coating would substantially reduce ROG emissions during coating application activities, as shown in Table 7-8.

Table 7-8: Mitigated Regional Construction Emissions Estimates

Season	Total Mitigated Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Summer 2019	4.4	44.7	32.0	0.1	5.0	2.7
Summer 2020	43.0	25.6	30.1	0.1	4.8	2.0
Winter 2019	4.5	45.0	31.0	0.1	5.0	2.7
Winter 2020	43.1	25.7	29.2	0.1	4.8	2.0
SCAQMD CEQA Threshold	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Source: MIG 2019a (see Appendix C1)						

As shown in Table 7-8, the maximum daily construction emissions generated by the Project would be below the SCAQMD's regional construction emission thresholds with the inclusion of standard condition SC AIR-1 and mitigation measure AIR-1. Thus, the standard conditions and mitigation measure would reduce the Project's regional construction emissions levels a less than significant impact.

Standard Conditions

SC AIR-1 Comply with South Coast Air Quality Rule 1113 to reduce VOC emissions from architectural coating applications. Prior to the issuance of a building permit for the development, the applicant shall submit, to the satisfaction of the Planning Division, a Coating Restriction Plan (CRP), consistent with South Coast Air Quality Management District (SCAQMD) guidelines. The applicant shall include in any construction contracts and/or subcontracts a requirement that contractors adhere to the requirements of the CRP. The CRP shall include a requirement that all interior and exterior residential and non-residential architectural coatings used in construction meet the SCAQMD "super compliant" coating VOC content standard of less than 10 grams of VOC per liter of coating. The CRP shall also specify the use of high-volume, low pressure spray guns during coating applications to reduce coating waste. **Requirements and Timing:** Applicant shall receive Community Development Department (Planning and Building Division's) approval of a Coating Restriction Plan (CRP) prior to receipt of building permits. **Monitoring:** City Planning staff shall conduct site inspections to ensure that the CRP is followed during construction.

Mitigation Measures

MM AIR-1: Idling Restrictions. Idling of diesel-powered vehicles and equipment shall not be permitted during periods of non-active vehicle use. Diesel-powered engines shall not be allowed

to idle for more than 5 consecutive minutes in a 60-minute period when the equipment is not in use, occupied by an operator, or otherwise in motion, except as follows:

- When equipment is forced to remain motionless because of traffic conditions or mechanical difficulties over which the operator has no control;
- When it is necessary to operate auxiliary systems installed on the equipment, only when such system operation is necessary to accomplish the intended use of the equipment;
- To bring the equipment to the manufacturer's recommended operating temperature;
- When the ambient temperature is below 40 degrees F or above 85 degrees F; or
- When equipment is being repaired.

Requirements and Timing: Mitigation measure shall be printed on construction drawings and included as a requirement in the construction contract. **Monitoring:** City Planning staff shall conduct site inspections during construction to ensure that the mitigation measure is adhered to.

Local Construction Emissions

The Project's maximum daily construction emissions are compared against the SCAQMD's-recommended LSTs in Table 7-9. Consistent with the SCAQMD's LST methodology, the emissions included in the construction LST analysis are on-site emissions only, and the LST thresholds against which these on-site emissions are compared are based on the project size, in acres, as determined using the specific equipment list generated by the CalEEMod project file and the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* (SCAQMD 2016c).[2] The LST thresholds are for SRA 9 (East San Gabriel Valley), the SRA in which the Project is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

The emissions presented in Table 7-9 incorporate certain best available control measures the project would be subject to pursuant to SCAQMD Rule 403, Fugitive Dust. Specifically, the CalEEMod project file applies a 60% to 67% total reduction in PM_{10} and $PM_{2.5}$ fugitive dust emissions through site watering (three times daily) and replacement of ground cover. These estimated reductions, which are not mitigation measures (since the Project would need to comply with Rule 403, which is included as standard condition SC AIR-2), are consistent with the reductions realized by the numerous best available control measures contained in SCAQMD Rule 403.

As shown in Table 7-9, the maximum daily on-site emissions generated during demolition, site preparation, and grading activities associated with the Project would not exceed the SCAQMD's recommended LST thresholds. The on-site emissions levels during all other construction phases (building construction, paving, architectural coating) would be less than the values presented in Table 7-9, and below the SCAQMD's LST thresholds for a 1.5-acre site (a conservative comparison since the Project area is larger than 1.5-acre in size). Thus, this impact would be less than significant.

[2] According to the SCAQMD's *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds*, the maximum number of acres disturbed on the peak day of use per crawler tractor, grader, and rubber tired dozer is 0.5 acres per 8 hour day, while the maximum number of acres disturbed on the peak day of use per scraper is 1 acre per 8 hour day.

Table 7-9: LST Construction Analysis

Construction Phase	Maximum Daily Emissions (Pounds per Day)[A]			
	NO_X	CO	PM_{10}[C]	$PM_{2.5}$[C]
Demolition				
Demolition	22.7	14.9	2.2	1.3
Site Preparation	21.5	11.9	1.5	0.9
Grading	22.7	10.2	3.6	2.3
Building Construction 2019	18.9	15.3	1.1	1.0
Building Construction 2020	17.4	14.9	0.9	0.9
Paving	11.6	11.8	0.7	0.6
Architectural Coating	1.7	1.8	0.1	0.1
SCAQMD LST Threshold (1.5-Acre)[B]	**108.5**	**784.0**	**6.0**	**3.9**
Threshold Exceeded?	No	No	No	No

Source: MIG 2019a (see Appendix C1)

(A) Emissions presented are worst-case total emissions and may reflect summer or winter emissions levels.

(B) Grading would involve the use of one grader and one rubber-tired dozer, which equals a 1.5-acre project site for LST purposes (1*1.0)+(1*0.5)=1.5. Accordingly, a 1.5-acre LST threshold was developed using linear regression.

(C) PM emissions assume compliance with SCAQMD Rule 403 best available control measures for site watering and replacing ground cover.

Standard Conditions

SC AIR-2: Comply with South Coast Air Quality Management District Rule 403, Fugitive Dust, by incorporating best available control measures during construction. **Requirements and Timing:** Standard condition shall be printed on construction drawings and included as a requirement in the construction contract. **Monitoring:** City Planning staff shall conduct site inspections during construction to ensure that the standard condition is adhered to.

Mitigation Measures

No mitigation measures are required

Operational Emissions

Regional Operational Emissions

Once operational, the Project would result in long-term emissions from area, energy, and mobile sources. The net change in emissions of regulated air pollutants was modeled using CalEEMod, Version 2016.3.2. The operational emissions for the Project were modeled based on the project's first full year of operation (2022), using default data assumptions provided by CalEEMod, with the following project-specific modifications:

- The default trip generation rates for the existing land use types were replaced with trip generation rates contained in the Traffic Impact Study (TIS) (see Chapter 19 and Appendix J).

- The default lighting energy efficiency intensity values for non-residential land uses were adjusted downwards to reflect the recent adoption of the 2019 energy efficiency standards. The 2019 energy efficiency standards took effect on January 1, 2020, and will reduce energy use from residential and non-residential development through the required installation of solar photovoltaic systems, electric demand response compliance options such as battery storage systems, stronger building envelope insulation for attics, walls, and windows, and use of light-emitting diode lighting systems.
- Woodstoves and hearths were excluded pursuant to City General Plan requirements and SCAQMD Rule 445.
- One 50-horsepower diesel-fueled back-up generator and one 50-horsepower, diesel-fueled fire pump were presumed to be present on-site and operate a total of 18 hours per year.

The net change in long-term operational emissions that would be generated by buildout of the Project is shown in Table 7-10 below.

Table 7-10: Operational Emissions Estimates

Emission Scenario	Maximum Daily Emissions (Pounds Per Day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources	8.6	4.5	26.8	0.0	0.5	0.5
Energy Sources	0.1	1.0	0.4	0.0	0.1	0.1
Mobile Sources	2.3	4.3	32.0	0.1	9.8	2.7
Total Emissions(B)	11.0	9.9	59.3	0.1	10.4	3.3
Total Existing Emissions(C)	4.1	4.1	16.1	0.0	3.3	1.4
Net Change in Emissions Levels						
Total Net Change	+7.0	+5.8	+43.1	+0.1	+6.9	+1.9
SCAQMD CEQA Threshold	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: MIG 2019a (see Appendix C1)

(A) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. Maximum daily ROG, CO, SOX emissions occur during the summer. Maximum daily NOX emissions occur during the winter. In general, due to rounding, there is no difference between summer and winter PM10 and PM2.5 emissions levels for the purposes of this table.

(B) Totals may not equal due to rounding. Stationary sources would add less than 0.000 pounds per day of emissions to the project's area, energy, and mobile source total.

(C) See Table 7-3.

As shown in Table 7-10, the maximum daily operational emissions associated with the proposed Project would not exceed the SCAQMD's recommended regional pollutant thresholds for all pollutants. This impact would be less than significant.

Standard Conditions

SC AIR-3: Natural Gas Fireplaces. All residential fireplaces installed shall be fueled by natural gas. Wood stoves and wood burning fireplaces shall be prohibited. (Consistent with General Plan EIR Mitigation Measure AIR-D). **Requirements and Timing:** Standard condition shall be printed

on construction drawings. **Monitoring:** City Planning staff shall conduct site inspections during construction to confirm condition is adhered to.

Mitigation Measures

No mitigation measures are required.

Local Operational Emissions

The Project maximum daily operational emissions are compared against the SCAQMD's-recommended LSTs in Table 7-11. Consistent with the SCAQMD's LST methodology, the emissions included in the operational LST analysis are on-site emissions only, and the LST thresholds against which these on-site emissions are compared are based on the project size, in acres. The LST thresholds are for SRA 9 (East San Gabriel Valley), the SRA in which the Project area is located, and are based on a receptor distance of 25 meters (82 feet), the closest LST receptor distance threshold recommended for use by the SCAQMD.

Table 7-11: LST Operational Analysis

Emissions	Maximum On-Site Pollutant Emissions (Pounds Per Day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area Sources	4.5	26.8	0.0	0.5
Energy Sources	1.0	0.4	0.0	0.1
Mobile Sources(A)	0.1	0.7	<0.00	0.1
Stationary Sources	<0.00(B)	<0.00(B)	<0.00(B)	<0.00(B)
Subtotal Emissions(C)	5.6	27.9	0.0	0.7
SCAQMD LST Threshold(D)	128	953	2	2
Threshold Exceeded?	No	No	No	No

Source: MIG 2019a
(see Appendix C1)

(A) Mobile source emissions estimates reflect potential on-site vehicle emissions only and were derived by assuming 2% of operational mobile source emissions in Table 7-10 will occur on site.

(B) "<0.00" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01 but larger than 0.000.

(C) Emissions presented are worst-case emissions and may reflect summer or winter emissions levels. In general, due to rounding, there is no difference between summer and winter emissions levels for the purposes of this table.

(D) LST threshold is conservatively based on a 2.0-acre project size and 25-meter (82-foot) receptor distance.

As shown in Table 7-11, the maximum daily on-site emissions generated during operation of the Project would not exceed the SCAQMD's recommended LST thresholds. This impact would be less than significant.

Standard Conditions

Refer to standard condition SC AIR-3 above.

Mitigation Measures

No mitigation measures are required.

IMPACT AIR-3 EXPOSURE OF SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS

CO Hotspots

Based on the TIS (see Appendix J), the maximum number of vehicles moving through any study intersection would be substantially below the screening threshold of 44,000 vehicles per hour for a CO hotspot analysis. Therefore, the Project would not cause or significantly contribute to CO concentrations that exceed State or Federal ambient air quality standards for CO. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Construction Fugitive Dust and DPM Emissions

Construction activities associated with the Project would result in demolition, site preparation, grading, and other activities that would generate fugitive dust; however, as shown in Table 7-9, the total PM_{10} and $PM_{2.5}$ emissions generated during construction of the Project would be below SCAQMD LST thresholds during demolition, site preparation, grading, and all other construction activities. The SCAQMD's LST thresholds represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state AAQS. Thus, since Project construction emissions would not exceed applicable LST thresholds, the Project would not expose sensitive receptors to substantial fugitive dust concentrations.

A portion of the PM_{10} and $PM_{2.5}$ emissions generated during construction of the Project would be DPM. DPM is a TAC that can potentially cause substantial adverse health risks at concentrations lower than the ambient air quality standards for PM_{10} and $PM_{2.5}$ set by the federal and state CAA. Equipment with diesel engines would be used during all phases of the Project's development, and some construction activities would occur as close as approximately 20 feet away from sensitive receptor locations (e.g., 20 feet away from the property boundary of 230 W. Evergreen Avenue and 82 feet away from receptors across South Primrose Avenue and South Myrtle Avenue), although most construction activities on the interior of the Project site would occur 200 feet or more from sensitive receptor locations.

Project construction activities would not expose nearby sensitive receptors to substantial levels of DPM that would pose a significant adverse health risk for several reasons. First, the Project includes mitigation (MM AIR-1) to reduce DPM from equipment idling, which would directly reduce the potential health risks at nearby sensitive receptor locations. Second, as shown in Figure 7-1, below, the prevailing daytime wind direction at the nearest meteorological station maintained by the SCAQMD, in Azusa (less than five miles east of the project site), is from the west/southwest. Wind conditions at this location are considered representative of wind conditions at the Project site, meaning that DPM emissions generated by construction equipment would generally be pushed to the east/northeast, away from the closest sensitive residential receptors, and pollutants would quickly disperse over distance. Finally, potential long-term adverse health risks from DPM are evaluated assuming a constant exposure to emissions over a 70-year lifetime, 24 hours a day, seven days a week, with increased risks generally associated with increased proximity to emissions sources. Since construction activities would only generate DPM emissions on an

intermittent, short-term basis, DPM emissions from construction activities would be unlikely to result in adverse health effects to existing sensitive receptors that exceed the SCAQMD's significance criteria[3]. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Exacerbation of Existing I-210 Environmental Risks

As described below under "I-210 Emissions and Associated Health Risks", the proposed Project would be exposed to DPM emissions and associated adverse health risks from vehicle traffic on the adjacent I-210. Although the potential effect of I-210 emissions on the future residential receptors associated with the proposed Project is not considered an impact of the project for the purposes of CEQA (see discussion below), the proposed Project's potential to exacerbate existing I-210 DPM emissions and corresponding adverse health hazards is within the scope of CEQA and is evaluated below.

According to Caltrans traffic data, the segment of the I-210 adjacent to the Project area carries approximately 252,000 vehicles per day. Based on CARB's EMFAC2017 model, approximately 3.8% of all vehicles in the Los Angeles (South Coast) region are diesel vehicles, meaning there are approximately 9,585 diesel vehicles that pass by the Project area on a daily basis, emit DPM, and contribute to potential existing adverse health risks (see Table 7-13 below.)

The Project would not significantly exacerbate I-210 emissions for several reasons. First, according to the TIS, the Project would generate 1,938 total daily vehicle trips, of which approximately 74 (3.8%) would be diesel trips (based on the regional percentage of diesel vehicles in the Los Angeles sub-region). Even if all Project trips were added to the I-210 (which would not be the case), the Project would increase diesel vehicle trips on the I-210 by less than 0.8% on a daily basis. Furthermore, as shown in Table 7-13 below, the predominant vehicle types that contribute to diesel emission on the I-210 are trucks and buses. Automobiles and light duty trucks that are most likely to be generated by the Project represent less than 3% of the total daily DPM emissions (and associated risk) generated by vehicle traffic on the I-210 adjacent to the Project. This means that the Project could, at worst case, change DPM emissions adjacent to the Project area by no more than approximately 2%[4]. This change is not considered a significant exacerbation of the existing conditions and, therefore, is a less than significant impact.

Other Project Information

The Project area ranges from approximately 130 feet to 350 feet south of the I-210, an existing local source of DPM emissions[5]. Buildout of the Project would result in the placement of new sensitive residential receptors within 500 feet of the I-210.

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[3] The SCAQMD has established the following thresholds of significance for projects that generate TAC emissions: 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). However, they have not developed thresholds for sensitive receptor projects located near existing TAC emissions sources.

[4] This estimate assumes the Project results in a 0.8% increase in traffic associated with approximately 3% of the daily DPM emissions shown in 7-13.

[5] Gasoline and diesel-fueled vehicles travelling on the I-210 would emit other TACs besides DPM; however, these other TACs would be emitted in much lower quantities than DPM. In addition, the SCAQMD's MATES

According to the SCAQMD's MATES IV Carcinogenic Risk Map, the existing carcinogenic risk in the vicinity of the Project area south of I-210 is 1,456 (SCAQMD 2018d). The estimated carcinogenic risks north of I-210 in the vicinity of the Project area are 1,142. These estimates reflect regional modeling efforts that largely do not account for site-specific emission rates and dispersion characteristics that typically result in refined and substantially lower health risk estimates.

According to the Office of Environmental Health Hazard Assessment (OEHHA) CalEnviroScreen 3.0 Map, the Project is in census tract 6037431100 and has an average pollution indicator percentile of 75% to 80% based on the CalEnviroScreen indicators (e.g., exposure, environmental effects, population characteristics, socioeconomic factors) (OEHHA 2018). CalEnviroScreen is a mapping tool that helps identify California communities that are most affected by many sources of pollution, and where people are often especially vulnerable to pollution's effects. The tool uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are then mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. Since the Project area's census tract is in the top 25% in scoring according to the CalEnviroScreen methodology, it is considered a disadvantaged community pursuant to Senate Bill (SB) 535, which allocates funding from the state's Cap and Trade Program to disadvantaged communities (OEHHA 2017a, 2017b).

The CalEnviroScreen data indicates approximately 38 people per 10,000 people in the Project area's census tract visited an emergency facility for asthma-related health issues. This rate places the Project area's census tract in the 38th percentile, meaning the asthma rate in this census tract is higher than 38% of the census tracts in the State (OEHHA 2018).

It is noted the City of Monrovia has policies that address the evaluation of existing conditions such as cancer risks and children's respiratory health[6]. Pursuant to these policies, a Health Risk Assessment (HRA) was conducted to evaluate the potential health hazards to new residential receptors in the Project area from the I-210. In addition, an evaluation of the potential effects on children's respiratory health that may result due to the Project's proximity to the I-210 is provided below.

The disclosure of these evaluations is consistent with one of the primary objectives of CEQA and this document, which is to provide objective information to decision-makers and the public regarding the project as a whole. In its *CBIA v. BAAQMD* decision, the California Supreme Court noted CEQA allows a lead agency to include information of interest even if that information is not evaluated for significance, because it is not an impact as defined by CEQA. Therefore, in addition to describing the impacts of the Project on the environment (see discussion under "Exacerbation of Existing I-210 Environmental Risks"), the analysis below discloses the effects of locating the Project near a source of air emissions (i.e., the I-210) that can pose a health risk to future residents.

IV study continues to identify DPM as the primary contributor to mobile source risks estimates. Accordingly, this EIR focuses on the risk from DPM emitted by vehicles travelling on the I-210 as an overall indicator of potential adverse health risks from mobile sources operating near the site.

[6] The City's 2008 Land Use and Circulation Element EIR included Mitigation Measures AIR-F and AIR-G, which require applications to complete a health risk assessment to determine cancer risk to sensitive receptors for all residential projects located within 500 feet of I-210 (AIR-F), as well as the potential impacts to children's respiratory health for all residential projects located within 500 feet of the I-210 (AIR-G) (City of Monrovia 2008).

I-210 Emissions and Associated Health Risks

The operational HRA was conducted consistent with the guidance and recommendations contained in the SCAQMD's California Environmental Quality Act (CEQA) *Air Quality Handbook*, as amended and supplemented (SCAQMD 2017a), SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* (SCAQMD 2003b), and the California Office of Environmental Health Hazard Assessment's (OEHHA) *Air Toxics Hot Spots Program Guidance Manual* (OEHHA 2015).

The US EPA's AERMOD dispersion model (Version 18081) was used to predict DPM concentrations at the project boundary. The AERMOD dispersion model is a U.S. EPA-approved and SCAQMD-recommended model for simulating the dispersion of pollutant emissions and estimating ground level concentrations of pollutants at specified receptor locations. AERMOD requires the user to input information on the source(s) of pollutants being modeled, the receptors where pollutant concentrations are modeled, and the meteorology, terrain, and other factors that affect the potential dispersion of pollutants. These variables are summarized below and shown in detail in Appendix C2.

Modeled I-210 Sources and Emissions Rates

Emissions from the I-210 were modeled as a polygon-area source, as shown in Table 7-12. The area source representing the freeway was extended approximately 1,000 feet to the west and east of the Project area boundary to capture emissions emanating from the I-210 both adjacent and in close proximity to the Project area. The total length of the I-210 modeled was approximately 3,800 feet, or 0.64 miles.

Table 7-12: Modeled I-210 Emissions Source Location

Source ID	Description	UTM Coordinates (Zone 11N)(A)		Size (m^2)
		Easting	Northing	
PAREA1	I-210 Freeway Travel Lanes	406923.15	3777692.99	46,564.8
Source: MIG 2019b (see Appendix C2) Coordinates are for the southwest corner of the source.				

Consistent with SCAQMD recommendations, PM_{10} exhaust from diesel vehicles travelling along the I-210 was evaluated in the HRA. The emission rate for the segment of I-210 modeled in the operational HRA was derived from diesel vehicle emission factors and vehicle population data contained in CARB's EMFAC model and annual average daily traffic volume data available from Caltrans. Using EMFAC data (for the Los Angeles South Coast Sub-Area), an average diesel emission factor, in terms of grams per mile, was developed for each vehicle class, based on a speed of 55 miles per hour (mph) for school buses and 65 MPH for all other vehicle types. Then the population percentage for each vehicle class was multiplied by the annual average daily trips (AADT) for the segment of I-210 adjacent to the Project area, between Huntington Drive and South Myrtle Avenue (252,000 vehicles), to determine the total amount of diesel vehicles traveling adjacent to the Project area[7]. This diesel vehicle estimate was then multiplied by the total segment length (0.64 miles) to determine the total miles travelled by each vehicle class. The total miles travelled were then multiplied by the average emission factor to determine total diesel vehicle

[7] According to Caltrans' traffic data, the annual average daily traffic (AADT) volume east of Myrtle Avenue is 252,000 vehicles while the AADT west of Myrtle Avenue is 246,000 vehicles. This Report uses the higher AADT value (252,000 vehicles) for the segment of the I-210 modeled (both east and west of Myrtle Avenue).

emissions emitted from the modeled portion of I-210. Table 7-13 summarizes the average emission factors, vehicle class population percentage, vehicle miles traveled, and total diesel emissions occurring within the modeled source.

Table 7-13: PM_{10} Emission Factors

Vehicle Class	2022 - 2050 Average PM10 Emission Factor (Grams/Mile)(A)	2022 Diesel Vehicle Population(B)	Vehicle Population Percentage(B)	I-210 ADT	Class Vehicles on I-210(C)	Trip Length (miles)	Total Daily Class Miles(D)	Total Daily PM_{10} (Grams)(E)	Total Daily PM_{10} (Grams/Sec)(F)
LDA	0.001852246	34,751	0.46%	252,000	1,157	0.64	741	1.37197	1.58793E-05
LDT1	0.03185804	271	0.00%	252,000	9	0.64	6	0.18379	2.12714E-06
LDT2	0.003402849	8,920	0.12%	252,000	297	0.64	190	0.64701	7.48848E-06
LHDT1	0.00623252	64,097	0.85%	252,000	2,135	0.64	1,366	8.51500	9.85532E-05
LHDT2	0.010840485	25,927	0.34%	252,000	863	0.64	553	5.99084	6.93385E-05
HHDT	0.034086662	56,923	0.75%	252,000	1,896	0.64	1,213	41.3577	0.000478677
MDV	0.001443049	19,517	0.26%	252,000	650	0.64	416	0.60030	6.94792E-06
MH	0.040468538	5,865	0.08%	252,000	195	0.64	125	5.05929	5.85566E-05
MHDT	0.016485717	64,993	0.86%	252,000	2,165	0.64	1,385	22.8380	0.000264329
OBUS	0.024065833	3,064	0.04%	252,000	102	0.64	65	1.57166	1.81905E-05
SBUS	0.018773815	3,460	0.05%	252,000	115	0.64	74	1.38462	1.60257E-05
UBUS	0.004388309	10	0.00%	252,000	0	0.64	0	0.00095	1.09763E-08
ALL DSL	0.014593326	287,799	3.80%	252,000	9,585	0.64	6,134	89.5211	0.001036124

Source: EMFAC2017 and Caltrans 2017 (see Appendix C2).

(A) Emission factors represent the average emission factor for the vehicle class over the 2022 to 2050 time period. Emission factors are reported for a speed of 55 miles per hour for school buses (SBUS) and 65 miles per hour for all other vehicle classes

(B) Population and population percentage reflects the proportion of each vehicle class out of the total amount of vehicles in the Los Angeles (South Coast) sub-area.

(C) Class vehicle amounts are estimated by multiplying the vehicle population percentage times 252,000 (the AADT on I-210).

(D) Total daily vehicle miles travelled is estimated by multiplying class vehicles times trip length (i.e., distance traveled in the modeled source).

(E) Total Daily emissions is estimated by multiplying the vehicle miles travelled by the average emission factor.

(F) Grams per second is derived based on 86,400 seconds per day.

The release height for the modeled source was set to 3.28 meters to approximate an average of height of all vehicle exhaust sources.

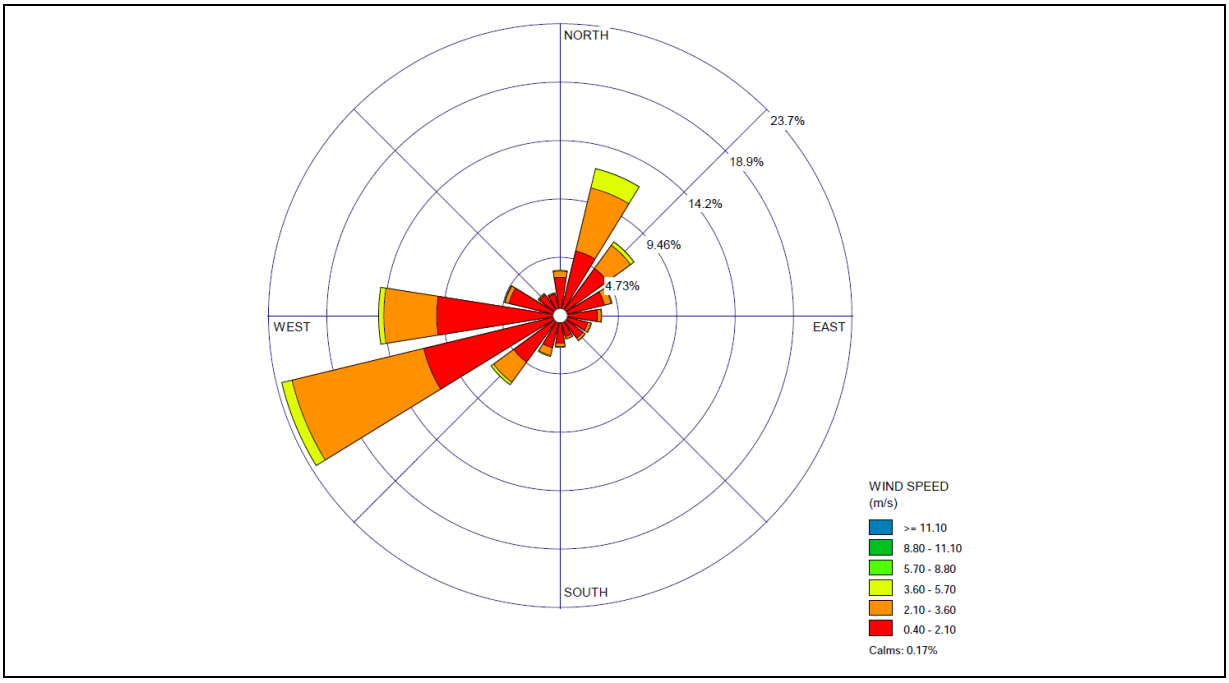
Meteorological Data, Terrain, and Modeled Receptors

In addition to information on the sources of pollutant's being modeled, AERMOD requires the user to input information on the receptors where pollutant concentrations are modeled, and the meteorology, terrain, and other factors that affect the potential dispersion of pollutants. These variables are described below and in detail in Appendix C2:

- *Meteorological Data Inputs:* AERMOD requires surface meteorological data, upper air meteorological data, and surface parameter data such as albedo (reflectivity) and surface roughness. For the proposed project, pre-processed surface data from the SCAQMD was obtained for the Azusa meteorological station, the closest meteorological station to the proposed project site. Five complete years of meteorological data from January 2012 to

December 2016 were utilized; the SCAQMD data set incorporates the U.S. EPA's option for adjusted surface friction velocity factors (μ*) under low and stable wind conditions. Emissions were presumed to be generated 24-hours per day. The wind rose for the Azusa meteorological station data set is shown in Figure 7-1.

Figure 7-1 Wind Rose for Azusa Meteorological Station



- *Terrain Inputs:* Terrain was incorporated by using AERMAP (an AERMOD pre-processer) to import the elevation of the project site and surrounding area using data from the National Elevation Dataset with a resolution of 1/3 arcsecond.
- *Modeled Receptors:* Emissions were modeled in a multiple-tier fenceline grid. The first tier consisted of 5-meter spacing from the fenceline for a distance of 25 meters; the second tier consisted of 100 meter spacing for an additional distance of 400 meters. Primary and intermediate receptors were also spaced every 5 meters along the fenceline. The receptor grids were then converted to discrete Cartesian receptors (2,490 in total). Receptors were modeled at a height of 0.0 meters (i.e., ground-level) and 10.0 meters (i.e., upper-levels) above the ground.

Estimated Cancer Risk

Cancer risk is the calculated, pollutant-specific estimated probability of developing cancer based upon the dose and exposure to the TAC. Cancer risk is determined by calculating the combinatory effects of the cancer potency factor (CPF) when inhaling the toxic, the daily inhalation dose, the age group the receptor is cohort to, the duration of exposure over a lifetime (30 years), and other factors such as age sensitivity and the amount of time spent at the location of exposure. The potential cancer risk associated with emissions from the I-210 was assessed for the maximally exposed individual resident (MEIR) over a 30-year exposure duration (that characterizes the maximum residency tendency in California). Residential risk calculations account for presumed sensitivity to carcinogens and differences in intake rates

for the third-trimester to birth, birth to two-years, two-years to nine-years, two-years to 16-years, and 16-year to 30-years age bins. Concentrations were modeled using AERMOD and then input into CARB's Hot Spots and Reporting Program (HARP2) Health Risk Assessment Standalone Tool (RAST) to calculate cancer risk based on the methods and recommendations found in the OEHHA HRA Guidelines. The RAST intake rate percentile was set to the 95th percentile and the FAH factor was applied to age bins less than 16 years.

The resulting annual average DPM concentration and corresponding excess cancer risk at the PMI and MEIR are summarized in Table 7-14. The PMI is located off-site, in the I-210 Freeway right-of-way, and would not be occupied by residential receptors; cancer risks at this location, therefore, were not estimated. The MEIR is located at the northeast corner of the proposed Project area. The incremental increase in cancer risk at this location is 28.2 in one million[8]. Modeled sources, receptor locations, DPM concentrations, and the locations of the PMI and MEIR are depicted on Figure 7-2.

Table 7-14 Estimated Cancer Risk at PMI and MEIR

Receptor	UTM Location		Annual Average DPM Concentration ($\mu g/m^3$)	Excess Cancer Risk (per million population)
	Easting	Northing		
PMI(A)	407139.32	3777659.23	0.109	--
Ground-level MEIR(B)	407516.54	3777566.93	0.041	28.2

Source: MIG 2019b (see Appendix C2)

(A) The PMI is located in the I-210 Freeway right-of-way and is not an occupied receptor location.

As shown in Table 7-14 and Figure 7-2, the results of the modeling indicate that, in general, DPM concentrations are higher on the northern side of the Project area. This is due to the proximity of the northern Project boundary to the I-210. In general, the estimated cancer risks along the northern Project area boundary range from 26.6 to 28.2, while risks along the southern Project area boundary range from 13.6 to 20.9 (see Appendix C2 for more details). These uncontrolled, site-specific cancer risks are much lower than the SCAQMD's MATES IV results, but still above the SCAQMD recommended cancer risk threshold of 10 cases of cancer per million population (by a factor of approximately 2.8 at the worst-case MEIR location).

Vehicle emissions from the I-210 could have an adverse impact on sensitive receptors in the Project area; however, it is important to note that cancer risks estimated for portion of the I-210 in close proximity to the site are conservative and are likely to overestimate potential risks for the following reasons:

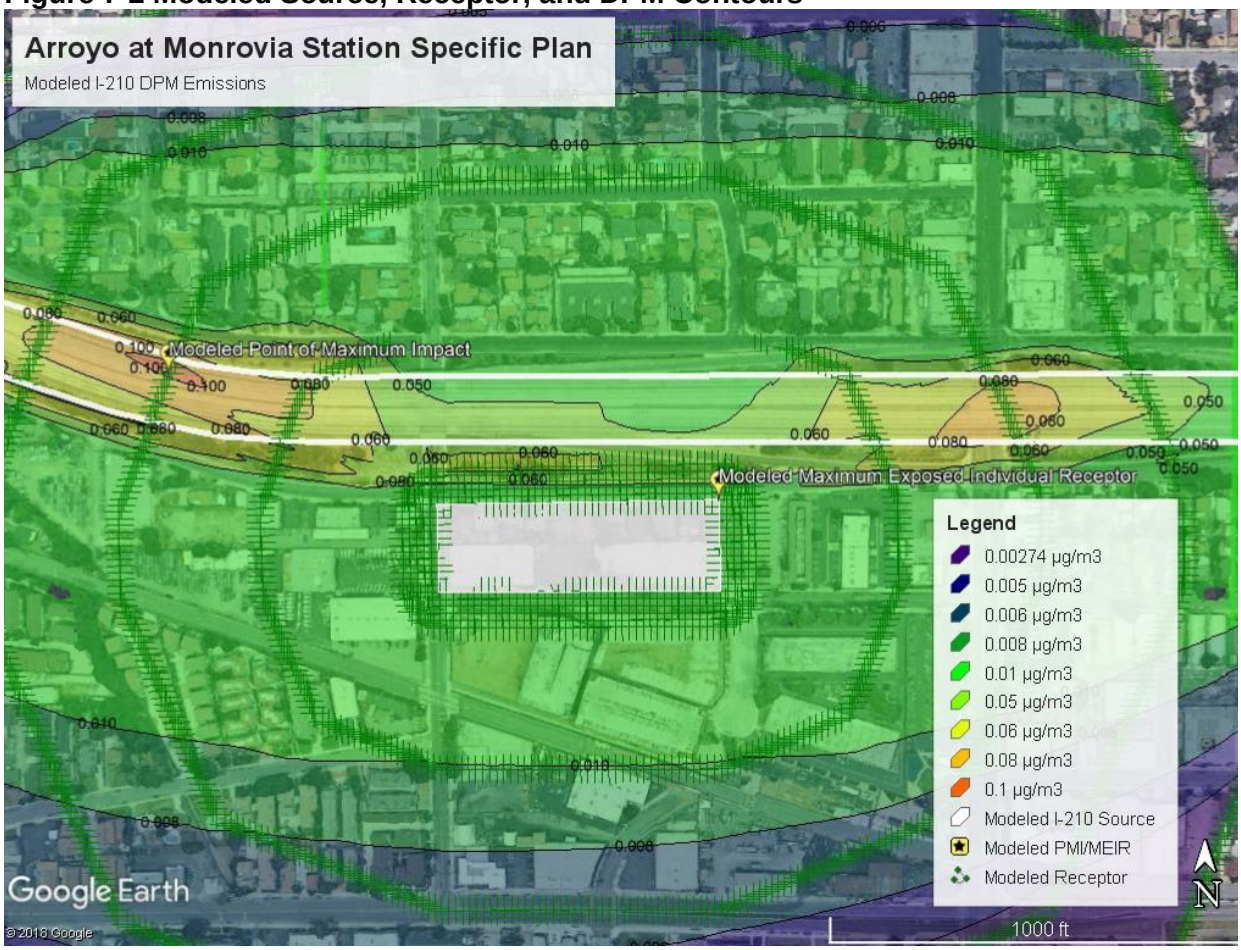
1. The HRA estimates are based on near continuous exterior exposure at property line locations. Concentrations within the interior of the property where receptors would actually be located would be lower. Consistent with CARB's Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways (CARB 2017), the Project design promotes air flow and pollutant dispersion in the following ways.
    a. The HRA estimates are based on near continuous exterior exposure at property line locations. The Arroyo at Monrovia Station Specific Plan was specifically

[8] Though concentrations for upper-level receptors were also modeled, ground-level concentrations resulted in higher risks and are therefore presented as the MEIR.

designed to place building massing in the northern portions of the Specific Plan area and to orient buildings to screen future residents from noise and pollutant emissions from the I-210. Plazas and other areas where residents may gather outside are concentrated in the southern or central areas of the Specific Plan area. Therefore, pollutant concentrations where receptors would actually be located would be lower than modeled concentrations).

b. The segment of the I-210 adjacent to the Project area includes a solid sound barrier. Such barriers have been found to significantly reduce near-road pollution concentrations for a variety of pollutants, by as much as 50% within approximately 165 feet of the barrier, and 30% within approximately 1,000 feet of the barrier.

Figure 7-2 Modeled Source, Receptor, and DPM Contours



2. The Project is an infill, transit-oriented development that would result in an overall reduction of vehicle miles traveled by residents and workers in the City of Monrovia, thereby reducing overall traffic in the City and along the I-210. This is one of CARB's strategies for reducing air pollution exposure near high-volume roadways (CARB 2017).
3. The HRA does not take into account any reductions in PM that would be achieved by mechanically supplied air systems. Specifically, the 2019 amendments made to the California Building Standards Code, set to go into effect on January 1, 2020, would require high-rise multifamily dwellings within 500 feet of busy roadways (more than 100,000 ADT)

to use HVAC systems and filters with a Minimum Efficiency Rating Value (MERV) of 13[9]. MERV-13 filters can remove up to 90% of particles less than 10 microns in size, which would result in a corresponding reduction in exposure to PM_{10} and associated adverse health risks by 90%. While the California Building Standards code would require these HVAC systems to be appropriately designed and sized for individual dwelling units, the long-term air quality benefit and risk reduction realized by these enhanced filtration systems would be dependent in part, on individual owners and occupants of each dwelling unit (due to system maintenance and filter replacement requirements). Nonetheless, less efficient filters, such as a MERV-8, can remove up to 70% of particles less than 10 microns in size, which would result in a corresponding reduction in exposure to PM10 and associated adverse health risks by 70%. A 70% reduction in modeled PM concentrations (i.e., indoor air quality levels) would reduce risks to levels below the SCAQMD threshold.

For the reasons outlined above, the modeled concentrations at the Project boundary are likely overestimates of potential DPM exposure and associated cancer risks. In addition, it is reasonable to assume that installation of HVAC systems with MERV-8 or MERV-13 filters in the Project area would reduce potential cancer risks resulting from DPM to levels below SCAQMD significance thresholds, although the exact level of reduction that would be realized from these filters cannot be known with certainty. For full effectiveness, the HVAC system must be in operation at all times while residents are inside their unit and must be properly maintained, which may or may not occur.

Cancer Burden

Cancer burden is the product of public cancer risk and the population exposed to the carcinogen. The population of the Project is estimated to be 630 people. Using the highest modeled residential exposure (i.e., the MEIR), the average cancer risk based on the lifetime exposure scenario (70 years) is 2.82E-05 (approximately 28 cases per million people). The product of cancer risk and the estimated population is 0.02 and is below the SCAQMD threshold of 0.5 excess cancer cases in the Project population.

Non-Carcinogenic Risks

The chronic non-cancer hazard quotient is the calculated pollutant-specific indicator for risk of developing an adverse health effect on specific organ system(s) targeted by the identified TAC, in this case DPM. The potential for exposure to result in chronic non-cancer effects is evaluated by comparing the estimated annual average air concentration to the chemical-specific, non-cancer chronic RELs. The REL is a concentration below which there is assumed to be no observable adverse health impact to a target organ system. When calculated for a single chemical, the comparison yields a ratio termed a hazard quotient. To evaluate the potential for adverse chronic non-cancer health effects from simultaneous exposure to multiple chemicals, the hazard quotients for all chemicals are summed, yielding a hazard index. The chronic REL for DPM was established by OEHHA as 5 µg/m3. For an acute hazard quotient, the one-hour maximum concentration is divided by the acute REL for the substance; however, there is no acute REL for DPM.

[9] A high-rise building is defined by the California Building Code as any building used for human occupancy greater than 55 feet above the lowest level of Fire Department vehicle access. For the purposes of compliance with prescriptive indoor air quality requirements, the building energy efficiency standards consider a high-rise residential building to be any building with four or more habitable stories.

As shown in Table 7-14, the annual average DPM concentration at the MEIR is 0.041 µg/m3, which yields a chronic hazard quotient of 0.01 This value does not exceed the SCAQMD's non-carcinogenic risk threshold of 1. Please refer to Appendix C2 for non-carcinogenic risk calculations.

Children's Respiratory Health

The presence of pollutants in ambient and indoor air, as well as other factors such as humidity level, can affect respiratory health by making it harder to breath, damaging tissue, and/or modifying symptoms of pre-existing conditions. Most pollutants can affect respiratory health. PM can pass through the throat and lungs and if small enough even enter the bloodstream. CO can reduce oxygen delivery to the body's organs. NO_X can inflame the respiratory tract. In particular, air pollutants, can trigger asthmatic responses.

According to the OEHHA CalEnviroScreen 3.0 report (2017a), asthma is a disease that affects the lungs and makes it hard to breathe. Symptoms include breathlessness, wheezing, coughing, and chest tightness. While the causes of asthma are poorly understood, it is well established that exposure to traffic and outdoor air pollutants, including PM, O_3, and DPM can trigger asthma attacks. Nearly three million Californians currently have asthma and about five million have had it at some point in their lives. Children, the elderly and low-income Californians suffer disproportionately from asthma. Asthma increases an individual's sensitivity to pollutants. Children living near major roadways and traffic corridors in California have been shown to suffer disproportionate rates of asthma, and DPM has been implicated as a potential cause of new-onset asthma (CARB 2017).

As described in Section 2.1.8 of the Air Quality and Greenhouse Gas Report (Appendix C1), CalEnviroScreen data indicates the Project area's census tract is in the 38th percentile for asthma, meaning the asthma rate in this census tract is higher than 38% of the census tracts in the state (OEHHA 2018). This factor indicates that adverse respiratory health in the general vicinity of the Project is somewhat less prevalent than in other parts of the state.

As described above, the Project's emissions of air pollutants would be below SCAQMD-recommended LST thresholds, which represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable Federal or State ambient air quality standards. In developing the CAAQS and NAAQS, the U.S. EPA and CARB considered scientific evidence linking exposure to air pollutants to health risks, including the potential to exacerbate asthma symptoms. Although each individual's health characteristics, environment, and pre-disposition to adverse respiratory health effects is different, compliance with the CAAQS and NAAQS, as well as health risk thresholds, is intended to protect the most sensitive individuals, including and especially, children.

Although the Project is in close proximity to the I-210, the existing freeway solid barrier sound wall blocks DPM emissions and is likely to reduce exposure to I-210 emissions in the Project area to levels less than that identified in the HRA. It is important to note that the HRA conducted for the Project predicted an annual average DPM concentration at the MEIR of 0.041 µg/m^3. This modeled, modeled annual average concentration is substantially less than the 5 µg/m^3 DPM chronic REL established by the U.S. EPA as "an estimate of a continuous inhalation exposure to the human population, including sensitive subgroups, with uncertainty spanning perhaps an order of magnitude, that is likely to be without appreciable risks of deleterious non-cancer effects during a lifetime. The [inhalation reference concentration] methodology assumes that there is an

exposure threshold below which effects would not occur (U.S. EPA 2002, Page 9-18)." The maximum annual average concentration that project receptors would be exposed to would be less than 1% of the annual average concentration established to be protective of non-carcinogenic risks to humans, including children. Acute (1-hour) concentrations of pollutants can be 3 to 10 times higher than annual average concentrations; however, even at a factor of 10, potential DPM concentrations would be substantially less than the chronic REL established for DPM (i.e., substantially less than the concentration the U.S. EPA has set as the level that is likely without appreciable of non-carcinogenic effects).

In addition, the Project design includes features that would promote air flow through the site and the dispersal of pollutants away from the new residential area. Furthermore, the Project would be subject to State building code requirements for the installation of mechanically supplied air systems capable of filtering approximately 70% to 90% of fine particles from the ambient air.

Although localized concentrations of DPM and other air pollutants may, depending on individual susceptibility and other factors outside the scope of this EIR (e.g., humidity, individual activities such as cooking that lead to indoor air pollution, etc.) may trigger asthmatic or other adverse respiratory system responses, the proposed Project is not anticipated to substantially exacerbate existing risks from the I-210 and has incorporated site design features to reduce potential effects on children's respiratory health that may result from the Project's proximity to the I-210. Mitigation Measure MM AIR-2 has been included to ensure that impacts remain at less than significant levels.

Mitigation Measures

MM AIR-2: For all new residential units in the Project area, the developer shall install, and owner maintain, HVAC systems with air filters meeting or exceeding the most current California Building Standards Code ASHRAE Standard 52.2 Minimum Efficiency Rating Value (MERV) requirement. Air filters shall be replaced at a minimum of two times per year, or more, as needed, by the owner. **Requirements and Timing:** This measure shall be printed on construction drawings and included as a requirement of the construction contract for new residential buildings. This measure shall also be recorded in a Notice to Property Owner, which shall be provided to all occupants of the Arroyo at Monrovia Station Specific Plan units. **Monitoring:** City Planning staff shall confirm that HVAC units and MERV-rated filters are installed in accordance with this measure prior to final sign off on construction for all new residential units. City Planning staff shall also review and approve of the Notice to Property Owner language and ensure recordation prior to final sign-off on construction of new residential units in the Project area.

IMPACT AIR-4 ODORS

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.). The proposed Project does not include such sources. In addition, industrial land uses are present east of the Project area, however these sources are unlikely to generate objectionable odors in the Project area given the typical meteorological patterns present (see Figure 7-1). Therefore, potential impacts associated with objectionable odors within the Project area would be less than significant.

Mitigation Measures

No mitigation measures are required.

7.2.3 Impact Conclusions

As described above, all potential air quality impacts resulting from the construction and operation of the Project would be less than significant, with the exception of short-term construction ROG emissions produced during architectural coating activities. The implementation of standard conditions SC AIR-1 through SC AIR-3 and mitigation measure MM AIR-1 would reduce architectural coating and equipment exhaust emissions to levels below SCAQMD-recommended thresholds of significance. Thus, these measures would reduce impacts to less than significant levels with mitigation.

The proximity of the Project area to I-210 would potentially exacerbate adverse health effects of DPM emissions on sensitive receptors near the I-210. However, implementation of HVAC systems with MERV-13 filters in all new residential units in the Project required in mitigation measure MM AIR-2 would reduce exposure to DPM emissions such that health risks would be under significance thresholds with and without the Project. Therefore, potentially significant impacts would be reduced to less than significant levels.

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
AB	Assembly Bill
AERMAP	terrain preprocessor for AERMOD
AERMET	AERMOD Meteorological Preprocessor
AERMOD	Atmospheric Dispersion Modeling System
AQ	air quality
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
CA	California
CAA	Clean Air Act
Cal-EPA	California Environmental Protection Agency
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CO	carbon monoxide
CPF	cancer potency factor
CRP	Coating Restriction Plan
DPM	diesel particulate matter
ED	exposure duration
EF	exposure frequency
EIR	Environmental Impact Report
EMFAC	Emission Factors Model
FAH	Fraction of Time at Home

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
GHG	greenhouse gas
GVWR	gross vehicle weight rating
H2S	hydrogen sulfide
HAP	Hazardous Air Pollutants
HARP	Hot Spots Analysis and Reporting Program
HESIS	Hazard Evaluation System and Information Service
HHDT	heavy-heavy duty trucks
HI	Hazard Index
HRA	Health Risk Assessment
I	Interstate
IARC	International Agency for Research on Cancer
KSF	thousand square feet
lbs	pounds
L	liter
LDA	passenger cars
LDT1	light-duty trucks, weight class 0 - 3,750 pounds
LDT2	light-duty trucks, weight class 3,751-5,750 pounds
LHDT1	light-heavy-duty trucks, weight class 8,501-10,000 pounds
LHDT2	light-heavy-duty trucks, weight class 10,001-14,000 pounds
LOS	Level of Service
LST	Localized Significance Threshold
m^3	cubic meter
MDV	medium-duty truck
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
mg	milligram
MH	motor home
MHDT	medium-heavy duty diesel truck
MPH	miles per hour
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NTP	United State National Toxicology Program
O_3	ozone
OBUS	motor coach bus
OEHHA	Office of Environmental Health Hazard Assessment
PM	particulate matter
PMI	Point of Maximum Impact
ppb	parts per billion
ppm	parts per million
$PM_{2.5}$	fine particulate matter
PM_{10}	coarse particulate matter
PRC	Public Resources Code
RAST	Risk Assessment Stand Alone Tool

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
REL	Reference Exposure Level
ROG	reactive organic gases
ROW	right-of-way
RTP	Regional Transportation Plan
SB	Senate Bill
SBUS	school bus
SC	Standard Condition
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_4^{2-}	sulfates
SO_x	oxides of sulfur
SRA	Source Receptor Area
TAC	Toxic Air Contaminants
TIS	Traffic Impact Study
UBUS	urban bus
U.S.	United States
U.S. EPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
V.	version
VMT	Vehicle Miles Traveled
VOC	volatile organic compounds
µg	micrograms
§	section
° F	degrees Fahrenheit

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8. BIOLOGICAL RESOURCES

This EIR Chapter describes the existing biological resources in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

8.1 SETTING

A field survey was conducted for the 2.90-acre Arroyo at Monrovia Station Specific Plan area by MIG on October 24, 2018. A query of the California Natural Diversity Data Base (CNDDB), maintained by the California Department of Fish and Wildlife (CDFW), was also performed, including nine U.S. Geological Survey (USGS) quadrangles around the Project area.

The Study area for the field survey and records search encompassed the entire 3.03-acre block bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west which includes the parcel Assessor Parcel Number [APN] 8507-002-013 at 230 W. Evergreen Avenue which is excluded from the Project (Figure 8-1). The results of the field survey and findings are also contained in a General Biological Resources Assessment Report provided in Appendix D of this EIR and incorporated herein (MIG 2019).

8.1.1 Environmental Setting

The following describes the physical characteristics, vegetation communities and associated wildlife habitats, wildlife movement corridors, sensitive natural communities, special-status species, jurisdictional wetlands, and other waters present or potentially present in the 2.90-acre Project area.

Physical Features

The Project area is flat with elevations ranging between 439 to 453 feet above mean sea level (AMSL). The Project area consists of a parking lot, two light industrial buildings, 8 residential buildings, and a vacant lot. Approximately 75 percent of the site is developed, with the remaining areas occupied by ornamental vegetation. Residential and commercial land uses border the Project area with Interstate-210 (I-210) located directly to the north.

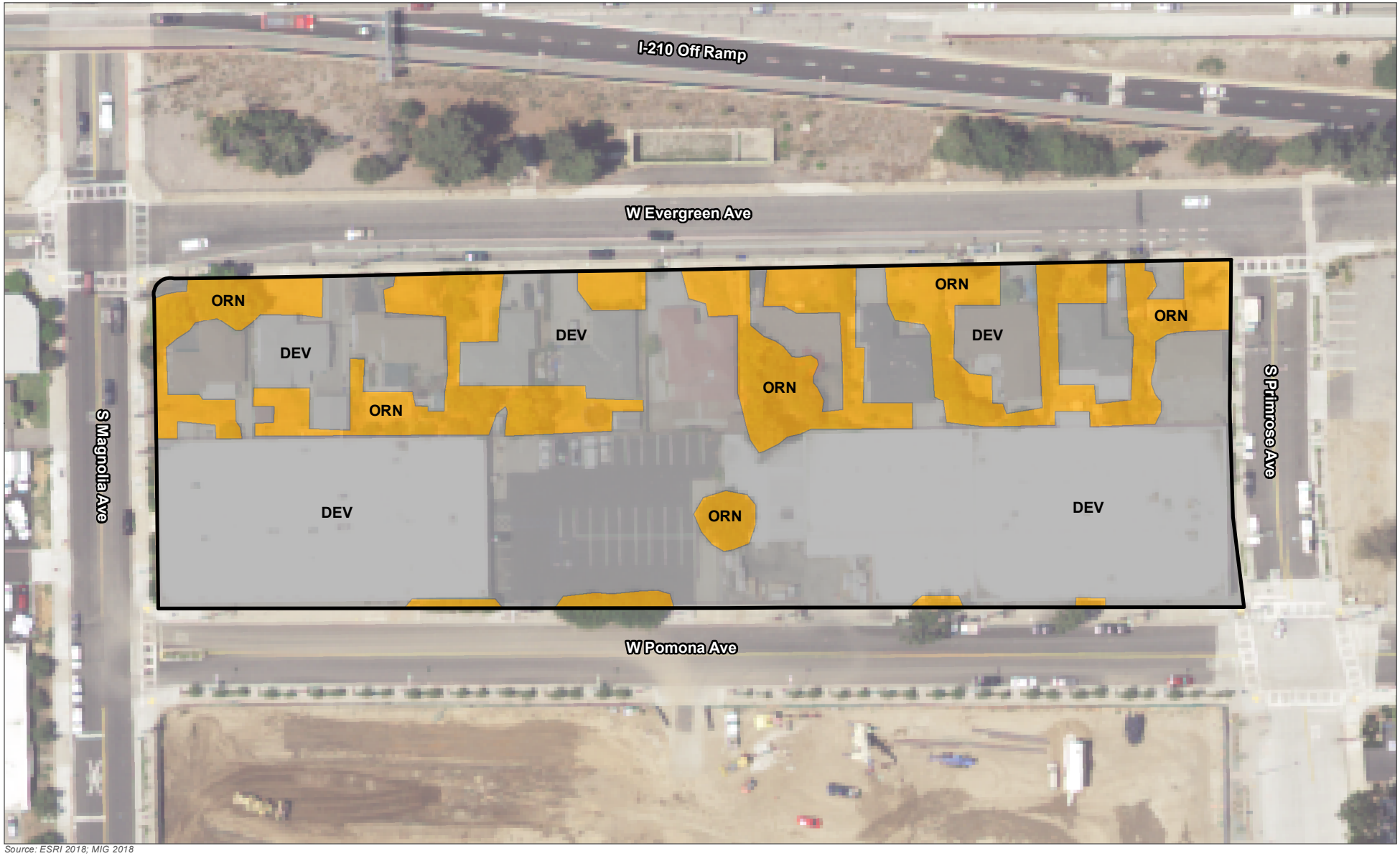
Vegetation Communities

The Study area is unvegetated due to development or vegetated by ornamental trees and grasses. Onsite vegetation communities observed during the October 24, 2018 field survey are described in more detail below.

Developed

The Study area is dominated by structures, paved parking lots, and sidewalks. These areas are generally unvegetated although weedy species such as wild oats (*Avena fatua*), tree of heaven (*Ailanthus altissima*), castor bean (*Ricinus communis*), Bermuda grass (*Cynodon dactylon*), broad leaf filaree (*Erodium botrys*), and common groundsel (*Senecio vulgaris*) are present.

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Source: ESRI 2018; MIG 2018

Study Area: 3.06 ac

Vegetation Community

Developed (DEV): 2.34 ac

Ornamental (ORN): 0.72 ac

0 50 100 200 Feet

Figure 8-1: Biological Resources Map

Arroyo at Monrovia Station Specific Plan Draft EIR

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Ornamental

Ornamental trees and shrubs are planted in association with the single family homes on the northern half of the Study area and include, but are not limited to, nonnative species such as carrotwood (*Cupaniopsis anacardioides*), weeping bottlebrush (*Callistemon viminalis*), Moreton Bay fig (*Ficus macrophylla*), multiflora rose (Rosa multiflora), lily of the Nile (*Agapanthus africanus*), Italian cypress (*Cupressus sempervirens*), Mexican fan palm (*Washingtonia robusta*), queen palm (*Syagrus romanzoffiana*), hibiscus (*Hibiscus* sp.), bougainvillea (Bougainvillea sp.), pine trees. (*Pinus* spp.), and citrus trees. Weedy species found throughout include lamb's quarters (*Chenopodium album*), horseweed (*Conyza canadensis*) and prickly lettuce (*Lactuca serriola*). No native oak trees protected by the City are present in the Study area.

Common Wildlife

Wildlife species that were observed onsite include European starling (*Sturnus vulgaris*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottus*), American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*) and yellow-rumped warbler (*Setophaga coronata*).

Other wildlife species that could inhabit the Project area are limited to urban species adapted to high levels of anthropogenic disturbance. Common urban-tolerant birds include: black phoebe (*Sayornis nigricans*), non-native European Starling (*Sturnus vulgaris*), non-native Eurasian collared dove (*Streptopelia decaocto*) and various other migrant songbirds, such as warblers, vireos, and grosbeaks. Common small mammals expected to occur in the urban setting include, but are not limited to, western gray squirrel (*Sciurus griseus*), raccoon (*Procyon lotor*), California mouse (*Peromyscus californicus*), Virginia opossum (*Didelphis virginiana*), and Botta's pocket gopher (*Thomomys bottae*).

Federal and State Protected Waters and Wetlands

No jurisdictional waters or wetland features were observed onsite that could be subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act (CWA), jurisdiction of the Regional Water Quality Control Board (RWQCB) pursuant to Section 401 of the CWA, and jurisdiction of the CDFW pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. A full jurisdictional delineation was not conducted as part of this effort because the Study Area is completely disturbed and developed with impervious surfaces, and no wetlands or jurisdictional features were observed onsite.

Sensitive Plant Communities

CDFW and the California Native Plant Society (CNPS) have identified several native plant communities that are rare and unique to California (see Section 8.1.2 below). While they have no legal protection, impacts to these plant communities may be considered "significant" under CEQA. However, no sensitive plant communities were observed in the Study area.

Special-Status Wildlife

Special-status wildlife species include those species listed as endangered or threatened under the Federal Endangered Species Act (FESA) or California Endangered Species Act CESA; candidates for listing by the U.S. Fish and Wildlife Service (USFWS) or CDFW; species of special concern to the CDFW; and birds protected by the USFWS under the Federal Migratory Bird Treaty Act (MTBA) and/or by the CDFW under Fish and Game Code Sections 3503, 3503.5, and 3512. Forty-five (45) special-status wildlife species have been recorded in the vicinity of the Study area.

Of these wildlife species, none are expected to occur in the Study area (i.e., all species are ranked as “Not Expected”). Reasons include the absence of essential habitat requirements for the species, the distance to known occurrences and/or the species distributional range, the limited availability of foraging and nesting habitat, the amount of site disturbance from past and present land uses, and/or the proximity of existing human-related disturbances. In addition, no USFWS-designated critical habitat areas for any federally listed wildlife species are present. A table presenting all special-status wildlife species considered and evaluated for their potential occurrence in the Study area, including species’ habitat requirements are provided in Appendix D.

Nesting Birds

Migratory birds are also protected under the Federal MBTA, which prohibits killing any migratory bird or disturbing or destroying an active nest of a migratory bird; this list contains hundreds of birds, including many of which are considered common or even nuisance or nonnative species. Nesting birds are also protected under California Fish and Game Code Sections 3503, 3503.5, and 3512, which prohibit the take of active bird nests. The existing trees in the Study area provide potentially suitable nesting habitat for songbirds. Although no active nests were observed during the field surveys, there is potential for ground- and tree-nesting birds to establish nests in the Study area, including in the Project area, prior to initiation of Project construction. These species are protected under the Federal MBTA and would be protected under the California Fish and Game Code when actively nesting.

Special-Status Plant Species

Special-status plants include: (1) plants that are Federal- or State-listed as rare, threatened or endangered, (2) Federal and State candidates for listing, (3) plants assigned a Rank of 1 through 4 by the CNPS Inventory, and (4) plants that qualify under the definition of "rare" in CEQA, Section 15380.

A total of 49 special-status plant species have been recorded in the proximity of the Study area. Based on the CNDDB, and the biological field survey and habitat suitability analysis conducted by MIG biologists on October 24, 2018, none of the 49 species are expected to occur in the Study area (i.e. species ranked as “Not Expected”) based upon lack of essential habitat requirements for the species, the distance to known occurrences and/or the species distributional range, the amount of site disturbance from past and present land uses, and/or the proximity of existing human-related disturbances. A table presenting all special-status plant species considered and evaluated for their potential occurrence in the Study area, including plant species’ habitat requirements and reported blooming periods, is provided in Appendix D.

Wildlife Corridors

Providing functional habitat connectivity between natural areas is essential to sustaining healthy wildlife populations and allowing for the continued dispersal of native plant and animal species. The regional movement and migration of wildlife species has been substantially altered due to habitat fragmentation over the past century. This fragmentation is most commonly caused by development of open areas, which can result in large patches of land becoming inaccessible and forming a virtual barrier between undeveloped areas. Additional roads associated with development, although narrow, may result in barriers to smaller or less mobile wildlife species. Habitat fragmentation results in isolated islands of habitat, which affects wildlife behavior, foraging activity, reproductive patterns, immigration and emigration or dispersal capabilities, and survivability. Wildlife corridors can consist of a sequence of stepping-stones across the landscape (i.e., discontinuous areas of habitat such as isolated wetlands), continuous lineal strips of vegetation and habitat (e.g., riparian strips and ridge lines), or they may be parts of larger habitat areas selected for its known or likely importance to local wildlife.

The Project area does not act as a wildlife movement corridor due to the current built environment at the site as well as the presence of dense urban development surrounding the site including residential neighborhoods, I- 210 freeway to the north, and other development nearby.

8.1.2 Regulatory Setting

The following discussion identifies Federal, State, and local environmental regulations that serve to protect sensitive biological resources.

Federal

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, provides the regulatory framework for the protection of plant and animal species (and their associated critical habitats), which are formally listed, proposed for listing, or candidates for listing as endangered or threatened under the FESA. The FESA has the following four major components:

- Provisions for listing species;
- Requirements for consultation with the USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service ("NOAA Fisheries Service");
- Prohibitions against "taking" (meaning harassing, harming, hunting, shooting, wounding, killing, trapping, capturing, or collecting, or attempting to engage in any such conduct) of listed species; and
- Provisions for permits that allow incidental "take."

The FESA also discusses recovery plans and the designation of critical habitat for listed species. Critical habitat is defined in Section 3(5)(A) of the ESA as:

> *"(i) the specific areas within the geographical area occupied by the species on which are found those physical or biological features: (I) essential to the conservation of the species, (II) which may require special management*

> *considerations or protection; and (ii) specific areas outside the geographical area occupied by the species upon a determination by the Secretary of Commerce or the Secretary of the Interior (Secretary) that such areas are essential for the conservation of the species."*

Both the USFWS and the NOAA Fisheries Service share the responsibility for administration of the FESA.

The Migratory Bird Treaty Act

The Federal Migratory Bird Treaty Act ("MBTA") (16 United States Code [U.S.C.] § 703 et seq.), Title 50 Code of Federal Regulations ("CFR") Part 10, prohibits taking, killing, possessing, transporting, and importing of native migratory birds, parts of migratory birds, and their eggs and nests, except when specifically authorized by the Department of the Interior. As used in the act, the term "take" is defined as meaning, "to pursue, hunt, capture, collect, kill or attempt to pursue, hunt, shoot, capture, collect or kill, unless the context otherwise requires." With a few exceptions, most native birds are considered migratory under the MBTA. Disturbance or impacts that causes nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend would be in violation of the MBTA.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act that was first passed in 1940 regulates take, possession, sale, purchase, barter, transport, import and export of any bald or golden eagle or their parts (e.g., nests, eggs, young) unless allowed by permit (16 U.S.C. § 668(a); 50 Code of Federal Regulations [CFR] 22). Take was broadly defined to include shoot, wound, kill, capture, collect, molest, or disturb. In the 1972 amendments, penalties for violations were raised to a maximum fine of $250,000 for an individual or a maximum of two years in prison for a felony conviction, with a doubling for organizations instead of individuals.

Clean Water Act Sections 404 and 401

The U.S. Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (U.S. EPA) regulate the discharge of dredged or fill material into waters of the United States, including wetlands, under Section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344). Waters of the United States are defined in Title 33 CFR Part 328.3(a) and include a range of wet environments such as lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. The lateral limits of jurisdiction in those waters may be divided into three categories – territorial seas, tidal waters, and non-tidal waters – and is determined depending on which type of waters is present (Title 33 CFR Part 328.4[a], [b], [c]). Activities in waters of the United States regulated under Section 404 include fill for development, water resource projects (e.g., dams and levees), infrastructure developments (e.g., highways, rail lines, and airports) and mining projects. Section 404 of the CWA requires a Federal permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g., certain farming and forestry activities).

Section 401 of the CWA (33 U.S.C. § 1341) requires an applicant for a Federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a water quality certification from the State in which the discharge originates. The

discharge is required to comply with the applicable water quality standards. A certification obtained for the construction of any facility must also pertain to the subsequent operation of the facility. The responsibility for the protection of water quality in California rests with the State Water Resources Control Board (State Water Board) and its nine Regional Water Quality Control Boards (RWQCBs).

State

California Endangered Species Act

The State of California enacted similar laws to the FESA, the California Native Plant Protection Act ("NPPA") in 1977 and the California Endangered Species Act ("CESA") in 1984. The CESA expanded upon the original NPPA and enhanced legal protection for plants, but the NPPA remains part of the California Fish and Game Code. To align with the FESA, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals in the CESA as threatened species but did not do so for rare plants. Thus, these laws provide the legal framework for protection of California-listed rare, threatened, and endangered plant and animal species. The CDFW implements NPPA and CESA, and its Wildlife and Habitat Data Analysis Branch maintains the CNDDB, a computerized inventory of information on the general location and status of California's rarest plants, animals, and natural communities. During the CEQA review process, the CDFW is given the opportunity to comment on the potential of the Project to affect listed plants and animals.

Fully Protected Species and Species of Special Concern

The classification of "fully protected" was the CDFW's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibian and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under CESA and/or FESA. The Fish and Game Code sections (fish at §5515, amphibian and reptiles at §5050, birds at §3511, and mammals at §4700) dealing with "fully protected" species states that these species "…may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species," (California Fish and Game Commission 1998) although "take" may be authorized for necessary scientific research. This language makes the "fully protected" designation the strongest and most restrictive regarding the "take" of these species. In 2003, the code sections dealing with fully protected species were amended to allow the CDFW to authorize a "take" resulting from recovery activities for State-listed species.

Species of special concern are broadly defined as animals not listed under the FESA or CESA, but which are nonetheless of concern to the CDFW because they are declining at a rate that could result in listing or historically occurred low numbers and known threats to their persistence currently exist. This designation is intended to result in special consideration for these animals by the CDFW, land managers, consulting biologist(s), and others, and is intended to focus attention on the species to help avert the need for costly listing under FESA and CESA and cumbersome recovery efforts that might ultimately be required. The designation also is intended to stimulate collection of additional information on the biology, distribution, and status of poorly known at-risk species, and focus research and management attention on them. Although these species generally have no special legal status, they are given special consideration under CEQA during the project review.

California Fish and Game Code Sections 3503 and 3513

According to Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird (except English Sparrow [*Passer domesticus*] and European Starling [*Sturnus vulgaris*]). Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the MBTA, prohibiting the take or possession of any migratory non-game bird. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "take" by the CDFW.

Porter-Cologne Water Quality Control Act

Waters of the State are defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the State." The State Water Board protects all waters in its regulatory scope but has special responsibility for isolated wetlands and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated by other programs, such as Section 404 of the CWA. Waters of the State are regulated by the Water Boards under the State Water Quality Certification Program, which regulates discharges of dredged and fill material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other Federal jurisdiction, and have the potential to impact Waters of the State are required to comply with the terms of the Water Quality Certification Program. If a Project does not require a Federal license or permit but does involve activities that may result in a discharge of harmful substances to Waters of the State, the Water Boards have the option to regulate such activities under its State authority in the form of Waste Discharge Requirements or Certification of Waste Discharge Requirements.

California Fish and Game Code Section 1600-1616

Streams, lakes, and riparian vegetation, as habitat for fish and other wildlife species, are subject to jurisdiction by the CDFW under Sections 1600-1616 of the California Fish and Game Code. Any activity that will do one or more of the following:

- Substantially obstruct or divert the natural flow of a river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake generally requires a 1602 Lake and Streambed Alteration Agreement.

The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows:

> *"a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72).*

In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Riparian is defined as "on, or pertaining to, the banks of a stream"; therefore, riparian

vegetation is defined as, “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFW.

CDFW Sensitive Natural Communities

Sensitive natural communities are habitats that are either unique in constituent components, of relatively limited distribution in the region, or of particularly high wildlife value. These communities may or may not necessarily contain special-status species. Sensitive natural communities are usually identified in local or regional plans, policies or regulations, or by the CDFW or the USFWS. The CNDDB identifies a number of natural communities as rare, which are given the highest inventory priority. Impacts to sensitive natural communities and habitats must be considered and evaluated under the CEQA.

Native Plant Protection Act

The NPPA of 1977 (California Fish and Game Code, §§ 1900 through 1913) directed the CDFW to carry out the Legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by the CDFW, which has the authority to designate native plants as endangered or rare and to protect them from “take.”

Other Sensitive Species

California Native Plant Society.

Plant species which may not be listed as endangered, threatened, candidate, or proposed species under FESA or CESA, but are still considered rare, are generally assigned a rarity code by the California Native Plant Society (CNPS). The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. 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. Under CEQA, impacts analyses are mandatory for List 1 and 2 species, but not for all List 3 and 4 species as some do not meet the definitions of the Federal NPPA or CESA; however, List 3 and 4 impacts to these species are generally considered in most CEQA analyses and are recommended by CNPS. The CNPS assigns plants to the following categories:

- Rank 1A: Presumed extinct in California;
- Rank 1B: Rare, threatened, or endangered in California and elsewhere;
- Rank 2: Rare, threatened, or endangered in California, but more common elsewhere;
- Rank 3: Plants for which more information is needed – A review list; and
- Rank 4: Plants of limited distribution – A watch list.

Additional endangerment codes are assigned to each taxon as follows:

- 1: Seriously endangered in California (over 80% of occurrences threatened/high degree of immediacy of threat).

- 2: Fairly endangered in California (20-80% occurrences threatened).

- 3: Not very endangered in California (<20% of occurrences threatened or no current threats known).

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and the CDFW, as well as other state agencies (e.g., California Department of Forestry and Fire Protection). As part of the CEQA process, such species should be fully considered, as they meet the definition of threatened or endangered under the NPPA and Sections 2062 and 2067 of the California Fish and Game Code. California Rare Plant Rank 3 and 4 species are considered to be plants about which more information is needed or are uncommon enough that their status should be regularly monitored. Such plants may be eligible or may become eligible for state listing, and CNPS and CDFW recommend that these species be evaluated for consideration during the preparation of CEQA documents (CNPS 2018).

CDFW California Natural Diversity Data Base

CDFW maintains the CNDDB, which is a program that inventories the status and locations of rare plants and animals in California. Each rare species or plant community is assigned an “element ranking” in the CNDDB, which quantifies and qualifies the rarity of each species/community within its global and State range. The CNDDB gives five categories of rarity for each species’ global and State range; these are summarized in the General Biological Assessment Report in Appendix D. All Federal and State listed species are assigned a ranking; however, even nonlisted species (such as Species of Concern, Special Animals, or plants on the CNPS list) are assigned an element ranking by CDFW for the CNDDB. Impacts to species which are assigned an element ranking in the CNDDB are considered under CEQA.

Local

City of Monrovia General Plan

According to the City of Monrovia General Plan, “little vacant land suitable for development is available. Therefore, future development, like current development patterns, will involve either the intensification of already existing uses or recycling to similar uses.” The over 4.5-mile trail system and surrounding Hillside Wilderness Preserve, discussed at length in the Hillside Wilderness Preserve Resource Management Plan (adopted in 2012), will remain protected and intact. Other areas within City boundaries have been designated or envisioned for future development/improvement, are generally urbanized, and have very little value for biological resources.

City of Monrovia Oak Tree Preservation Ordinance

The City of Monrovia Oak Tree Preservation Ordinance (87-11) adopted in 1987 to preserve Monrovia's native oak trees, contains regulations in §17.20.40 of the Monrovia Municipal Code. Oak trees protected include any trees of the genus *Quercus* within the City limits with trunks 10 inches in diameter or more, measured at two feet above the ground. Oaks are protected within: single-family, multiple-family, commercial, or industrial zones, in addition to vacant lots and/or oak trees indicated in an oak tree preservation plan. Oaks must also be protected from grading, oil/gas/other construction chemicals, or signage or other obstructions during construction via an oak protection plan approved by the City's Development Review Committee, which includes guidelines for placing fencing around protected oaks. Activities that will cut an oak to the ground, extract an oak, kill/remove an oak by other means, prune and oak so that more than one-third of the crown/existing foliage/root system is removed, or will disturb underground beneath the dripline of an oak require permitting through the City of Monrovia.

8.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts to sensitive biological resources that could result from the Project. The Section also recommends mitigation measures as needed to reduce significant impacts.

8.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items IV (a) through (f), implementation of the Project would have a significant impact on biological resources if it would:

(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 regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;

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

(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;

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

(e) Conflict with any local policies or Ordinances protecting biological resources, such as a tree preservation policy or Ordinance; or

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

8.2.2 Environmental Impacts

IMPACT BIO-1 NESTING BIRDS

Implementation of the Project would alter an already-developed area that does not support a wide diversity of biological resources. The majority of the Project area currently encompasses residential or industrial land uses. No sensitive habitats that could support special-status plant and wildlife species were identified during the field survey (see Figure 8-1).

Native and ornamental vegetation in the Project area have the potential to provide nesting habitat for bird species protected by the Migratory Bird Treaty Act of 1918 and the California Fish and Game Code Sections 3503, 3503.5, and 3513. Although no active nests were observed during the October 24, 2018 field surveys (i.e. outside of the nesting season), there is potential for ground-, shrub-, and tree-nesting birds to establish nests within the Project area prior to Project construction. Intentional destruction of or disturbance to an active nest is prohibited under State and Federal law. Construction activities including site mobilization, tree removal, other vegetation clearing, grubbing, grading, and noise and vibration from the operation of heavy equipment have the potential to result in significant direct (i.e., death or physical harm) and/or indirect (i.e., nest abandonment) impacts to nesting birds. Impacts would be significant without mitigation. Implementation of mitigation measure MM BIO-1 would be required to reduce impacts on nesting birds to a less than significant level.

Mitigation Measures

MM BIO-1: Nesting Bird Protection. If vegetation removal is scheduled during the nesting season (typically February 1 to September 1), then a focused survey for active nests shall be conducted by a qualified biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) no more than five (5) days prior to the beginning of excavation, grading and/or vegetation removal. Surveys shall be conducted in proposed work areas, staging and storage areas, along equipment transportation routes, and soil, equipment, and material stockpile areas. For passerines and small raptors, surveys shall be conducted within a 250-foot radius surrounding the work area (in non-developed areas and where access is feasible). For larger raptors, such as those from the genus Buteo, the survey area shall encompass a 500-foot radius. Surveys shall be conducted during weather conditions suited to maximize the observation of possible nests and shall concentrate on areas of suitable habitat. If a lapse in Project-related work of five (5) days or longer occurs, an additional nest survey shall be required before work can be reinitiated.

If active nests are found during any preconstruction survey, a qualified biologist shall establish an appropriate buffer between the nest and active construction. The qualified biologist shall clearly mark the established buffer. The Project proponent shall maintain the buffer until young have fledged and are foraging independently. The qualified biologist shall document pre-construction baseline monitoring of the nest to characterize “normal” bird behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and shall increase the buffer if birds are showing signs of unusual or distressed behavior (e.g., defensive flights and vocalizations, standing up from a brooding position, and flying away from the nest). If this is not possible, work shall cease in the area until young have fledged and the nest is no longer active (e.g. young have fledged, predation, or other non-anthropogenic nest failure). **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

IMPACT BIO-2 POTENTIAL ADVERSE EFFECTS ON JURISDICTIONAL WATERS

No sensitive natural vegetation communities documented by CDFW or USFWS are present within the Project area. There are no riparian features located on site, and all vegetation occurring onsite are non-native ornamentals. No impact to riparian habitat or other sensitive natural communities would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT BIO-3 IMPACT ON SENSITIVE NATURAL VEGETATION COMMUNITIES

Although a federal/state jurisdictional delineation was not completed as part of this Biological Resources Assessment, the Project area does not contain federally protected wetlands as defined by Section 404 of the CWA. No impacts to federally protected wetlands would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT BIO-4 IMPACT ON WILDLIFE CORRIDORS

The Project area represents a developed and urbanized area and is not located within an established wildlife movement corridor, movement pathway, or linkage between larger habitat areas for terrestrial or aquatic wildlife. Due to the disturbed, limited, and fragmented condition of habitats on site, which would preclude most species from using the site for breeding/nesting, the Project area also does not function as a wildlife nursery site that would contribute disproportionately to a population. Thus, wildlife species, migratory corridors and native wildlife nursery sites would not be impacted due to project implementation, and no further mitigation is required.

Mitigation Measures

No mitigation measures are required.

IMPACT BIO-5 Impact on Other Special-Status Species

No other special status plant or wildlife species are expected to occur within the Project area due to a lack of suitable habitat (see Appendix D) and due to the high degree of site disturbance from existing development within and surrounding the Project area. Therefore, impacts on other special-status plant and wildlife species would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT BIO-6 CONFLICT WITH LOCAL POLICIES OR ORDINANCES OR CONSERVATION PLANS

The Project area is located in the City of Monrovia, Los Angeles County, California and is not located within an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan. Furthermore, the Project area does not contain any oak trees and would not conflict with any local policies or ordinances protecting biological resources. Therefore, no impact would occur.

Mitigation Measures

No mitigation measures are required.

8.2.3 Impact Conclusions

The Project area is almost entirely developed and provides very little biological resource value. Therefore, there would be no impact on sensitive vegetation communities or sensitive species. However, the limited amount of native and non-native vegetation may provide habitat for nesting bird species. With implementation of mitigation measure MM BIO-1, however, impacts would be reduced to less than significant levels.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
AMSL	above mean sea level
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CWA	Clean Water Act
EPA	United States Environmental Protection Agency
FESA	Federal Endangered Species Act
I-210	Interstate-210
MBTA	Federal Migratory Bird Treaty Act
MM	Mitigation Measure
NOAA	National Oceanic and Atmospheric Administration
NPPA	California Native Plant Protection Act
RWQCB	Regional Water Quality Control Board
U.S.C.	United States Code
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
§	section

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9. CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

This EIR Chapter describes the cultural resources (archaeological resources and historical structures) and Tribal Cultural Resources (TCRs) in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts, describes potential impacts that could result from the Project, and includes mitigation measures, if any, that would avoid or reduce the potential impacts.

9.1 SETTING

This analysis is based on the Cultural Resources Assessment Report prepared for the Project under separate cover and incorporated herein by reference (MIG 2019).

9.1.1 Environmental Setting

Project Area Setting

A pedestrian survey and records search were completed for the Project at the California Historical Resources Information System-South Central Coastal Information Center (CHRIS-SCCIC). The Study Area for the field survey and records search, as well as a historic evaluation of structures greater than 45 years old, encompassed the entire 3.03-acre block bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west inclusive of Assessor Parcel Number [APN] 8507-002-013 at 230 W. Evergreen Avenue, which is not a part of the Project.

The Project area consists of 2.90 acres located within an urbanized area of the City of Monrovia (City or Monrovia). It is bound by West Evergreen Avenue to the south West Pomona Avenue to the south, South Primrose Avenue to the east and South Magnolia Avenue to the west and is approximately 200 feet south of Interstate Highway 210 (I-210).

Approximately 75 percent of the Project area is developed and covered with impervious surface, with the rest of the Project area covered in landscaping. No surface indicators of archaeological resources were observed during the pedestrian survey of the Project area.

The Project area comprises the entire block, except for one 0.14-acre single-family residential parcel (APN 8507-002-013), noted above. Within the Project area are eight residential homes (238 thru 206 West Evergreen Avenue), two industrial buildings (1551 South Primrose Avenue and 1610 South Magnolia Avenue), a vacant lot, and an asphalt parking lot that are located within the Project boundaries (APN: 8507-002-011, -012, -014, -015, -017, -018, -019, -020, -022, -023, -036, and -037). The residence at 230 W. Evergreen Avenue was also evaluated although it is not a part of the Project.

Land uses surrounding the Project area include commercial, and industrial properties to the south, east and west, and residential properties to the south; all located in the City of Monrovia, Los Angeles County, California (see Figure 1-1, Project Location Map).

The elevation within the Project area is approximately 440 feet above mean sea level (AMSL). The topography is characterized as flat with a gentle slope towards the southeast. Historical aerial photographs (1948 through 2012) show the Project area to be highly disturbed, with ongoing and continuous industrial, commercial, and residential activities occurring from at least 1948 to the present. All structures were constructed between 1950 and 1957.

Cultural Setting

Below are excerpts from the City of Monrovia's Historic Context Statement (ASM Affiliates 2018) providing a brief description of the cultural setting of Monrovia:

"The native people of the area now known as Monrovia were the Tongva, or Gabrieleno Indians. Before Spanish colonization of Central America and Alta California, the San Gabriel Valley was occupied by indigenous people of Native American Shoshonean Tribes as early as 500 B.C., although archaeological investigations have documented human habitation of southern California as early as 12,000 years B.C.E. (before the common era). Later, this tribe became known as the Gabrielinos, after the Mission San Gabriel Arcángel. The indigenous tribes living at the foot of the San Gabriel Mountains were said to be the "wealthiest, most populous and most powerful ethnic nationality in aboriginal southern California" (Bean and Smith 1978, 538). The tribes were sustained by the rich land they occupied in and near the arroyos in the steep mountains to the north, which seasonally carried water down into the valley, joining the San Gabriel River and eventually reaching the Pacific Ocean. Recorded history of California began in the sixteenth century with Spanish colonization of Central America and Alta California. In 1771, Spanish missionaries arrived in the area and established Mission San Gabriel Arcángel. After Mexico won independence from Spain in 1821, California territory fell under the jurisdiction of the Mexican government. This led to the secularization of the missions by the 1830s, which resulted in the transference of mission land to Mexican ranchos. The 9,000-acre Rancho Santa Anita, within which present-day Monrovia is located, was granted to Hugo Reid in 1841 (Jimenez 2008; Ostrye 1986). The same year, Mexican Governor Juan Alvarado granted the eastern half of the rancho to Andreas Duarte, which created Rancho Azusa de Duarte….

In the 1850s, the strong demand for beef in the rapidly growing mining areas and cities in northern California had led the owners of some large ranchos in agricultural southern California to overextend their cattle operations. A period of flood and extended drought in the early 1860s destroyed the livestock and left them unable to pay their taxes. Many of the large ranchos were divided and sold, and both Rancho Santa Anita and Rancho Azusa de Duarte were sold to a series of owners….;" and

"The City's initial residential development was largely within the smaller town lots of the original 120-acre townsite laid out by Monroe and his partners, as well as in the larger lots of subdivisions north of White Oak Avenue (now Foothill Boulevard) including the Monrovia Addition, Banana Addition, and the two Keefer Subdivisions (Baker 2017; Jimenez 2017, 7). A total of 168 homes were reported to have been constructed by the end of 1888, which ranged from the grand Queen Anne residences of Monroe, Jerome I. Case, and General William A. Pile in the northern section, to modest one to one-and-one-half story vernacular, Folk Victorian, Neoclassical, and early Craftsman homes near the town center…"

The history of Monrovia is also marked by construction of a railroad from Monrovia to Los Angeles as well as the interurban Pacific Electric Railway Line to Los Angeles and other urban centers.

9.1.2 Regulatory Setting

The following is a summary of the applicable Federal, State, and local regulatory framework related to the protection of cultural resources.

Federal

Federal Antiquities Act

Cultural resources are indirectly protected under the provisions of the Federal Antiquities Act of 1906 (16 United States Code [U.S.C] §§ 431 et seq.) and subsequent related legislation, regulations, policies, and guidance documents.

Section 106 of the National Historic Preservation Act of 1966

The National Historic Preservation Act (NHPA) establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring Federal agencies to consider effects to significant cultural resources (i.e. historic properties) prior to undertakings. Section 106 of the NHPA states that Federal agencies with direct or indirect jurisdiction over Federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) and that the Advisory Council on Historic Preservation (ACHP) and State Historic Preservation Officer (SHPO) must be afforded an opportunity to comment on such undertakings, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by Federal, State, and Local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, State, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria as defined by NRHP:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from Federal and Tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any Federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

State

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA), a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR). In addition, resources included in a local register of historic resources or identified as "significant" in a local survey conducted in accordance with State guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historic resource as defined in California Public Resources Code (PRC) Section 5024.1.

CEQA applies to archaeological resources when: (1) the archaeological resource satisfies the definition of a historical resource, or (2) the archaeological resource satisfies the definition of a "unique archaeological resource." A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

1. The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.

2. The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. The archaeological resource is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is:

> *"an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the state's historical resources and to indicate*

> *properties that are to be protected, to the extent prudent and feasible, from substantial adverse change."*

Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks (CHLs) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historic resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria: (modeled after NRHP criteria):

- Criterion 1: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Criterion 2: It is associated with the lives of persons important in our past.
- Criterion 3: It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- Criterion 4: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historic resources and to convey the reasons for their significance. It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. Resources that have achieved significance within the past 50 years also may be eligible for inclusion in the CRHR, provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.

California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have Statewide historical significance by meeting at least one of the criteria listed below. The resource must also be approved for designation by the County Board of Supervisors or the City or Town Council in whose jurisdiction it is located, be recommended by the State Historical Resources Commission, or be officially designated by the Director of California State Parks. The specific standards in use now were first applied in the "designation" of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a Landmark, a resource must meet at least one of the following criteria per California Historical Landmarks Registration: Criteria for Designation (California Office of Historic Preservation 2019):

- The first, last, only, or most significant of its type in the State or within a large geographic region (Northern, Central, or Southern California);

- Associated with an individual or group having a profound influence on the history of California; or

- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (City or County) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest (Points) designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historic resource may be designated as both a Landmark and a Point. If a Point is later granted status as a Landmark, the Point designation will be retired. In practice, the Point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a Point, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (City or County);

- Associated with an individual or group having a profound influence on the history of the local area; or

- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Native American Heritage Commission, Public Resources Code Sections 5097.9–5097.991

Section 5097.91 of the Public Resources Code (PRC) established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a County coroner. Section 5097.5 defines the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands as a misdemeanor.

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code Sections 8010–8030, the California Native American Graves Protection Act (NAGPRA) is consistent with the Federal NAGPRA. Intended to "provide a seamless and consistent State policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect," the California NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. The Act also provides a process for non-Federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

Senate Bill 18

Senate Bill (SB) 18 (California Government Code, Section 65352.3) incorporates the protection of California traditional tribal cultural places into land use planning for Cities, Counties, and agencies by establishing responsibilities for local governments to contact, refer plans to, and consult with California Native American tribes as part of the adoption or amendment of any General Plan or Specific Plan proposed on or after March 1, 2005. SB18 requires public notice to be sent to tribes listed on the Native American Heritage Commission's SB18 Tribal Consultation List within the geographical areas affected by the proposed changes. Tribes must respond to a local government notice within 90 days (unless a shorter time frame has been agreed upon by the tribe), indicating whether or not they want to consult with the local government. Consultations are for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code that may be affected by the proposed adoption or amendment to a General or Specific Plan.

Assembly Bill 52

Assembly Bill (AB) 52 specifies that a project that may cause a substantial adverse change in the significance of a TCR, as defined, is a project that may have a significant effect on the environment. AB 52 requires a lead agency to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe: (1) requests in writing consultation to the lead agency, (2) to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is required for a project pursuant to CEQA. AB 52 specifies examples of mitigation measures that may be considered to avoid or minimize impacts on TCRs.

California Health and Safety Code, Sections 7050 and 7052

Health and Safety Code Section 7050.5 declares that, in the event of the discovery of human remains outside a dedicated cemetery, all ground disturbances must cease, and the County Coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code, Section 622.5

Penal Code Section 622.5 provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands but specifically excludes the landowner.

Regional

County of Los Angeles Historic Preservation Ordinance

Los Angeles County's Historic Preservation Ordinance (Ordinance 22: 22.44.3000-.3040) adopted regulations to preserve, protect, and enhance buildings, structures, and other resources and areas of historic interest and importance within the unincorporated territory of the County of Los Angeles, as authorized by Section 25373 of the California Government Code, for the educational, cultural, economic, and general welfare of the public.

Local

City of Monrovia General Plan

Goal 9 of the Land Use Element of the City of Monrovia's General Plan is to preserve the character of existing neighborhoods and historic residences, with implementation of the following policies:

Policy 9.1: Continue to implement the historic preservation ordinance for designating, preserving, safeguarding historic structures, and creating historic districts in the City.

Policy 9.6: Encourage the continued effort in the downtown to preserve its historic quality. New development shall be designed in harmony with existing buildings.

Monrovia Zoning Code Section 17.10

Monrovia Zoning Code Section 17.10 establishes the City's Discretionary Demolition Ordinance. The purpose of this Section is to encourage the preservation of potentially historic residential buildings and protect against the loss of potential historic landmarks. The City's demolition review standards apply to main residential buildings in any zone that are fifty (50) years old or older proposing total demolition or significant alteration or removal of exterior building wall area and/or roof area. The demolition application requires the submittal of either documentation from a historic survey that indicates a California Historical Resource Status (CHRS) code for the subject building and other site data, a historic assessment and determination of CHRS code for the property by a qualified historic preservation consultant, or a written request for an exemption due to perceived lack of historic significance. The evaluation and determination made by the Historic Preservation Commission is in the form of approval of Department of Parks and Recreation (DPR 523A) survey form which includes the assignment of a CHRS code.

Monrovia Zoning Code Section 17.40

Monrovia Zoning Code Section 17.40 establishes the City's Historic Preservation Ordinance. The intent of the Historic Preservation Ordinance is to protect the City's cultural heritage as embodied and reflected in the City's architectural history and patterns of development. The Historic Preservation Ordinance gives the Historic Preservation Commission the authority to review and designate local historical landmarks and historic districts. All potentially eligible historic resources are reviewed by the Historic Preservation Commission as part of the City's development review process. No demolition or alteration to a historic landmark or historic district may occur without obtaining a Certificate of Appropriateness from the Historic Preservation Commission.

9.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to cultural resources and TCRs that could result from implementation of the Project. The Section also recommends mitigation measures as needed to reduce significant impacts.

9.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items V (a) through (c) and XVII (a) and (b), implementation of the Project would have a significant impact related to cultural resources and TCRs if it would:

(a) Cause a substantial adverse change in the significance of a historic resource pursuant to CEQA Guidelines section 15064.5;

(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

(c) Disturb any human remains, including those interred outsides of formal cemeteries.

The Project would have a significant impact on TCRs if it would cause a substantial adverse change in the significance of a TCR, 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:

- 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

- 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.

9.2.2 Analysis Methodology

The methodology for evaluating potential environmental impacts on cultural resources and TCRs followed this basic sequence:

(1) The CEQA Statute and Guidelines, including Appendix G (Environmental Checklist Form), were consulted to identify environmental impact topics and issues that should be addressed in the EIR.

(2) A records search was completed of the Study area at the CHRIS-SCCIC. The records search included a review of all recorded archaeological and historical resources within a one mile radius of the Study area, as well as a review of cultural resource reports and historic topographic maps on file. In addition, MIG reviewed the California Points of Historical Interest (CPHI), the California

Historical Landmarks (CHL), the California Register, the National Register, and the California State Historic Resources Inventory (HRI) listings. The purpose of the records search was to determine whether previously recorded archaeological or historical resources exist within the Study area that require evaluation and treatment. A Sacred Lands File (SLF) records search was also completed through the NAHC.

(3) A pedestrian survey was completed on November 6, 2018 to evaluate the Study area (the Study Area for the field survey and records search encompassed the entire 3.03-acre block bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west which includes the parcel Assessor Parcel Number [APN] 8507-002-013 which is excluded from the Project).

(4) Field data and results of data record searches were evaluated to determine if there any potential impacts to cultural and TCRs.

(5) As part of its AB 52 and SB 18 consultation efforts, the City sent letters to representatives of local Native American tribes in the area inviting them to consult on the Project.

(6) For potential environmental impacts that would result from the Project, mitigation measures are provided to avoid or reduce each impact to a less than significant level.

9.2.3 Environmental Impacts

Results of the assessment are summarized below by key subject area as they relate to the impact questions: (1) historic structures; (2) archaeological resources; and (3) TCRs.

IMPACT CUL-1 HISTORIC STRUCTURES

Previously Recorded Historical Resources Near Study Area

Results from the CHRIS-SCCIC search identified no previously recorded historical resources within the Study area boundaries. Ten historic buildings and two historic structures (P-19-179357, P-19-179365, P-19-187710, P-19-188784, P-19-188785, P-19-188788, P-19-188789, P-19-189105, P-19-189107, P-19-190410, P-19-190688, and P-19-192321) are located within a one-mile radius of the Study area (see Table 9-1). None of these historic structures would be affected by the Project.

Table 9-1 Previously Recorded Cultural Resources within One Half Mile of the Study Area

Resource No.	Resource Type	Description	NRHP Eligibility	CRHR Eligibility	Distance from the Study Area
P-19-179357	Historic Building	The historic building is the Santa Fe Railroad Depot. The depot is composed of a two-story central section flanked by two cross gabled sections of one story each. The Spanish Colonial-styled exterior is of stucco with a red tile roof. The depot was built in 1925 and is currently vacant.	Eligible (3S) as an individual property through survey evaluation	Eligible (5S2) for local listing or designation	1/16 of a mile to the southeast

Resource No.	Resource Type	Description	NRHP Eligibility	CRHR Eligibility	Distance from the Study Area
P-19-179365	Historic Building	The historic building is a two-story Queen Anne residence that was owned by Mr. Stewart Wilson and was built in 1887. The outstanding architectural features are the four prominent bays that protrude from the upper story; each is topped by a shingled gable with wide barge boards decorated with cut-out designs.	Not Eligible	Not Eligible: *Potential City Historic Landmark	3/4 of a mile to the northwest
P-19-187710	Historic Building	The historic building is a one-story industrial building constructed of concrete block and bricks that possesses Streamline Modern Style characteristics. The building was constructed by W.H. McCune between 1944-1946.	Not Eligible	Not Eligible	5/8 of a mile to the north
P-19-188784	Historic Building	This historic building is a flat-roofed, one-story commercial structure, is designed in the Modern style, and is currently in use as a large-scale retail store known as The Outlet by ELS. The L-shaped mass rests on an elevated concrete slab foundation. The building was designed by architect George E. Russell for factory owner A.T. Case and built by contractor E.A. Raulston in 1945. The building has been demolished in the recent past.	Not Eligible	Not Eligible	1/2 of a mile to the east
P-19-188785	Historic Building	This historic building is a single-story, Modern style commercial building, constructed between 1950 and 1960, and has been altered over the years. During the 1950s-1970s, this property was held by an absentee owner, A.W. or George W. Brokate of Arcadia. The building has been demolished in the recent past.	Not Eligible	Not Eligible	½ of a mile to the east
P-19-188788	Historic Building	The historic building is a one-story industrial building that exhibits an L-shaped ground plan and faces west. The front portion of the building contains office spaces and is flat-roofed; the rear portion is surmounted by a low-pitched vaulted roof,	Not Eligible	Not Eligible	3/4 of a mile to the east

Resource No.	Resource Type	Description	NRHP Eligibility	CRHR Eligibility	Distance from the Study Area
		which is surrounded by low parapets and dotted with protruding skylights. The building was constructed in 1946 and was enlarged between 1952 and 1953.			
P-19-188789	Historic Building	This historic building, a one-story industrial building, is an elongated but generally rectangular, brick structure resting on a concrete slab foundation. It is surmounted by a very low-pitched vaulted roof, which is covered with gray composition shingles and fronted by a brick parapet. The building was built in 1948 by the architectural firm John M. Cooper.	Not Eligible	Not Eligible	3/4 of a mile to the southeast
P-19-189105	Historic Structure	This historic structure is a single-track railroad bridge over the Santa Anita Wash, with a total span measurement just over 180 feet in length. The bridge was constructed in 1915. The bridge is in poor condition according to recent maintenance records. The ballast is low throughout; the membrane is bad; bolts are missing; the bridge dips at the center pier; and there is some fire damage on the east end.	Not Eligible	Not Eligible	3/4 of a mile to the northwest
P-19-189107	Historic Structure	The historic structure, “Alta Vista Wash Deck Beam Bridge,” was used by the former Atchison, Topeka and Santa Fe railroad. The bridge was constructed in 1907 according to recent engineering reports; the bridge is not considered to be structurally sound for heavy loads.	Not Eligible	Not Eligible	3/4 of a mile to the northwest
P-19-190410	Historic Building	This historic building is a one-story vernacular residence that has a roughly rectangular plan. The house is surmounted by a low-pitched gable-on hip roof sheathed in composition shingles and has moderate eaves. The exterior walls are clad in modern stucco. The built	Not Eligible	Not Eligible	0.81 miles to the southwest

Resource No.	Resource Type	Description	NRHP Eligibility	CRHR Eligibility	Distance from the Study Area
		date was not included in the site record.			
P-19-190688	Historic Building	This historic building is a ranch style, single-family residence dating from1961. It is a single-story structure with a gable roof (and a false dormer) and currently exhibits a faux shake roof. The residence consists of three bedrooms and two baths and has an attached garage.	Not Eligible	Not Eligible	1 mile to the southwest
P-19-192321	Historic Building	This historic building is a multi-family residence that was original constructed in 1912. The residence was likely built as a two bedroom and one bath residence with the third bedroom and second bath added circa 1928.	Not Eligible	Not Eligible	1 mile to the southwest

Potential Historic Structures Within Study Area Boundaries

Archival research indicates that the nine residential homes (238 thru 206 West Evergreen Avenue) and the two industrial buildings (1551 South Primrose Avenue and 1610 South Magnolia Avenue) located within the Study area boundaries are 45 years old or older (built between 1950-1957). Since these buildings are 45 years old or older, they required a historic evaluation to determine if any structures were eligible for listing in the National Register for Historic Places (NRHP), the California Register for Historic Resources (CRHR), or Local Register.

Eight of the nine residences would be directly impacted (demolished) by the Project (APN: 8507-002-011, -012, -014, -015, -017, -018, -019, -020, -022, and -023), however, all nine residences were evaluated. The eight residential homes require a Demolition Review of Main Residential Buildings as specified in the City of Monrovia's Municipal Code Chapter 17.10: Ordinance No. 2016-10. The ordinance does not apply to the two industrial buildings.

Mr. Chris Purtell, Registered Professional Archaeologist with MIG, Inc., evaluated each structure within the Study area to determine their eligibility for listing in the NRHP, the CRHR, or as a City Historic Landmark. Results of the evaluation are contained in a Cultural Resources Assessment Report prepared for the Project (MIG 2019). Details on each structure are provided below and depicted in photographs presented in Figure 9-1.

None of the nine residences in the Study Area were determined to be a historic resource pursuant to CEQA. Given that the existing residential structures were built within the historic period (50 years of age or older) and are proposed for demolition to make way for new development, the application was subject to the City's demolition permit review regulations set forth in Ordinance 2016-10. The Historic Preservation Commission completed a Determination for Historic Significance for the residential properties located at 206, 210, 212, 216, 224, 228, 234, and 238 West Evergreen on January 23, 2019. At that meeting, the Commission approved the DPR Forms

with a Status Code of 6Z. A 6Z status is assigned to properties that do not meet any of the criteria required for landmark designation.

Therefore, the Project would result in no adverse change in the significance of a historical resource, pursuant to Section 15064.5 of the CEQA Guidelines.

238 West Evergreen Avenue

The building at 238 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-011). The residence is a freestanding structure on a raised concrete foundation that sits on a corner lot between West Evergreen and South Magnolia Avenue. The property has a side front entrance, off a single concrete driveway on the west side of the property that runs in north-south direction, and an attached garage facing West Evergreen Avenue. The surrounding area includes residences, paved sidewalks, streets, streetlights, commercial and light industrial facilities, and I-210 to the north.

The single-family residence is a one-story stucco structure with a hipped roof that exhibits an early post-war tract architectural style (1940's-1960's). It has a symmetrical façade in a L shaped plan, with a long, east-west axis facing West Evergreen Avenue. The front of the residence faces West Evergreen and has a small covered entrance, no porch, no visible chimney, a plain exterior with no distinguishing characteristics, and landscaping composed of an unmanicured dirt and grass lawn, and non-native plants and trees. The backyard was fenced off and was unavailable for survey during the site visit.

The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of wood-pane windows appear to be original to the house on all four sides of the structure. The overall condition of the house is fair.

The structure at 238 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

Additionally, the building at 238 West Evergreen Avenue does not appear to be individually listed on the National Register under Criterion C, or the California Register under Criterion 3, because the current architecture follows an early post-war tract housing design with characteristics common to houses built during the mid-twentieth century. The windows, garage, single panel front door, and roofline appear to be original. The house's style and stucco construction are a common design element that were widely used throughout the region and this type of building does not embody distinctive characteristics of a particular type, period, or method of construction. Furthermore, it does not reach individual significance that would make it eligible for listing on the National Register or California Register.



Photograph 1
238 West Evergreen, view towards the south.



Photograph 2
234 West Evergreen Avenue, view towards the south.

Figure 9-1: Historic Structures Photographs



Photograph 3
230 West Evergreen, view towards the south.

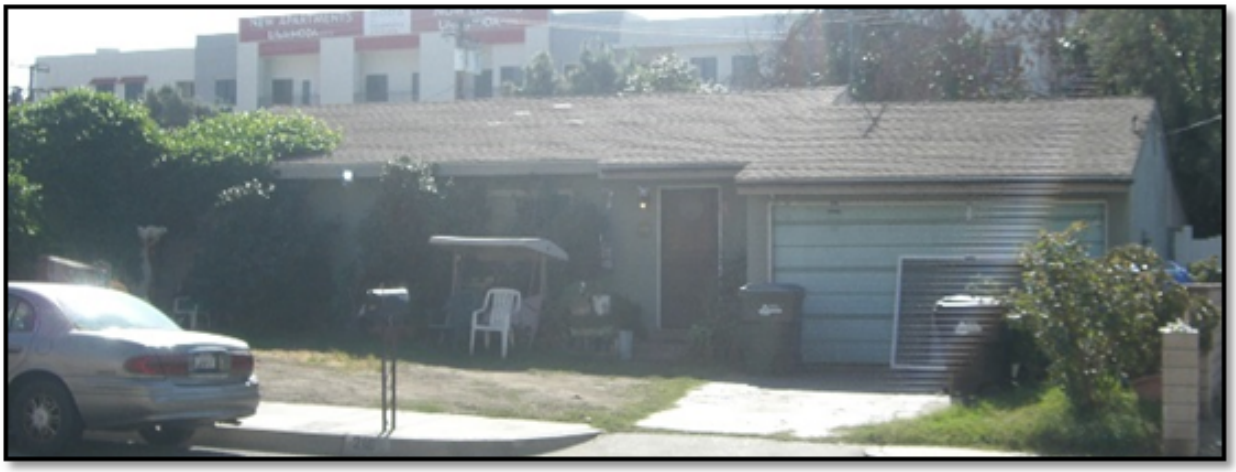


Photograph 4
228 West Evergreen, view towards the south.

Figure 9-1: Historic Structures Photographs



Photograph 5
224 West Evergreen Avenue, view towards the south.



Photograph 6
216 West Evergreen Avenue, view towards the south

Figure 9-1: Historic Structures Photographs



Photograph 7
212 West Evergreen Avenue, view towards the south.



Photograph 8
210 West Evergreen, view towards the south.

Figure 9-1: Historic Structures Photographs



Photograph 9
206 West Evergreen Avenue, view towards the south.



Photograph 10
1551 South Primrose, view towards the west.

Figure 9-1: Historic Structures Photographs



Photograph 11
1610 South Magnolia Avenue, view towards the east.



Photograph 12
Project Site, 220 West Evergreen Avenue (APN:8507-002-036), view towards the south.

Figure 9-1: Historic Structures Photographs



Photograph 13
Project Site, 202 West Evergreen (APN:8507-002-037), view towards the south.



Photograph 14
Project Site, along West Evergreen Avenue, view towards the west.

Figure 9-1: Historic Structures Photographs



Photograph 15
Project Site, along South Primrose Avenue, view towards the south.



Photograph 16
Project Site, along West Pomona Avenue, view towards the east.

Figure 9-1: Historic Structures Photographs



Photograph 17
Project Site, along South Magnolia Avenue, view towards the south.

Figure 9-1: Historic Structures Photographs

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Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 238 West Evergreen Avenue.

The building at 238 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 238 West Evergreen Avenue is not listed on the City's register. The building at 238 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

234 West Evergreen Avenue

The building at 234 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-012). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in a rectangular-shaped plan. The property exhibits a street facing entrance and a single concrete driveway located on the eastern side of the house in a north-south direction that leads to a detached backyard garage facing West Evergreen Avenue. The surrounding area includes residences, paved sidewalks, streets, streetlights, and I- 210 to the north. The residence is a one-story stucco structure with a medium-pitched gable roof and is an example of a minimal traditional architectural style (1930's-1950's), with a long east-west axis along West Evergreen Avenue. The front of the residence faces West Evergreen and exhibits a small covered entrance, no porch, a single panel front door, no visible chimney, a plain exterior with no distinguishing characteristics, and landscaping composed of an unmanicured dirt lawn, non-native plants, and small trees. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of wood-pane windows appear to be original to the house and are located on all four sides of the structure. The overall condition of the house is fair. The building at 234 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The residence also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

In addition, it does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture of 234 West Evergreen Avenue follows a minimal traditional housing design, with characteristics common to houses built during the mid-twentieth century. The residence's windows, single panel front door, roofline and detached garage appear to be original. The house's style and stucco construction are common design elements that were widely used throughout the region; this type of building does not embody distinctive characteristics of a particular type, period or method of construction. It does

not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to building at 234 West Evergreen Avenue.

The building at 234 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 234 West Evergreen Avenue is not listed on the City's register. The building at 234 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource, pursuant to Section 15064.5 of the CEQA Guidelines).

230 West Evergreen Avenue

The building at 230 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-013). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in a rectangular-shaped plan. The residence's entrance faces West Evergreen Avenue and has a single asphalt driveway on the west side of the property in a north-south direction leading to an attached garage that faces West Evergreen Avenue. The surrounding area include paved sidewalks, streets, streetlights, residences, industrial facilities, and I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and is an example of a minimal traditional architectural style (1930's-1950's) with a long east-west axis facing West Evergreen Avenue. The residence has a small covered entrance, a single panel front door, no visible chimney, a plain exterior with minimal distinguishing characteristics, a decorative gravel walkway, and landscaping composed of a manicured grass lawn and non-native plants and shrubs. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of wood-pane windows, with shutters appear to be original to the house and are located on all four sides of the structure. The overall condition of the house is good.

The building at 230 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register. The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building. In addition, the residence does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture of 230 West Evergreen Avenue follows a minimal traditional housing design, with characteristics common to houses built during the mid-twentieth century. The house's covered entrance, windows, single panel front door, roofline and attached garage appear to be original. The house's style and stucco construction are common design elements that were widely used throughout the region and this type of building does not embody distinctive

characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register. Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 230 West Evergreen Avenue.

The building at 230 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 230 West Evergreen Avenue is not listed on the City's register. The building at 230 West Evergreen Avenue is not a historic resource for the purposes of CEQA. This building would not be demolished under the Project, but construction of the Project would occur on three sides of the residence. However, because the building is not a historic resource as defined in CEQA, the Project would result in no adverse change in the significance of a historical resource (Section 15064.5 of the CEQA Guidelines).

228 West Evergreen Avenue

The building at 228 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-014). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in an L-shaped plan. The residence faces West Evergreen and has a single driveway on the east side of the property in a north-south direction that leads to a detached backyard garage also facing West Evergreen Avenue. The surrounding area includes paved sidewalks, streets, streetlights, residences and the I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and has an early post-war tract architectural style (1940's-1960's). The residence has an L-shaped plan, with a long east-west axis facing West Evergreen Avenue. The residence has no porch, a single panel front door, no visible chimney, a plain exterior with no distinguishing characteristics, and landscaping composed of an unmanicured grass/dirt lawn, with palm and non-native trees and shrubs. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of wood-pane appear to be original to the house and are located on all four sides of the structure. The overall condition of the house is fair to poor.

The building at 228 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register. The building does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building. Additionally, the building at 228 West Evergreen Avenue does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture of 228 West Evergreen Avenue follows an early post-war tract housing design, with characteristics common to houses built during the mid-twentieth century. The house's windows, garage, single panel front door, and roofline appear to be original. The house's style and stucco construction are common design elements that were widely used throughout the region and this type of building does not embody distinctive

characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

The building at 228 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 228 West Evergreen Avenue is not listed on the City's register. The building at 228 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

224 West Evergreen Avenue

The building at 224 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-015). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in an L-shaped plan. The residence exhibits a side front entrance, off a single concrete driveway on the west side of the property that runs in a north-south direction, with an attached garage facing West Evergreen Avenue. The surrounding area includes paved sidewalks, streets, streetlights, residences, industrial facilities, and I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and has an early post-war tract architectural style (1940's-1960's). The residence has an L-shaped plan, with a long east-west axis facing West Evergreen Avenue. The residence faces West Evergreen and exhibits a covered entrance, single panel front door, no porch, no visible chimney, a plain exterior with no distinguishing characteristics, with landscaping composed of a manicured grass lawn and non-native plants and shrubs. The backyard was fenced off and was unavailable for survey during the site visit. The main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of wood-pane windows appear to be original to the house and are located on all four sides of the structure. The overall condition of the house is good.

The building at 224 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

In addition, the building does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture follows an early post-war tract housing design, with characteristics common to houses built during the mid-twentieth century. The house's windows, garage, single panel front door, and roofline appear to be original. The house's style and stucco construction are common design elements that were widely used throughout the region and this type of building does not embody distinctive characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 224 West Evergreen Avenue.

The building at 224 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 224 West Evergreen Avenue is not listed on the City's register. 224 West Evergreen Avenue building is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

216 West Evergreen Avenue

The building at 216 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-017). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in a rectangular-shaped plan. The residence faces West Evergreen, with a single concrete driveway on the west side of the property that runs in a north-south direction leading to an attached garage that also faces West Evergreen Avenue. The surrounding area includes paved sidewalks, streets, streetlights, residences, and the I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and has a minimal traditional architectural style (1930's-1950's). The residence has a rectangular-shaped plan, with a long east-west axis facing West Evergreen Avenue. The residence has a small covered entrance, single panel front door, no visible chimney, a plain exterior with no distinguishing characteristics, and landscaping composed of a grass lawn, with non-native plants, trees and shrubs. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of wood-pane windows appear to be original to the house and are located on all four sides of the structure. The overall condition of the house is fair to poor.

The building at 216 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

In addition, the house does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture follows a minimal traditional housing design, with characteristics common to houses built during the mid-twentieth century. The house's covered front entrance, windows, roofline, and attached garage appear to be original. The house's style and stucco construction are common design elements that were widely used throughout the region and this type of building does not embody distinctive

characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 216 West Evergreen Avenue.

The building at 216 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 216 West Evergreen Avenue is not listed on the City's register. The building at 216 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

212 West Evergreen Avenue

The building at 212 West Evergreen Avenue is a single-family residence built in 1951 (APN: 8507-002-018). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in an L-shaped plan. The residence faces the street, with a single concrete driveway on the west side that runs north to south, with an attached garage facing West Evergreen Avenue. The surrounding area includes paved sidewalks, streets, streetlights, industrial facilities on the west, and the I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and has an early post-war tract architectural style (1940's-1960's), The residence has a covered entrance, no porch, no visible chimney, a plain exterior with no distinguishing characteristics, a non-original wrought iron fence and gate that stretches across the front of the house and driveway, with landscaping composed of a manicured grass lawn, and non-native trees, plants and shrubs. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of vinyl-pane windows and are not original to the house. The windows are located on all four sides of the structure. The overall condition of the house is good to excellent.

The building at 212 West Evergreen Avenue building does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building at 212 West Evergreen Avenue also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

Additionally, the building does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture of follows an early post-war tract housing design, with characteristics common to houses built during the mid-twentieth century. The house's garage, single panel front door, and roofline appear to be original. The house's style and stucco construction are common design elements that were widely used

throughout the region and this type of building does not embody distinctive characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 212 West Evergreen Avenue.

The building at 212 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 212 West Evergreen Avenue is not listed on the City's register. The building at 212 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

210 West Evergreen Avenue

The building at 210 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-019). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in a rectangular-shaped plan. The residence faces West Evergreen Avenue, with a single driveway on the east side in a north-south direction leading to an attached garage that faces West Evergreen Avenue. The surrounding area includes paved sidewalks, streets, streetlights, residences, and the I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and has a minimal traditional architectural style (1930's-1950's). The residence has a small covered entrance, no porch, no visible chimney, a plain exterior with no distinguishing characteristics, and landscaping composed of a manicured grass lawn and non-native plants and small trees. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of vinyl-pane windows are not original to the house and are located on all four sides of the structure. The overall condition of the house is good to excellent.

The building at 210 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

Additionally, the property does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture of 210 West Evergreen Avenue follows an early post-war tract housing design, with characteristics common to houses built during the mid-twentieth century. The house's garage and roofline appear to be original. The house's style and stucco construction are common design elements that were widely

used throughout the region and this type of building does not embody distinctive characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 210 West Evergreen Avenue.

The building at 210 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 210 West Evergreen Avenue is not listed on the City's register. The building at 210 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

206 West Evergreen Avenue

The building at 206 West Evergreen Avenue is a single-family residence built in 1950 (APN: 8507-002-020). The residence is a freestanding structure on a raised concrete foundation that has a symmetrical façade in an L-shaped plan. The residence faces West Evergreen Avenue off a single asphalt and gravel driveway that runs on the east side in north-south direction, with an attached garage facing east towards South Primrose Avenue. The surrounding area includes paved sidewalks, streets, streetlights, residences, industrial facilities, and the I-210 to the north. The single-family residence is a one-story stucco structure with a hipped roof and has an early post-war tract architectural style (1940's-1960's). The residence has a small covered entrance, a single panel door, no porch, no visible chimney, a plain exterior with no distinguishing characteristics, and landscaping composed of grass/dirt lawn and non-native tress, plants and shrubs. The backyard was fenced off and was unavailable for survey during the site visit. The residence's main façade is characterized by a stucco exterior and a non-original composite roof. The stucco exterior extends around all four sides of the building. A series of vinyl-pane windows are pane are not original to the house and are located on all four sides of the structure. The overall condition of the house is fair to good.

The building at 206 West Evergreen Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

The building at 206 West Evergreen Avenue does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture follows an early post-war tract housing design, with characteristics common to houses built during the mid-twentieth century. The house's garage, single panel front door, and

roofline appear to be original. The house's style and stucco construction are common design elements that were widely used throughout the region and this type of building does not embody distinctive characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic and archival research, this criterion is not applicable to the building at 206 West Evergreen Avenue.

The building at 206 West Evergreen Avenue does not appear to reach the level of significance to be in the National Register for Historic Places or the California Register of Historical Resources. The City of Monrovia maintains a local register; 206 West Evergreen Avenue is not listed on the City's register. The building at 206 West Evergreen Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

1551 South Primrose Avenue

The building at 1551 South Primrose Avenue is an industrial building built in 1957 and renovated in 1977 (APN: 8507-002-023). It has a rectangular site plan, with a long east-west axis facing West Pomona Avenue and is situated between West Evergreen Avenue to the north and West Pomona Street to the south. The structure's main entrance faces South Primrose Avenue. The residence is freestanding on a raised concrete foundation with side loading docks along West Pomona Avenue. Today, the building serves as the headquarters and assembly facility for the Duracold Refrigeration Manufacturing Company. The area surrounding the building includes paved sidewalks, streets, industrial buildings, and residences. The structure is a vernacular one-story red brick building. There is one street entrance and a brick planter that faces West Primrose Avenue. The back of the building has covered loading/unloading docks, an asphalt parking lot, and a small open-air storage yard that measures approximately 108 feet long by 83 feet wide, with access through a driveway on West Pomona Avenue. The red brick façade continues on all four sides of the building and is topped by a rounded aluminum pitched roof. A series of steel-frame windows wrap around the north, south, and east of the building; the north side of the building has no doors. The overall condition of the building is good.

The building at 1551 West Primrose Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

Furthermore, 1551 West Primrose Avenue does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current

architecture of 1551 West Primrose Avenue follows a utilitarian design style, with characteristics common to industrial/commercial buildings in the middle to the late twentieth century. Alterations to the building's exterior in 1977 have masked its original appearance, and it does not retain sufficient integrity. Red brick was widely used, and this building does not embody distinctive characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic research, this criterion is not applicable to 1551 West Primrose Avenue.

The building at 1551 West Primrose Avenue retains most of its integrity. It remains in its original location, design, and setting. Most of the original building material appears to be intact, since its construction in 1957. However, there is little contribution of workmanship, feeling, or association of this building. Although it does maintain most of its integrity, it is not sufficient for eligibility. The City of Monrovia maintains a local register; 1551 West Primrose Avenue is not listed on the City's register. 1551 West Primrose Avenue building is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

1610 South Magnolia Avenue

The building at 1610 South Magnolia Avenue is an industrial building built in 1957 (APN: 8507-002-022). It is on a rectangular property facing South Magnolia Avenue, with a long east-west axis facing West Pomona Avenue and is situated between West Evergreen Avenue to the north and West Pomona Street to the south. The structure's main entrance faces South Magnolia Avenue. The building is freestanding on a raised concrete foundation, with a side entrance and loading docks located along West Pomona Avenue. The building appears to be vacant. The area surrounding the building includes paved sidewalks, streets, streetlights, industrial buildings, and residences. The building's east side has an asphalt parking lot and a paved open-air storage yard that measures approximately 142 feet long by 122 feet wide, with access through a driveway on West Pomona Avenue. The structure is a vernacular one-story red brick building. There is one street entrance facing South Magnolia Avenue and another entrance facing West Primrose Avenue. The red brick façade continues on all four sides of the building and is topped by a flat aluminum roof. A series of steel-frame windows wraps around the north, south, east, and west sides of the building. The north side of the building has no doors. The overall condition of the building is good.

The building at 1610 South Magnolia Avenue does not appear to be individually eligible for listing on the National Register under Criterion A, or the California Register under Criterion 1, for association with events that have made a significant contribution to the broad patterns of local, state, or national history. Archival research failed to uncover any significant contribution to social, political, and economic trends that were occurring in Monrovia or in the region during the era such that it would be individually eligible for listing on the National Register or California Register.

The building also does not appear to be individually eligible for listing on the National Register under Criterion B, or the California Register under Criterion 2, for resources that are associated with the lives of persons significant in history. Archival research failed to reveal any persons of historical importance that are associated with this building.

The building at 1610 South Magnolia Avenue does not appear to be individually listed on the National Register under Criterion C or the California Register under Criterion 3. The current architecture of 1610 South Magnolia Avenue follows a utilitarian design style, with characteristics common to industrial/commercial buildings in the middle to the late twentieth century. Red brick was widely used, and this building does not embody distinctive characteristics of a particular type, period or method of construction. It does not reach individual significance that would make it eligible for listing on the National Register or California Register.

Criterion D/4 is typically related to archaeological resources rather than built resources. When Criterion D/4 does relate to built resources, it is for cases when the building itself is the principal source of important construction-related information. Based on historic research, this criterion is not applicable to 1610 South Magnolia Avenue.

The building at 1610 South Magnolia Avenue retains most of its integrity. It remains in its original location, design, and setting. The original building material appears to be intact, since its construction in 1957. However, there is little contribution of workmanship, feeling, or association of this building. Although it does maintain its integrity, it is not sufficient for eligibility. The City of Monrovia maintains a local register; 1610 South Magnolia Avenue is not listed on the City's register. The building at 1610 South Magnolia Avenue is not a historic resource for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

Impact Conclusion

None of the nine residential structures evaluated for historic significance represent were determined to historic resources for the purposes of CEQA. Therefore, the Project would result in no adverse change in the significance of a historical resource pursuant to Section 15064.5 of the CEQA Guidelines.

Mitigation Measures

No mitigation measures are required.

IMPACT CUL-2 ARCHAEOLOGICAL RESOURCES

Results from the CHRIS-SCCIC search indicate that no previously recorded archaeological resources have been identified within the Study area or Project area. The Project area is graded, heavily disturbed, and has been developed within an urban industrial setting for decades. However, despite the heavy disturbances of the Project area that may have displaced archaeological resources on the surface, it is possible that intact archaeological resources exist beneath the surface due to prehistoric and historic occupation of the Project area, that could be disturbed as a result of excavation proposed under the Project (i.e., excavation of the subterranean garage and excavation for building foundations). As a result, Mitigation Measures MM CUL-1, MM CUL-2, MM CUL-3, and MM CUL-4 are required to reduce potentially significant impacts to previously undiscovered archaeological resources that may be accidentally encountered during Project implementation to a less than significant level. With implementation of these mitigation measures, the Project would not result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the CEQA Guidelines.

Mitigation Measures

MM CUL-1. Conduct Archaeological Sensitivity Training for Construction Personnel. The applicant shall retain a qualified professional archaeologist who meets U.S. Secretary of the Interior's Professional Qualifications and Standards to conduct an archaeological sensitivity training for construction personnel prior to commencement of excavation activities. The training session shall include a handout and focus on how to identify archaeological resources that may be encountered during earthmoving activities; the procedures to be followed in such an event, the duties of archaeological monitors, and the general steps a qualified professional archaeologist would follow in conducting a salvage investigation, if one is necessary. **Requirements and Timing:** Measure shall be printed on all construction drawings. The archaeologist shall obtain signatures from each worker receiving the training and shall submit the list to the City following completion of construction. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

MM CUL-2. Cease Ground-Disturbing Activities and Implement Treatment Plan if Archaeological Resources Are Encountered. If archaeological resources are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities will not be allowed to continue until a qualified archaeologist has examined the newly discovered artifact(s) and has evaluated the area of the find. Work shall be allowed to continue outside of the buffer area. All archaeological resources unearthed by Project construction activities shall be evaluated by a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards. Should the newly discovered artifacts be determined to be prehistoric, Native American Tribes/Individuals shall be contacted and consulted, and Native American construction monitoring shall be initiated. The applicant and City shall coordinate with the archaeologist to develop an appropriate treatment plan for the resources. The plan may include implementation of archaeological data recovery excavations to address treatment of the resource along with subsequent laboratory processing and analysis. **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

MM CUL-3. Conduct Periodic Archaeological Resources Spot Checks during grading and earth-moving activities in Younger Alluvial Sediments. The applicant shall retain a qualified professional archaeologist, who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards to conduct periodic Archaeological Spot Checks beginning at depths below three (3) feet to determine if construction excavations have exposed or have a high probability of exposing archaeological resources. After the initial Archaeological Spot Check, further periodic checks will be conducted at the discretion of the qualified archaeologist. If the qualified archaeologist determines that construction excavations have exposed or have a high probability of exposing archaeological artifacts, ongoing construction monitoring for archaeological resources shall be required. For the ongoing monitoring, the applicant shall retain a qualified archaeological monitor and Native American monitor, who will work under the guidance and direction of a professional archaeologist, who meets the qualifications set forth by the U.S. Secretary of the Interior's Professional Qualifications and Standards. The archaeological monitor and Native American monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into non-fill younger Pleistocene alluvial sediments. Multiple earth-moving construction activities may require multiple archaeological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known

archaeological resources, the materials being excavated (native versus artificial fill soils), the depth of excavation, and if found, the abundance and type of archaeological resources encountered. Full-time monitoring can be reduced to part-time inspections as directed by the Project archaeologist. **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

MM CUL-4. Prepare Report Upon Completion of Monitoring Services. The archaeological monitor, under the direction of a qualified professional archaeologist who meets the U.S. Secretary of the Interior's Professional Qualifications and Standards, shall prepare a final report at the conclusion of archaeological monitoring. The report shall be submitted to the applicant, the South Central Coastal Information Center, the City, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and compliance with required mitigation measures. The report shall include a description of resources unearthed, if any, evaluation of the resources with respect to the California Register and CEQA, and treatment of the resources. **Requirements and Timing:** Measure shall be printed on all construction drawings. An archaeological monitoring report shall be prepared and submitted for City review and approval prior to final sign off on construction. **Monitoring:** City Planning staff shall review and approve the archaeological monitoring report prior to final sign off on construction.

IMPACT CUL-3 HUMAN REMAINS

No known human remains have been identified from the CHRIS-SCCIC database within a one-mile radius of the Study area. No human remains were identified during the pedestrian survey of the Study area. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which could be encountered during construction excavations associated with the Project. In particular, given the proven prehistoric occupation of the region, the identification of the Santa Anita Wash and the San Gabriel River both located within a two-mile radius of the Project area, buried human remains could be unearthed during construction. As a result, Mitigation Measure MM CUL-5 is required to reduce impacts associated with finding previously unknown human remains during construction to a less than significant level. With implementation of this mitigation measure, the Project would not disturb any human remains, including those interred outside formal cemeteries.

Mitigation Measures

MM CUL-5. Cease Ground-Disturbing Activities and Notify County Coroner If Human Remains Are Encountered. If human remains are unearthed during implementation of the Project, the City of Monrovia and the applicant shall comply with State Health and Safety Code Section 6050.5. The City of Monrovia and the applicant shall immediately notify the County Coroner and no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). After the MLD has inspected the remains and the site, they have 48 hours to recommend to the landowner the treatment and/or disposal, with appropriate dignity, of the human remains and any associated funerary objects. Upon the reburial of the human remains, the MLD shall file a record of reburial with the NAHC and the Project archaeologist shall file a record of the reburial with the CHRIS-SCCIC. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects

the recommendation of the MLD and the mediation provided for in Subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance. **Requirements and Timing:** Measure shall be printed on all construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

IMPACT CUL-4 TRIBAL CULTURAL RESOURCES

The Project area is graded, heavily disturbed, and has been developed within an urban industrial setting for decades. The results of the records research compiled from the CHRIS-SCCIC search and the Sacred Lands File search (commissioned through the NAHC) failed to indicate known TCRs within the Study area boundaries or within a one-half mile radius of the Project area as specified in Public Resources Code (PRC): Sections 210741, 5020.1(k), or 5024.

On January 10, 2019, the City of Monrovia consulted with Mr. Andrew Salas, Chairman of the Kizh Nation of the Gabrieleno Band of Mission Indians, on the Project under AB 52 and SB 18. At that time, Mr. Salas provided the City with a map of village sites and trade routes important to the Kizh Nation of the Gabrieleno Band of Mission Indians. None of these resources are present in or near the Project area. On January 10, 2019, Mr. Salas also submitted a list of recommended measures to be taken to appropriately handle Tribal Cultural Resources and human remains including recommended monitoring by a Native American monitor during construction-related ground disturbing activities, and methods for treatment of TCRs if inadvertently discovered.

Although no impacts to TCR are anticipated, mitigation measures MM CUL-1 to MM CUL-4, and MM CUL-5 would also address any previously undiscovered archaeological resources relating to TCRs encountered during Project implementation. Therefore, the Project would not cause a substantial adverse change in the significance of a TCR.

Mitigation Measures

Refer to mitigation measures MM CUL-1 through MM CUL-4 and MM CUL-5.

9.2.4 Impact Conclusions

Project impacts on historic resources, archaeological resources, and TCRs would be less than significant with mitigation incorporated.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
AMSL	Above mean sea level
APN	Assessor's Parcel Number
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHLs	California Historical Landmarks
CHRIS-SCCIC	South Central Coastal Information Center

CPHI	California Points of Historical Interest
CRHR	California Register of Historical Resources
EIR	Environmental Impact Report
HRI	Historic Resources Inventory
I-210	Interstate-210
MLD	Most Likely Descendent
MM	Mitigation measure
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
PRC	California Public Resources Code
SHPO	State Historic Preservation Officer
SB	Senate Bill
SLF	Sacred Lands File
TCR	Tribal Cultural Resources
U.S.C.	United States Code
§	section

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10. GEOLOGY AND SOILS

This EIR Chapter describes the existing geology and soils conditions in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

10.1 SETTING

The environmental and regulatory setting with respect to geology and soils is described in detail in LGC Geotechnical, Inc.'s (LGC) 2018 Geotechnical Report prepared for The Arroyo at Monrovia Station Specific Plan contained in Appendix F (LGC 2018), as well as the Monrovia General Plan's Safety Element (City of Monrovia 2002). Pursuant to Section 15150 of the CEQA Guidelines, these documents are herein incorporated by reference into this EIR and are available upon request.

10.1.1 Environmental Setting

The Geotechnical Report by LGC Geotechnical, Inc. (2018) and the Monrovia General Plan Safety Element describe the existing conditions related to geology (including seismic hazards), soils, and minerals in the Project area. In addition, a paleontological resources records search was conducted through the Vertebrate Paleontological Department of the Natural History Museum of Los Angeles County in Los Angeles, California (NHMLAC). A summary of the geologic conditions in the Project area are provided below.

Regional Geology

The Project area is located within the northeastern boundary of the Peninsular Ranges Geomorphic Province. The San Gabriel Mountain Range rises north of the site and provides the sediment source for the alluvial fan deposits that underlie the area of the subject site. The site is located in the San Gabriel Valley, west of the San Gabriel River.

Monrovia is geologically bounded at the north by the Raymond Fault and Sierra Madre Fault Zone. The Raymond Fault is a left lateral fault that is generally assumed to be a part of the San Andreas Fault system; however, there is an indication of some reverse-slip motion along the fault. The Sierra Madre Fault Zone consists of reverse faults dipping to the north. The northeast trending Raymond Fault joins the east west trending Sierra Madre Fault Zone approximately two miles to the north of the site.

Soil Conditions

The Project area contains up to approximately 7.5 feet of artificial fill over native young alluvial fan deposits. Artificial fill soils are primarily silty sands and sands. Native alluvial fan deposits are primarily medium dense to very dense sands, silty sands, gravels, and cobbles and stiff to hard sandy silts and silts, extending at least 100 feet below existing grade.

Groundwater

Groundwater was not detected during the geotechnical investigation for the Project area in borings up to 100 feet below the ground surface (LGC 2018). Historically, the highest groundwater level in the area is approximately 150 feet beneath the ground surface (LGC 2018).

Geologic Hazards

Seismicity, Surface Faults, and Ground Shaking

The Project area is not located within an established State of California Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. No active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the Project area. Therefore, the potential for surface rupture due to faulting occurring beneath the Project area during the design life of the proposed development is considered low. However, the Project area is located in the seismically active Southern California region, and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active southern California faults.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the southern California region include ground lurching and shallow ground rupture, soil liquefaction, and dynamic settlement. The nearby major active faults that could produce these secondary effects include the Raymond, Sierra Madre, Elsinore and San Andreas Faults, among others. A discussion of these secondary effects is provided in the following sections.

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil. Given the historical depth to groundwater, the potential for liquefaction and associated ground deformations beneath the Project area is very low. Additionally, the site is not located within a State of California Seismic Hazard Zone for liquefaction potential (CDMG 1999).

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Due to the lack of groundwater in the upper 50 feet and very low potential for liquefaction, the potential for lateral spreading is considered very low.

Slope Stability/Landslides

The Project area has minor relief and is relatively level, with surface elevations ranging from approximately 439 to 452 feet above mean sea level (msl). Topography slopes downward to the southwest. The State of California Seismic Hazard Zone Map for the Mount Wilson Quadrangle (CGS 2017; CDMG 1999) indicates that the site is not located within a zone of required investigation for earthquake-induced landslides. There are no known landslides near the Project, nor is the Project in the path of any known or potential landslides.

Earthquake-Induced Flooding

Earthquake-induced flooding is inundation caused by failure of dams or other water-retaining structures due to earthquakes. The City of Monrovia Safety Element (2002) indicates that the site

is located within the potential inundation area for the Santa Anita Dam and Sawpit Dam. However, these reservoirs are continually monitored by various governmental agencies to guard against the threat of dam failure. Current design, construction practices, and ongoing programs of review, modification, or total reconstruction of existing dams are intended to ensure that all dams are capable of withstanding the maximum considered earthquake (MCE) for the site. Therefore, the potential for inundation at the Project area as a result of an earthquake-induced dam failure is considered low.

Tsunamis, Seiche, and Flooding

The Project is not located within a coastal area. Therefore, tsunamis, seismic sea waves, are not considered a significant hazard at the site. Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the Project area. Therefore, flooding from a seismically-induced seiche is considered unlikely.

Subsidence

Subsidence occurs when a large portion of the ground surface is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Information on the California Division of Oil, Gas and Geothermal Resources (DOGGR) Well Finder Website (DOGGR 2019) indicates the site is not located within the limits of an oilfield, and that no oil or gas wells are located within a mile of the site vicinity. Additionally, no large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring or planned at the Project area or in the general site vicinity. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

However, the Project area does have slightly collapsible soils (LGC 2018). The collapse potential (or hydro-collapse) of the tested samples during the geotechnical investigation for the Project ranged from approximately 0.6 to 0.7 percent in the upper 25 feet of soil which is considered to be slightly susceptible to hydro-collapse (LGC 2018).

Paleontological Setting

The Project area is comprised of surface sediments composed of younger Quaternary Alluvium, derived as alluvial fan deposits from the San Gabriel Mountains to the north. These sediments are likely underlain, possibly at relatively shallow depths, by older Quaternary deposits found at varying depths that may well contain significant vertebrate fossils (McLeod 2018). Excavations that extend down into older sedimentary deposits may well uncover significant vertebrate fossil remains and, therefore, should be closely monitored to quickly and professionally collect any vertebrate fossil remains without impeding development (McLeod 2018).

10.1.2 Regulatory Setting

A summary of Federal, State, and local regulations relevant to geology and soils is found below.

Federal

Earthquake Hazard Reduction Act of 1977 (Amended 2004)

The Earthquake Hazard Reduction Act primarily aims to reduce loss of life, injury, destruction of property, economic destruction, and social disruption via the implementation of earthquake hazard reduction measures. These measures include improved design and construction methods and practices, land-use controls and redevelopment, prediction and early-warning systems, coordinated emergency preparedness plans, and public education/involvement programs. The Act led to the creation of the National Earthquake Hazards Reduction Program (NEHRP). Established by Congress in 1977, the NEHRP focuses on those hazard reduction measures outlined in the Earthquake Hazard Reduction Act. The NEHRP is a collaborative effort among the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF), and the United States Geological Survey (USGS).

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code Sections 2621-2630) was passed in 1972 to mitigate the potential hazard of surface faults to structures for human occupancy. The main purpose of the Act is to prevent the construction of human-occupied buildings over active faults. The Act only addresses the hazard of fault rupture and is not directed toward other earthquake hazards.

The Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue maps to all affected cities, counties, and State agencies for their use in planning and controlling development. Local agencies must regulate most development projects within the zones, and there generally can be no construction for human occupancy within 50 feet of an active fault zone.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (Public Resources Code Sections 2690-2699.6) was passed in 1990 to address earthquake hazards other than fault rupture, including liquefaction and seismically induced landslides. Seismic Hazard Zones are mapped by the State Geologist to assist local governments in land use planning. The purpose of the Act is to "reduce the threat to public safety and to minimize the loss of life and property by identifying and mitigating these seismic hazards."

California Building Code

The California Building Code (CBC), Title 24, serves as the basis for the design and construction of buildings in California. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress, and general stability by controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of buildings and structures. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

Local

City of Monrovia General Plan: Safety Element

The General Plan Safety Element identifies and evaluates natural hazards associated with seismic activity, landslides, flooding and fire within the City of Monrovia. The document provides the goals for each of the relevant City departments to provide responsible planning resulting in reduction of loss of life, injuries, damage to property and other losses associated with such disasters, and to act as a guide to prepare for possible natural or human-induced disasters.

The following policy of the Safety Element applies to the Project:

- **Policy 1.3.2.** If through an EIR, or if detailed geologic investigation confirms existence of seismic hazards, the City shall require special earthquake resistant design features or use limitations, as appropriate, to protect the public health and safety and to reduce the exposure of individuals and property to seismic risks.

10.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to geology (including seismicity) and soils that could result from Project implementation and recommends any mitigation measures needed to reduce significant impacts.

10.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items VII (a) through (e), implementation of the Project would have a significant impact related to geology and soils if it would:

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

(1) 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 (Division of Mines and Geology Special Publication 42);

(2) Strong seismic ground shaking;

(3) Seismic-related ground failure, including liquefaction; or

(4) Landslides;

(b) Result in substantial soil erosion or the loss of topsoil;

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

(d) Be located on expansive soil, as defined by Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property;

(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or

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

10.2.2 Environmental Impacts

IMPACT GEO-1 SEISMIC HAZARDS

While the Project area is not at risk for fault rupture as outlined by the Alquist-Priolo Earthquake Fault Zones, the nearby San Jose Fault has the potential of generating earthquakes of magnitudes ranging from 6.0 to 6.5 on the Richter Magnitude Scale. Strong earthquakes can cause widespread property damage, injury, and loss of life. Secondary impacts include fires and disruption of utilities and service systems. The geotechnical report (LGC 2018) concluded that the potential for surface rupture due to faulting occurring beneath the Project area during the design life of the proposed development is considered low and that the Specific Plan can be developed as proposed, with some recommendations made in the Geotechnical Report regarding site design and construction. Therefore, with preparation and implementation of recommendations in this geotechnical report as required by mitigation measure MM GEO-1, seismic impacts associated with the Project would be less than significant.

Finally, the Project area is not in a coastal zone nor is it near any water bodies. Therefore, there is no risk for tsunami or flooding from a seismically-induced seiche. The City of Monrovia Safety Element (2002) indicates that the site is located within the potential inundation area for the Santa Anita Dam and Sawpit Dam. However, these reservoirs are continually monitored by governmental agencies to guard against the threat of dam failure. All permitted dams are capable of withstanding the maximum considered earthquake (MCE) for the site. Therefore, the potential for inundation at the Project area as a result of an earthquake-induced dam failure is considered low and impacts would be less than significant.

Mitigation Measures

MM GEO-1. Prior to the issuance of grading and building permits for the proposed development, the applicant shall retain a California registered and licensed geotechnical engineer to prepare a Geotechnical Report to provide construction and design recommendations for the proposed facilities to withstand probable seismically induced ground shaking. The Geotechnical Report shall provide specific recommendations for structural foundations and specifications and procedures for grading, including the suitability of onsite materials for use as fill. All grading, drainage, and building plans shall include all recommendations of the final Geotechnical Report for the development. **Requirements and Timing:** The Geotechnical Report shall be reviewed and approved by the City Department of Public Works prior to issuance of grading and permits. In addition, the geotechnical engineers for the development shall sign a title block on the grading, drainage, and building plans stating that the recommendations of the development's Geotechnical Report have been followed in the approved plans that he or she is signing. **Monitoring:** City Department of Public Works staff shall review and approve of the Geotechnical Report, and that grading, drainage, and building plans are signed by the geotechnical engineer, prior to issuance of grading and building permits.

IMPACT GEO-2 EROSION

Per State and local stormwater regulations (see Chapter 13, Hydrology and Water Quality), the Project includes a drainage system designed to collect and control all site drainage in non-erosive drainage devices such that drainage not be allowed to pond anywhere on the site. Therefore, the potential for erosion or loss of topsoil resulting from the Project is low; impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT GEO-3 LANDSLIDES, SUBSIDENCE, AND LIQUEFACTION

The Project area is relatively flat and does not lie in the path of any known or potential landslides. The site is not within a zone requiring investigation for liquefaction and there appears to be little or no potential for ground subsidence; therefore, the risk of liquefaction or subsidence is considered to be low.

The Geotechnical Report (LGC 2018) concludes that there is a slight potential for hydro-collapse due to the presence of collapsible soils in the upper 25 feet of soil on the Project area. An infiltration test was performed as part of the geotechnical investigation. Per the requirements of the Los Angeles County infiltration testing guidelines (County of Los Angeles 2017), subsurface materials shall have a design infiltration rate equal to or greater than 0.3 inches per hour, and the infiltration test performed in the Project area did not meet these minimum requirements. Therefore, due to an unacceptable field infiltration test indicating unacceptable infiltration rates and the presence of collapsible soils in the upper approximately 25 feet of onsite native soils susceptible to hydro-collapse, LGC does not recommend that stormwater be intentionally infiltrated into subsurface soils at depths shallower than approximately 25 to 30 feet below existing grade. LGC concluded that stormwater may be infiltrated into the subsurface soils via a dry well infiltration system from depths of approximately 30 to 75 feet below existing grade but that caving may occur at depths shallower than the target depth of 75 feet below existing grade during excavation of the dry well.

The proposed drainage system includes two dry wells and underground storage tanks (KHR 2018) (see Chapter 13, Hydrology and Water Quality). The dry wells would be designed to infiltrate at a depth of 75 feet below grade. Therefore, LGC's recommendations would be met. Mitigation Measure MM GEO-1 ensures this measure is also adhered to during construction. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT GEO-4 EXPANSIVE SOILS

Soils within the Project area are considered to have "very low" expansive potential and are considered non-expansive, as defined by Table 18-1-B of the Uniform Building Code (LGC 2018). Implementation of the Project would not create substantial risks to life or property involving expansive soils. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT GEO-5 SEPTIC TANKS OR ALTERNATIVE WASTEWATER DISPOSAL

The Project area is served by a sewer system. No septic tanks are proposed. No impact would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT GEO-6 PALEONTOLOGICAL RESOURCES

Results of the paleontological resources records search through the NHMLAC indicate no known vertebrate fossil localities from the NHMLAC database have been previously identified within the Project area or within a mile radius. Three fossil localities, LACM 1807 (Mastodon), LACM 2027 (Mammoth), and LACM CTI 342 (Turkey), are located within a 5 to12-mile radius of the Project that were discovered within the same sedimentary deposits at depths that extend into the Project area (McLeod 2018).

The results of the literature review and the search at the NHMLAC indicate that the Project area is comprised of surface sediments composed of younger Quaternary Alluvium, derived as alluvial fan deposits from the San Gabriel Mountains to the north. These sediments are likely underlain, possibly at relatively shallow depths, by older Quaternary deposits found at varying depths that could contain significant vertebrate fossils (McLeod 2018). Excavations that extend down into older sedimentary deposits could uncover significant vertebrate fossil remains and therefore should be closely monitored to quickly and professionally collect any vertebrate fossil remains without impeding development (McLeod 2018). Due to these findings, Mitigation Measures MM GEO-24 through MM GEO-5 are required to reduce potentially significant impacts on previously undiscovered paleontological resources and/or unique geological features that may be accidentally encountered during Project implementation to a less than significant level. With implementation of these mitigation measures, the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Mitigation Measures

MM GEO-2. Conduct Paleontological Sensitivity Training for Construction Personnel. The applicant shall retain a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct a paleontological sensitivity training for construction personnel prior to commencement of excavation activities. The training shall include a handout and shall focus on how to identify paleontological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event, the duties of paleontological monitors, notification and other procedures to follow upon discovery of resources, and the general steps a qualified professional paleontologist would follow in conducting a salvage investigation if one is necessary. **Requirements and Timing:** This measure shall be printed on all grading and construction drawings. The paleontologist shall obtain signatures from each worker receiving the training and shall submit the list to the City following completion of construction. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

MM GEO-3. Conduct Periodic Paleontological Spot Checks during Grading and Earth-moving Activities. The applicant shall retain a professional paleontologist who meets the qualifications set forth by the Society of Vertebrate Paleontology and shall conduct periodic Paleontological Spot Checks beginning at depths below six feet to determine if construction excavations have extended into older Quaternary deposits. After the initial paleontological spot check, further periodic checks shall be conducted at the discretion of the qualified paleontologist. If the qualified paleontologist determines that construction excavations have extended into the older Quaternary deposits, construction monitoring for paleontological resources shall be required. The applicant shall retain a qualified paleontological monitor, who work under the guidance and direction of a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology. The paleontological monitor shall be present during all construction excavations (e.g., grading, trenching, or clearing/grubbing) into the older Pleistocene alluvial deposits. Multiple earth- moving construction activities may require multiple paleontological monitors. The frequency of monitoring shall be based on the rate of excavation and grading activities, proximity to known paleontological resources and/or unique geological features, the materials being excavated (native versus artificial fill soils), and the depth of excavation, and if found, the abundance and type of paleontological resources and/or unique geological features encountered. Full-time monitoring can be reduced to part-time inspections if directed by the qualified professional paleontologist. **Requirements and Timing:** This measure shall be printed on all grading and construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

MM GEO-4. Cease Ground-Disturbing Activities and Implement Treatment Plan if Paleontological Resources Are Encountered. If paleontological resources and/or unique geological features are unearthed during ground-disturbing activities, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. A buffer area of at least 50 feet shall be established around the find where construction activities shall not be allowed to continue until appropriate paleontological treatment plan has been approved by the applicant and the City. Work shall be allowed to continue outside of the buffer area. The applicant and City shall coordinate with a professional paleontologist, who meets the qualifications set forth by the Society of Vertebrate Paleontology, to develop an appropriate treatment plan for the resources. Treatment may include implementation of paleontological salvage excavations to remove the resource along with subsequent laboratory processing and analysis or preservation in place. At the paleontologist's discretion and to reduce construction delay, the grading and excavation contractor shall assist in removing rock samples for initial processing. **Requirements and Timing:** This measure shall be printed on all grading and construction drawings. **Monitoring:** City Planning staff shall conduct periodic inspections in the field during construction to ensure measure is adhered to.

MM GEO-5. Report Upon Completion of Monitoring or Salvage Services. Upon completion of the above activities, the professional paleontologist shall prepare a report summarizing the results of the monitoring and salvaging efforts, the methodology used in these efforts, as well as a description of the fossils collected and their significance. The report shall be submitted to the applicant, the City, the Natural History Museum of Los Angeles County, and representatives of other appropriate or concerned agencies to signify the satisfactory completion construction. **Requirements and Timing:** This measure shall be printed on all construction drawings. An archaeological monitoring report shall be prepared and submitted for City review and approval prior to final sign off on construction. **Monitoring:** City Planning staff shall review and approve the archaeological monitoring report prior to final sign off on construction.

10.2.3 Impact Conclusions

With preparation and implementation of geotechnical reports for new development associated with the Project in accordance with Policy 1.3.2 of the Safety Element of the Monrovia General Plan and implementation of mitigation measures MM GEO-1 through MM GEO-5, impacts on geology and soils would be less than significant.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
CBC	California Building Code
CDC	California Department of Conservation
CDMG	California Division of Mines and Geology
CEQA	California Environmental Quality Act
CGS	California Geological Survey
DOGGR	Division of Oil, Gas, and Geothermal Resources
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
LGC	LGC Geotechnical, Inc.
MCE	Maximum considered earthquake
MM	Mitigation Measure
msl	mean sea level
NEHRP	National Earthquake Hazards Reduction Program
NHMLAC	Natural History Museum of Los Angeles County
NIST	National Institute of Standards and Technology
NSF	National Science Foundation
USGS	United States Geological Survey

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11. GLOBAL CLIMATE CHANGE, GREENHOUSE GASES, AND ENERGY

This EIR Chapter describes the existing emissions of greenhouse gases (GHGs) and energy consumption in the Project area, describes the regulatory framework necessary to evaluate potential environmental impacts resulting from the Project, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce potentially significant impacts.

The methodologies and assumptions used in the preparation of this Chapter follow the CEQA Guidelines developed by the South Coast Air Quality Management District (SCAQMD 2017). Information on existing conditions, and Federal and State standards were obtained from the U.S. Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB), and SCAQMD. This GHG analysis has been closely coordinated with the air quality analysis in Chapter 7 of this EIR. A stand-alone Air Quality and GHG Impact Analysis report was prepared for the Project and is contained in Appendix C (MIG 2019).

11.1 SETTING

11.1.1 Environmental Setting

Climate Change

Climate change is the distinct change in measures of climate for a long period of time. Climate change can result from natural processes and from human activities. Natural changes in the climate can be caused by indirect processes such as changes in the Earth's orbit around the Sun or direct changes within the climate system itself (i.e. changes in ocean circulation). Human activities can affect the atmosphere through emissions of gases and changes to the planet's surface. Emissions affect the atmosphere directly by changing its chemical composition, while changes to the land surface indirectly affects the atmosphere by changing the way the Earth absorbs gases from the atmosphere. The term "climate change" is preferred over the term "global warming" because "climate change" conveys the fact that other changes can occur beyond just the average increase in temperatures near the Earth's surface.

Elements that indicate that climate change is occurring on Earth include:

- Rising of global surface temperatures by 1.3° Fahrenheit (F) over the last 100 years
- Changes in precipitation patterns
- Melting ice in the Arctic
- Melting glaciers throughout the world
- Rising ocean temperatures
- Acidification of oceans
- Range shifts in plant and animal species

Climate change is intimately tied to the Earth's greenhouse effect. The greenhouse effect is a natural occurrence that helps regulate the temperature of the planet; without it, life as we know it on earth would not exist. Human activities since the beginning of the industrial revolution (approximately 150 years) have been adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap energy, thereby contributing to an average increase in the Earth's temperature. Human activities that enhance the greenhouse effect are detailed below.

Greenhouse Gases

Gases that "trap" heat in the atmosphere and affect regulation of the earth's temperature are known as "greenhouse gases" (GHGs). GHGs that contribute to climate regulation are a different type of pollutant than criteria or hazardous air pollutants (discussed in Chapter 7) because climate regulation is global in scale (both in terms of causes and effects).

Some GHGs are emitted to the atmosphere naturally by biological and geological processes, such as evaporation (water vapor), aerobic respiration (carbon dioxide, or CO_2), and off-gassing from low oxygen environments, such as swamps or exposed permafrost (methane or CH_4). However, GHG emissions from human activities such as fuel combustion (e.g., CO_2) and refrigerant use (e.g., hydrofluorocarbons or HFCs) significantly contribute to overall GHG concentrations in the atmosphere, climate regulation, and global climate change. Human production of GHG has increased steadily since pre-industrial times (approximately pre-1880), and atmospheric CO_2 concentrations have increased from a pre-industrial value of 280 parts per million (ppm) in the early 1800s to approximately 411 ppm in January 2019 (NOAA 2019). The effects of increased GHG concentrations in the atmosphere include increasing shifts in temperature and precipitation patterns and amounts, reduced ice and snow cover, sea level rise, and acidification of oceans. These effects in turn will impact food and water supplies, infrastructure, ecosystems, and overall public health and welfare.

The 1997 United Nations' Kyoto Protocol international treaty set targets for reductions in emissions of four specific greenhouse gases – CO_2, CH_4, nitrous oxide (N_2O), and sulfur hexafluoride (SF_6) and two groups of gases – HFCs and perfluorocarbons (PFCs). These GHGs are the primary GHGs emitted into the atmosphere by human activities. Water vapor is also a common GHG that regulates the earth's temperature; however, the amount of water vapor in the atmosphere can change substantially from day to day, whereas other GHG emissions remain in the atmosphere for longer periods of time. Descriptions of the most common GHGs are described below:

- **Carbon Dioxide (CO_2)** is emitted and removed from the atmosphere naturally. Animal and plant respiration involve the release of CO_2 from animals and its absorption by plants in a continuous cycle. The ocean-atmosphere exchange results in the absorption and release of CO_2 at the sea surface. CO_2 is also released from plants during wildfires. Volcanic eruptions release a small amount of CO_2 from the Earth's crust.

  Human activities that affect CO_2 in the atmosphere include burning of fossil fuels, industrial processes, and product uses. Combustion of fossil fuels used for electricity generation and transportation are the largest source of CO_2 emissions in the United States. When fossil fuels are burned, the carbon stored in them is released into the atmosphere entirely as CO_2. Emissions from industrial activities also emit CO_2, such as cement, metal, chemical production, and use of petroleum produced in plastics, solvents, and lubricants.

- **Methane (CH_4)** is emitted from human activities and natural sources. Natural sources of CH_4 include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, soils, and wildfires. Human activities that cause CH_4 releases include fossil fuel production, animal

digestive processes from farms, manure management, and waste management. CH_4 is produced from landfills as solid waste decomposes. CH_4 is a primary component of natural gas and is emitted during its production, processing, storage, transmission, distribution, and use.

- **Nitrous Oxide (N_2O)** is emitted from human sources such as agricultural soil management, animal manure management, sewage treatment, combustion of fossil fuels, and production of certain acids. N_2O is produced naturally in soil and water, especially in wet, tropical forests. The primary human-related source of N_2O is agricultural soil management due to use of synthetic nitrogen fertilizers and other techniques to boost nitrogen in soils. Combustion of fossil fuels (mobile and stationary) is the second leading source of N_2O.
- **Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs)** are entirely manmade and are mainly generated through various industrial processes. These types of gases are used in aluminum production, semiconductor manufacturing, and magnesium production and processing.
- **Sulfur Hexafluoride (SF_6)** is commonly used as an electrical insulator in high voltage electrical transmission and distribution equipment such as circuit breakers, substations, and transmission switchgear. Releases of SF_6 occur during maintenance and servicing as well as from leaks of electrical equipment.

GHGs can remain in the atmosphere long after they are emitted. The potential for a particular greenhouse gas to absorb and trap heat in the atmosphere is considered its Global Warming Potential (GWP). The reference gas for measuring GWP is CO_2, which has a GWP of one. By comparison, CH_4 has a GWP of 25, which means that one molecule of CH_4 has 25 times the effect on global warming as one molecule of CO_2. Multiplying the estimated emissions for non-CO_2 GHG by their GWP determines their CO_2 equivalent (CO_2e), which enables a project's combined global warming potential to be expressed in terms of mass CO_2 emissions. The GWPs and estimated atmospheric lifetimes of the common GHG are shown in Table 11-1.

Table 11-1 Global Warming Potential (GWP) of Common GHGs (100 Year Horizon)

GHG	GWP	GHG	GWP
Carbon Dioxide (CO_2)	1	Perfluorocarbons (PFCs)	
Methane (CH_4)	25	CF_4	6,500
Nitrous Oxide (N_2O)	298	C_2F_6	9,200
Hydrofluorocarbons (HFCs)		C_4F_{10}	7,000
HFC-23	14,800	C_6F_{14}	7,400
HFC-134a	1,430	Sulfur Hexafluoride (SF_6)	22,800
HFC-152a	140		
HCFC-22	1,700		

Source: CARB 2014
GWPs are based on the United Nations Intergovernmental Panel on Climate Change 4th Assessment Report.

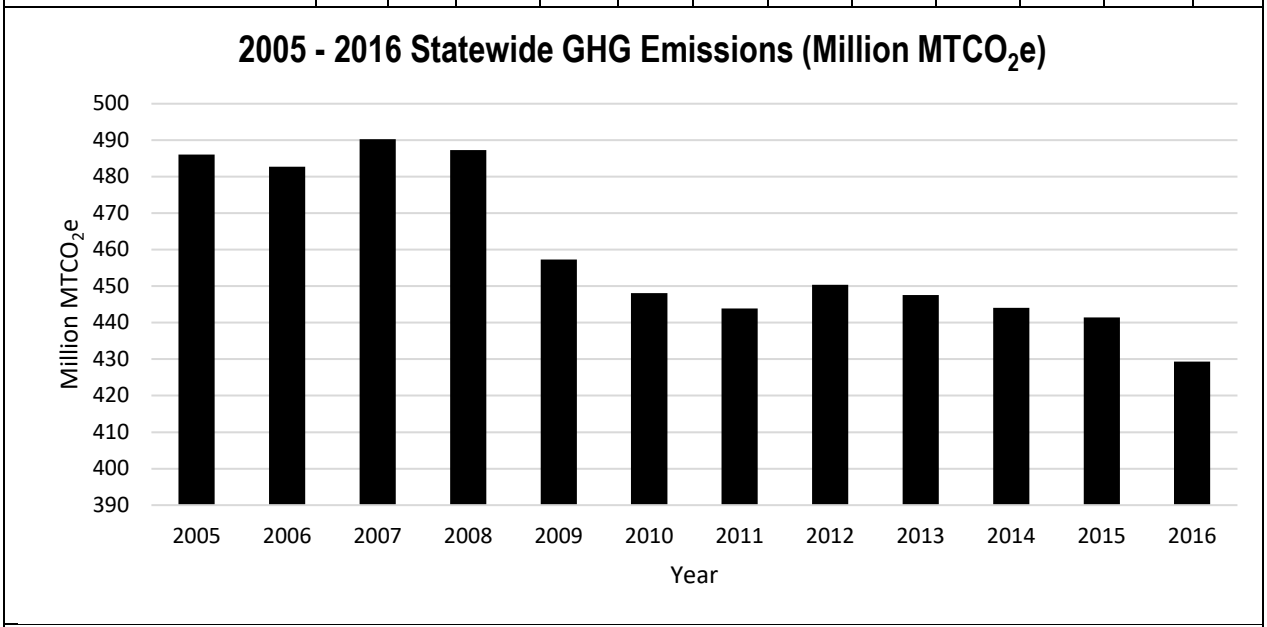
Statewide GHG Emissions

CARB prepares an annual Statewide GHG emissions inventory using Regional, State, and Federal data sources, including facility-specific emissions reports prepared pursuant to the State's Mandatory GHG Reporting Program. The Statewide GHG emissions inventory helps CARB track progress towards meeting the State's Assembly Bill (AB) 32 GHG emissions target of 431 million

metric tons of CO_2 equivalents (MTCO2e), as well as to establish and understand trends in GHG emissions[1]. Statewide GHG emissions for the 2005 to 2016 time period are shown in Table 11-2.

Table 11-2 2005-2016 Statewide GHG Emissions (in the Million MTCO2e)

Scoping Plan Sector	Year											
	'05	**'06**	**'07**	**'08**	**'09**	**'10**	**'11**	**'12**	**'13**	**'14**	**'15**	**'16**
Agriculture	34	35	36	36	33	34	35	36	35	36	34	34
Commercial/Residential	42	43	43	44	44	45	46	43	44	37	38	39
Electric Power	108	105	114	120	101	90	88	95	90	88	84	69
High GWP	9	10	11	12	12	14	15	16	17	18	19	20
Industrial	96	93	90	91	88	91	91	91	94	94	92	90
Recycling and Waste	8	8	8	8	8	8	8	8	9	9	9	9
Transportation	189	189	189	178	170	165	162	161	161	162	166	169
Total Million $MTCO_2e$[(A)]	***486***	***483***	***490***	***487***	***457***	***448***	***444***	***450***	***448***	***444***	***441***	***429***



Source: CARB, 2018a
(A) Totals may not equal due to rounding. CARB inventory uses GWPs based on the United Nations' ICC's 4th Assessment Report.

As shown in Table 11-2, statewide GHG emissions have generally decreased over the last decade, with 2016 levels (429 million MTCO2e) approximately 11 percent less than 2005 levels (486 million MTCO2e) and below the State's 2020 reduction target of 431 million MTCO2e. The transportation sector (165 million MTCO2e) accounted for more than one-third (approximately 39.4%) of the State's total GHG emissions inventory (429 million MTCO2e) in 2016.

[1] CARB approved use of 431 MMCO2e as the state's 2020 GHG emission target in May 2014. Previously, the target had been set at 427 MMCO2e.

Climate Change and California

The 2009 California Climate Adaptation Strategy prepared by the California Natural Resources Agency (CNRA) identified anticipated impacts to California due to climate change through extensive modeling efforts. General climate changes in California indicate that:

- California is likely to get hotter and drier as climate change occurs with a reduction in winter snow, particularly in the Sierra Nevada Mountain Range.
- Some reduction in precipitation is likely by the middle of the century.
- Sea levels will rise up to an estimated 55 inches.
- Extreme events such as heat waves, wildfires, droughts, and floods will increase.
- Ecological shifts of habitat and animals are already occurring and will continue to occur (CNRA 2009).

It should be noted that changes are based on the results of several models prepared under different climatic scenarios; therefore, discrepancies occur between the projections and the interpretation.

Existing Project Area GHG Emissions

The existing land uses within the Project area contribute to existing City, Regional, and Statewide GHG emissions. The Project area's existing GHG emissions, presented below in Table 11-3, were estimated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2. GHG emissions generated within the Project area primarily come from the area, energy, and mobile sources described in Section 7.1.1, Air Quality, as well as the following additional sources specific to GHG emissions:

- **Energy Use and Consumption:** Emissions generated from purchased electricity and natural gas. As estimated using CalEEMod, the existing land uses in the project area use and consume approximately 504,116 kWh of electricity per year and 934,747 kBtus of natural gas per year.
- **Solid Waste Disposal:** Emissions generated from the transport and disposal of waste generated by land uses. CalEEMod estimates approximately 67.6 tons of solid waste are generated per year by the people working and living within the Project area.
- **Water/Wastewater:** Emissions from electricity used to supply water to land uses, and treat the resulting wastewater generated. As estimated in CalEEMod, existing land uses within the Project area use approximately 11.4 million gallons of water per year.

The Project area's existing GHG emissions were estimated using default emissions assumptions provided by CalEEMod, with Project-specific modifications described in Section 7.1.1 and below:

- **Mobile Sources:** As described in Section 7.1.1, the default trip generation rates for the proposed land use types were replaced with trip generation rates contained in the Traffic Impact Study (TIS) prepared for the Project (Linscott, Law, and Greenspan 2019). According to the TIS, the existing land uses generate approximately 295 trips per weekday. CalEEMod does not estimate N_2O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted as follows:

- N_2O emissions were estimated for the Project by comparing the ratio of CO_2 and N_2O emissions for the on-road (light-duty vehicles) and off-road transportation sectors contained in the State's most recent GHG inventory (CARB 2018b, 2018c). In 2016, statewide CO_2 and N_2O emissions estimates for the on-road transportation sector (light-duty gasoline vehicles) were 115.4 and 0.005 million metric tons, respectively (N_2O emissions are therefore equal to 0.004% of CO_2 emissions for this sector). In 2016, the off-road transportation sector emitted 2.29 million metric tons of CO_2 and 0.0002 million metric tons of N_2O (N_2O emissions are therefore equal to 0.001% of CO_2 emissions for this sector).

- **Energy Use and Consumption:** In addition to natural gas usage, the existing land uses in the Project area would generate indirect GHG emissions from electricity use. Southern California Edison provides electricy service in the City of Monrovia. The CalEEMod default GHG intensity values for this electric service provider are from 2012 and do not represent existing and future reductions in GHG intensity that have been achieved under the State's Renewable Portfolio Standard (RPS, see Section 11.1.2). To account for this, CalEEMod default assumptions regarding energy use were adjusted as follows:

  - The SCE GHG intensity value was reduced based on an increase in renewable energy mix from 20% under estimated Year 2012 conditions to 33% under existing conditions (2016, the last year of data available from SCE). This adjustment reduced the estimated amount of CO_2 produced by the SCE energy mix from approximately 702 pounds/megawatt-hour (mWh) to 526 pounds/mWh.

The Project area's existing GHG emissions are summarized in Table 11-3 below.

Table 11-3 Existing GHG Emissions in the Project Area

Source	GHG Emissions (Metric Tons / Year)			
	CO_2	CH_4	N_2O	Total MTCO2e
Area	2.6	<0.00(A)	<0.00(A)	2.7
Energy(B)	190.1	<0.00(A)	<0.00(A)	190.9
Mobile	455.6	0.02	0.00	456.3
Waste	13.0	0.8	<0.00(A)	32.1
Water	38.4	0.4	<0.00(A)	49.8
Total Existing GHG(C)	699.7	1.2	0.01	731.8

Source: MIG 2019 (see Appendix C1)
Notes:
(A) "<0.0" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01, but larger than 0.000.
(B) The emissions estimated in CalEEMod account for the carbon intensity metrics provided in Southern California Edison's 2016 Corporate Responsibility and Sustainability Report (SCE 2016) and U.S. Environmental Protection Agency's eGrid2014v2 emission rates (USEPA 2017).
(C) Totals may not equal due to rounding.

Energy Setting

Energy use can affect air quality and other natural resources adversely. Energy is primarily categorized in three areas: electricity, natural gas, and fuels used for transportation. According to the U.S. Energy Information Administration (USEIA), California is the most populous state in the U.S., representing 12 percent of the total national population, has the largest economy, and is second only to Texas in total energy consumption. However, California has one of the lowest per

capita energy consumption levels in the U.S. This is a result of California's mild climate, extensive efforts to increase energy efficiency, and implementation of alternative technologies. California leads the nation in electricity generation from solar, geothermal, and biomass resources (USEIA, 2018).

Total annual energy consumption in the U.S. as of October 2018 was approximately 83.7 quadrillion British thermal units (Btu) (EIA 2019). Fossil fuels provided approximately 79% of this energy, consisting of petroleum (approximately 30 %), natural gas (approximately 33%), and coal (approximately 16%) resources. Total renewable sources accounted for approximately 12% of energy consumption, and nuclear electric power accounted for approximately 9% of the energy consumed in the U.S. In 2016, California was ranked the fourth lowest state in terms of energy use on a per capita basis (199 million Btu per person).

Electricity

Almost one-half of California's net electricity generation was from renewable resources, including hydropower, in 2017 (EIA 2019). In 2017 the California electric system used 292,039 Gigawatt hours (GWh) of electricity, of which 206,336 GWh was produced in-state (CEC 2018a). Los Angeles County consumed 67,598 GWh of electricity, about 23 percent of the state's electricity consumption (CEC, 2019a). Southern California Edison (SCE) is the utility provider for the City of Monrovia. In the 2017 fiscal year, SCE sold approximately 85,879 million kilowatt-hours (kWh) of electricity (SCE 2018a); approximately 46% of the electricity that SCE delivered to customers came from carbon-free resources, including solar energy (approximately 13%, wind energy (approximately 10%), and geothermal energy (approximately 8%)(SCE 2018b).

Based on the CalEEMod emissions estimates prepared for the Project (see Section 7.1.1 and Appendix C1), the existing development in the Project area is estimated to consume approximately 556,730 kWh of electricity per year. Based on a service population of approximately 48, this works out to approximately 11,599 kWh / service population, annually.[1]

Natural Gas

California accounts for less than one percent of total U.S. natural gas reserves and production; however, almost two-thirds of California households use natural gas for home heating (EIA 2019). In 2017, California consumed about 25,142 million therms of natural gas. Approximately 18% of natural gas was consumed by the residential sector. Los Angeles County consumed approximately 2,956 million therms of natural gas in the same year, accounting for 12% of statewide consumption. The residential sector made up approximately 38% of county wide consumption (CEC 2019b).

The Southern California Gas Company (SoCalGas) provides natural gas service to the City. SoCalGas is the principal distributor of natural gas in Southern California and provides natural gas for residential, commercial, and industrial markets. The annual natural gas sale to all markets in 2017 was approximately 5,142 million Btu (CEC 2019c).

[1] Service population is the sum of population and employment in the project area. The existing residential land uses support approximately 23 people (see Section 17.2.3) and the approximately 39,500 square feet of industrial land uses support approximately 23 jobs, based on a rate of one employee per 1,700 square feet of warehouse space in a suburban area (SCAG 2015).

Based on the CalEEMod emissions estimates prepared for the Project (see Section 7.1.1 and Appendix C1), the existing development in the Project area is estimated to consume approximately 1,020,541 kBtu per year. Based on a service population of approximately 48, this equates to approximately 21,261 kBtu / service population, annually.

Transportation

California's transportation sector consumed 79.3 million Btu of energy per capita in 2017, which ranked 32nd in the nation (EIA 2017). Most gasoline and diesel fuel sold in California for motor vehicles is refined in California to meet state-specific formulations required by CARB.

According to the Board of Equalization (BOE), statewide taxable sales figures indicate a total of 15,584 million gallons of gasoline and 3,124 million gallons of diesel fuel were sold in 2017 (CEC, 2019d; CDFTA 2018a and 2018b). Although exact estimates are not available by County, retail fuel outlet survey data indicates Santa Clara County accounted for approximately 23.4% and 9.7% of total statewide gasoline and diesel sales, respectively (CEC, 2018b).

According to CalTrans, the annual vehicle miles traveled within all jurisdiction of Los Angeles County (state highway and local roadway) is 80,773,551 (Caltrans 2017).

The TIS prepared for the Project identifies that existing land uses in the Project area generate approximately 1,107 net new trips per weekday (Linscott, Law, and Greenspan 2019). This level of trip generation was estimated by CalEEMod to produce 1,006,843 vehicle miles travelled per year (see Appendix C1).

11.1.2 Regulatory Setting

International and Federal

International Regulation and the 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 joined other countries around the world in signing the "United Nations' Framework Convention on Climate Change" agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan currently consists of more than 50 voluntary programs for member nations to adopt.

Federal Regulation and the Clean Air Act

On December 7, 2009, the U.S. EPA issued an endangerment finding that current and projected concentrations of the six Kyoto GHGs in the atmosphere (CO_2, CH_4, N_2O, SF_6, HFCs, and PFCs) threaten the public health and welfare of current and future generations. This finding came in response to the Supreme Court ruling in *Massachusetts v. EPA*, which found that GHGs are pollutants under the Federal Clean Air Act. As a result, the U.S. EPA issued its GHG Tailoring Rule in 2010, which applies to facilities that have the potential to emit more than 100,000 MTCO2e. In 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA* (No. 12-1146), finding that the U.S. EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a permit pursuant to the "Clean Air Act's Prevention of Significant Deterioration" or "Title V" operating permit programs. The U.S. EPA's Greenhouse Gas Reporting Program requires facilities that emit 25,000 MTCO2e

or more of GHG to report their GHG emissions to the U.S. EPA to inform future policy decisionmakers.

The Current Administration

President Trump and the U.S. EPA have stated their intent to halt various federal regulatory activities to reduce GHG emission. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. The timing and consequences of these types of federal decisions and potential responses from California and other states are speculative at this time.

State and Regional

Assembly Bill (AB) 32 (California Global Warming Solutions Act) and Related GHG Goals

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 establishes the caps on Statewide greenhouse gas emissions proclaimed in Executive Order S-3-05 and established the timeline for meeting State GHG reduction targets. The deadline for meeting the 2020 reduction target is December 31, 2020.

As part of AB 32, CARB determines 1990 GHG emissions levels and projected a "business-as-usual" (BAU)[1] estimate for 2020, to determine the amount of GHG emission reductions that would need to be achieved. In 2007, CARB approved a Statewide 1990 emissions level and corresponding 2020 GHG emissions limit of 427 million $MTCO_2e$ (CARB 2007). In 2008, CARB adopted its *Climate Change Scoping Plan*, which projects 2020 Statewide GHG emissions levels of 596 million $MTCO_2e$ and identifies numerous measures (i.e., mandatory rules and regulations and voluntary measures) that will achieve at least 174 million $MTCO_2e$ of GHG reductions and bring Statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

Executive Order B-30-15, 2030 Carbon Target and Adaptation, issued by Governor Brown in April 2015, set a target of reducing GHG emissions by 40 percent below 1990 levels in 2030. To achieve this ambitious target, Governor Brown identified five key goals for reducing GHG emissions in California through 2030:

- Increase renewable electricity to 50 percent.
- Double energy efficiency savings achieved in existing buildings and make heating fuels cleaner.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Reduce emissions of short-lived climate pollutants.
- Manage farms, rangelands, forests and wetlands to increasingly store carbon.

By directing State agencies to take measures consistent with their existing authority to reduce GHG emissions, Executive Order B-30-15 establishes coherence between the 2020 and 2050 GHG reduction goals set by AB 32 and seeks to align California with the scientifically established GHG emissions levels needed to limit global warming below two degrees Celsius.

To reinforce the goals established through Executive Order B-30-15, Governor Brown went on to sign Senate Bill (SB) 32 and AB 197 on September 8, 2016. SB 32 made the GHG reduction

[1] BAU is a term used to define emissions levels without considering reductions from future or existing programs or technologies.

target (to reduce GHG emissions by 40 percent below 1990 levels by 2030) a requirement, as opposed to a goal. AB 197 gives the Legislature additional authority over CARB to ensure the most successful strategies for lowering emissions are implemented, and requires CARB to, "protect the State's most impacted and disadvantaged communities …[and] consider the social costs of the emissions of greenhouse gases."

Scoping Plan. The CARB Scoping Plan is the comprehensive plan primarily directed at identifying the measures necessary to reach the GHG reduction targets stipulated in AB 32. The key elements of the 2008 Plan were to expand and strengthen energy efficiency programs, achieve a Statewide renewable energy mix of 33 percent, develop a cap-and-trade program with other partners (including seven States in the United States and four territories in Canada) in the Western Climate Initiative, establish transportation-related targets, and establish fees (CARB 2009). CARB estimated that implementation of these measures will achieve at least 174 million $MTCO_2e$ of reductions and reduce Statewide GHG emissions to 1990 levels by 2020 (CARB 2009).

In a report prepared on September 23, 2010, CARB indicated 40 percent of the reduction measures identified in the Scoping Plan had been secured (CARB 2010). Although the cap-and-trade program began on January 1, 2012 (after CARB completed a series of activities dealing with the registration process, compliance cycle, and tracking system), covered entities did not have an emissions obligation until 2013. In August 2011, the Scoping Plan was reapproved by CARB with the program's environmental documentation.

On February 10, 2014, CARB released the public draft of the "First Update to the Scoping Plan." "The First Update" built upon the 2008 Scoping Plan with new strategies and recommendations, and identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. "The First Update" defined CARB's climate change priorities over the next five years, and set the groundwork to reach post-2020 goals set forth in Executive Orders S-3-05 and B-16-12. It also highlighted California's progress toward meeting the 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. "The First Update" evaluated how to align the State's long-term GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. "The First Update" to the Scoping Plan was approved by the Board on May 22, 2014.

The second update to the scoping plan, the *2017 Climate Change Scoping Plan* update (CARB 2017c), was adopted by CARB in December 2017. The primary objective for the *2017 Climate Change Scoping Plan* is to identify the measures required to achieve the mid-term GHG reduction target for 2030 (i.e., reduce emissions by 40 percent below 1990 levels by 2030) established under Executive Order B-30-15 and SB 32. The *2017 Climate Change Scoping Plan* identifies an increased need for coordination among State, Regional, and local governments to realize the potential for GHG emissions reductions that can be gained from local land use decisions. It notes that emissions reductions targets set by more than one hundred local jurisdictions in the State could result in emissions reductions of up to 45 $MMTCO_2e$ and 83 $MMTCO_2e$ by 2020 and 2050, respectively. To achieve these goals, the 2017 Scoping Plan Update includes a recommended plan-level efficiency threshold of six metric tons or less per capita by 2030 and no more than two metric tons by 2050. The major elements of the *2017 Climate Change Scoping Plan* framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks.

- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewable Portfolio Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20 percent reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Senate Bill 375 (Sustainable Communities and Climate Protection Act)

In January 2009, California SB 375 went into effect known as the Sustainable Communities and Climate Protection Act. The objective of SB 375 is to better integrate regional planning of transportation, land use, and housing to reduce sprawl and ultimately reduce greenhouse gas emissions and other air pollutants. SB 375 tasks CARB to set GHG reduction targets for each of California's 18 regional Metropolitan Planning Organizations (MPOs). Each MPO is required to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP). The SCS is a growth strategy in combination with transportation policies that will show how the MPO will meet its GHG reduction target. If the SCS cannot meet the reduction goal, an Alternative Planning Strategy may be adopted that meets the goal through alternative development, infrastructure, and transportation measures or policies.

In August 2010, CARB released the proposed GHG reduction targets for the MPOs to be adopted in September 2010. The proposed reduction targets for the SCAG region were eight percent by year 2020 and 13 percent by year 2035. In September 2010 and February 2011, the eight percent and the 13 percent targets were adopted, respectively.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future.* The 2012 RTP/SCS included a strong commitment to reduce emissions from transportation sources to comply with SB 375. The document contained a host of improvements to the region's multimodal transportation system. These improvements included closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrated the region's ability to attain and exceed the GHG emission-reduction targets set forth by the CARB, and outlined a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands.

SCAG's Regional Council adopted an update to the 2012 RTP/SCS on April 7, 2016, the *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS). The 2016 RTP/SCS expands upon the 2012 RTP/SCS's goal of balancing future mobility and housing needs with economic, environmental, and public health goals. Included in the 2016 RTP/SCS are 13 major initiatives primarily focused around preserving and maintaining the existing transportation system, expanding and improving mass transit (with a specific emphasis on

passenger rail), decreasing reliance on vehicular modes of transportation through the expansion of pedestrian and bicycle infrastructure, and focusing new growth around transit. Through proactive land use planning and improvements to the transportation network, implementation of the 2016 RTP/SCS will result in an eight percent reduction in greenhouse gas emissions per capita by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 when compared with 2005 levels. These reductions meet or exceed the State's mandate, which require an eight percent reduction by 2020 and 13 percent by 2035.

In March 2018, CARB established new regional GHG reduction targets for SCAG and other MPOs in the state (CARB, 2018b). The new SCAG targets are an 8% reduction in per capita passenger vehicle GHG reductions by 2020 and a 19% reduction by 2035. The 2016 RTP/SCS, however, remains the approved SCS for the SCAG MPO until such time as SCAG prepares an updated SCS.

Senate Bill 350 (Clean Energy & Pollution Reduction Act)

SB 350 was signed into Law in September 2015 and establishes tiered increases to the Renewable Portfolio Standard (RPS). The Bill requires 40 percent of the State's energy supply come from renewable sources by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Assembly Bill 1493

With the passage of AB 1493 (Pavley I) in 2002, California launched an innovative and pro-active approach for dealing with GHG emissions and climate change at the State level. AB 1493 requires CARB to develop and implement regulations to reduce automobile and light truck GHG emissions. These stricter emissions standards apply to automobiles and light trucks from 2009 through 2016. Although litigation was filed challenging these regulations and the U.S. EPA initially denied California's related request for a waiver, a waiver has since been granted (CARB 2017b). In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 among light-duty vehicles. In January 2012, CARB approved the Advanced Clean Cars (ACC) program (formerly known as Pavley II) for model years 2017 through 2025. The components of the ACC program are the Low-Emission Vehicle (LEV) regulations and the Zero-Emission Vehicle (ZEV) regulation. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards.

Executive Order (EO) B-30-15, Senate Bill 32 & Assembly Bill 197 (Statewide Interim GHG Targets)

California EO B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030, and directed state agencies with jurisdiction over greenhouse gas emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the Executive Order directed CARB to update the Scoping Plan to express this 2030 target in metric tons. Assembly Bill 197 (AB 197) (September 8, 2016) and Senate Bill 32 (SB 32) (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods.

Part 11 of the Title 24 Building Standards Code is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) planning and design; (2) energy efficiency; (3) water efficiency and conservation; (4) material conservation and resource efficiency; and (5) environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC).

CALGreen contains both mandatory and voluntary measures. For non-residential land uses there are 39 mandatory measures including, but not limited to exterior light pollution reduction, wastewater reduction by 20 percent, and commissioning of projects over 10,000 square feet. Two tiers of voluntary measures apply to non-residential land uses, for a total of 36 additional elective measures.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2019 standards, adopted May 9, 2018, will go into effect on January 1, 2020 and improve upon existing standards, focusing on three key areas: proposing new requirements for installation of solar photovoltaics for newly constructed low-rise residential buildings; updating current ventilation and Indoor Air Quality (IAQ) requirements, and extending Title 24 Part 6 to apply to healthcare facilities. The 2019 standards also propose several smaller improvements in energy efficiency.

Biological Diversity v. California Department of Fish and Wildlife

In its decision in *Center for Biological Diversity v. California Dep't of Fish and Wildlife* (*Newhall*) 62 Cal.4th 204 (2015), the California Supreme Court set forth several options that lead agencies may consider for evaluating the cumulative significance of a Project's GHG emissions:

1. A calculation of emissions reductions compared to a "business as usual" (BAU) scenario based upon the emissions reductions in CARB's Scoping Plan, including examination of the data to determine what level of reduction from BAU a new land use development at the proposed location must contribute in order to comply with statewide goals.

2. A lead agency might assess consistency with AB 32's goals by looking to compliance with regulatory programs designed to reduce GHG emissions from particular activities.

3. Use of geographically specific GHG emission reduction plans to provide a basis for tiering and streamlining of project-level CEQA analysis.

4. A lead agency may rely on existing numerical thresholds of significance for GHG emissions, though use of such thresholds is not required.

There is no applicable existing numerical threshold of significance for GHG emissions and the *Newhall* decision specifically found that use of a numerical threshold is not required.

Local

The City of Monrovia, along with Southern California Edison and Intergy Corporation, has implemented an Energy Action Plan that contains goals and specific actions to ensure that sufficient, dependable, and reasonably-priced electrical power and energy supplies are achieved and provided through policies, strategies, and actions that are cost-effective and environmentally sound for the city's consumers and taxpayers. The Energy Action Plan looks at self-generation and demand reduction strategies that can further offset the energy, water, and transportation needs for the city of Monrovia, including the use of renewable energy sources. Appendix A to the Energy Action Plan includes the City's environmental accords or actions; however, none of these actions are directly applicable to individual development projects. Rather, Appendix A to the Energy Action Plan primarily lists actions that apply to City equipment, electricity consumption, and GHG emissions sources, or which would be implemented on a City-wide basis. However, this plan is was never formally adopted by the City Council.

11.2 ENVIRONMENTAL EFFECTS

This section describes potential impacts related to global climate change that could result from GHG emissions from the Project, as well as impacts on energy consumption.

11.2.1 Significance Criteria

Based on Appendices F and G of the CEQA Guidelines, a significant GHG or Energy impact would occur if implementation of the Project would:

(a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
(b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

In addition, based on CEQA Guidelines Appendix G: Items VI (a) through (b), implementation of Project would have a significant impact related to energy consumption if it would:

(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
(b) Conflict with or obstruct a state or local plan for renewable or energy efficiency.

In order to provide guidance to local lead agencies on determining the significance of GHG emissions in their CEQA documents, the SCAQMD convened the first GHG Significance Threshold Working Group (Working Group) meeting on April 30, 2008. To date, the Working Group has convened a total of 15 times, with the last meeting taking place on September 28, 2010. Based on the last Working Group meeting, the SCAQMD identified an interim, tiered approach for evaluating GHG emissions intent on capturing 90 percent of development projects

where the SCAQMD is not the lead agency. The following describes the basic structure of the SCAQMD's tiered, interim GHG significance thresholds:

A. Tier 1 consists of evaluating whether or not the project qualifies for applicable CEQA exemptions.

B. Tier 2 consists of determining whether or not a project is consistent with a greenhouse gas reduction plan. If a project is consistent with a greenhouse gas reduction plan, it would not have a significant impact.

C. Tier 3 consists of using screening values at the discretion of the Lead Agency; however, the Lead Agency should be consistent for all projects within its jurisdiction. The following thresholds were proposed for consideration:

   a. 3,000 MTCO2e/yr for all land use types; or

   b. 3,500 MTCO2e/yr for residential; 1,400 MTCO2e/yr for commercial; 3,000 MTCO2e/yr for mixed use projects.

D. Tier 4 has three options for projects that exceed the screening values identified in Tier 3:

   a. Option 1: Reduce emissions from business-as-usual by a certain percentage (currently undefined)

   b. Option 2: Early implementation of applicable AB 32 Scoping Measures

   c. Option 3: For plan-level analyses, analyze a project's emissions against an efficiency value of 6.6 MTCO2e/yr/service population by 2020 and 4.1 MTCO2e/yr/service population by 2035. For project-level analyses, analyze a project's emissions against an efficiency value of 4.8 and 3.0 MTCO2e/yr/service population for the 2020 and 2035 calendar years, respectively.

11.2.2 Analysis Methodology

Tier 3 was used as significance criteria in this analysis to determine if GHG emissions under the Project would have a significant impact on the environment.

11.2.3 Environmental Impacts

IMPACT GHG-1 GENERATION OF GREENHOUSE GAS EMISSIONS

Construction Emissions. Construction activities would generate GHG emissions primarily from equipment fuel combustion as well as worker, vendor, and haul trips to and from the Project area during demolition, site preparation, grading, building construction, paving, and architectural coating activities. Construction activities would cease to emit GHG upon completion, unlike operational emissions that would be continuous year after year until the Project is decommissioned. Accordingly, the SCAQMD recommends amortizing construction GHG emissions over a 30-year period. This normalizes construction emissions so that they can be grouped with operational emissions and compared to appropriate thresholds, plans, etc. GHG emissions from construction of the Project were estimated using CalEEMod, Version 2016.3.2, based on the anticipated construction schedule and construction activities described in Chapter 7. The estimated construction GHG emissions resulting from the Project are presented below in Table 11-4.

Table 11-4 Estimated Project Construction GHG Emissions

Construction Year	GHG Emissions (Metric Tons / Year)			
	CO_2	CH_4	N_2O	Total MTCO2e
2019	186.4	0.02	0.00	186.9
2020	640.2	0.06	0.00	641.7
Total	826.6	0.1	0.00	828.6
Total Amortized Emissions(A)	27.6	<0.00(B)	0.00	27.6

Source: MIG 2019 (see Appendix C1).

(A) Emissions amortized over 30 year-period for inclusion in total GHG emissions.

(B) "<0.0" does not indicate the emissions are less than or equal to 0; rather, it indicates the emission is smaller than 0.01, but larger than 0.000.

Operational Emissions. Once operational, the Project would result in continuous GHG emissions from mobile, energy, and area sources. Mobile sources would result primarily in emissions of CO_2, with emissions of CH_4 and NO_2 also occurring in minor amounts. In addition to mobile sources, GHG emissions would also be generated from natural gas usage, electricity use, water conveyance and use, wastewater treatment, and solid waste disposal. Natural gas use would result in the emission of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use associated with both the physical usage of the development, as well as the energy needed to transport water/wastewater, would result in the production of GHGs if the electricity is generated through non-renewable sources (i.e., combustion of fossil fuels). Solid waste generated by the proposed Project, would contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy when transporting and managing the waste. In addition, landfilling, the most common waste management practice, results in the release of CH_4 from the decomposition of organic materials.

Default energy assumptions were reduced to account for the recent adoption of the 2019 energy efficiency code, and solid waste was assumed to be diverted at a rate of 75% pursuant to AB 341.

Potential operational GHG emissions resulting from the Project were modeled using CalEEMod, Version 2016.3.2. Project emissions were modeled based on the Project's first full year of operation (2022), using default data assumptions provided by CalEEMod, with Project-specific modifications listed in Section 7.2.3 (Impact AIR-2) and described below:

- **Mobile Sources.** As described in Section 11.1.1, CalEEMod does not estimate N_2O emissions from on-road vehicle travel or off-road construction sources. To account for this, CalEEMod emissions estimates were adjusted to include N_2O emissions (see Section 11.1.1).
- **Energy Use and Consumption:** As described in Section 11.1.1, CalEEMod default GHG intensity values for SCE are out of date and do not include reductions in GHG intensity that would be achieved under the State's Renewable Portfolio Standard (RPS, see Section 11.1.2). To account for this, the CalEEMod default SCE GHG intensity value was reduced based on an increase in renewable energy mix from 20% under estimated Year 2012 conditions to 41.1% under Year 2022 conditions. This adjustment reduced the estimated amount of CO_2 produced by the SCE energy mix from approximately 702 pounds/megawatt-hour (mWh) to 422 pounds/mWh.

The total GHG emissions associated with the Project are presented below in Table 11-5. To account for all potential GHG emissions generated through construction and operational activities, the amortized construction emissions calculated in Table 11-4 have been added to Project operational GHG emissions estimate.

Table 11-5 Estimated Project Operational GHG Emissions

Emission Source	GHG Emissions ($MTCO_2e$ / Year)		
	Existing[(A)]	Proposed	Net Change
Area	2.70	67.2	+64.5
Energy	190.9	664.5	+473.6
Mobile	456.3	1,609.4	+1,153.1
Stationary	–	0.3	+0.3
Waste	32.1	18.4	-13.7
Water	49.8	106.2	+56.4
Amortized Construction	–	27.6	+27.6
Total[(B)]	731.8	2,466.1	+1,761.8
SCAQMD Tier 3 Screening Threshold	–	–	3,000
SCAQMD Tier 3 Threshold Exceeded?	–	–	No

Source: MIG, 2019 (see Appendix C1).
Notes:
(A) See Table 11-3 for existing GHG emissions in the Project area.
(B) Totals may not equal due to rounding.

As shown in Table 11-5, construction and operation of the Project would result in a net increase in GHG emissions equal to approximately 1,762 $MTCO_2e$ per year. This net emissions increase is below the SCAQMD latest interim Tier 3 “bright-line” guidance and recommendation for GHG significance thresholds for mixed-use projects (3,000 $MTCO_2e$).

The SCAQMD’s interim 3,000 $MTCO_2e$ threshold was developed in 2010, and is intended to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation in place at the time to reduce statewide GHG emissions (e.g., AB 32, SB 375, etc.).

Since the Project would be operational in 2022 (i.e., after 2020), it may not be necessarily appropriate to evaluate the significance of the Project’s GHG emissions against the SCAQMD’s 3,000 $MTCO_2e$ threshold, although this threshold does provide useful context for the City in determining the significance of a project’s GHG emissions. For example, presuming a 40% reduction in the SCAQMD’s existing CEQA thresholds is necessary to achieve the State’s 2030 GHG reduction goal (which is a 40% reduction below 1990 GHG emissions levels), a threshold of 2,760 $MTCO_2e$ may be more appropriate for use in evaluating the project’s long-term emissions in Year 2022[1].

[1] This estimate reflects a 40% reduction from the SCAQMD’s existing 3,000 $MTCO_2e$ threshold, calculated as: 3,000-(2*((3000-(3,000*0.6))/10))=2,760.

As shown in Table 11-5, the Project's GHG emissions would also be below this adjusted threshold[1]. Therefore, the Project would not generate GHG emissions that have the potential to exceed SCAQMD thresholds.

The SCAQMD's interim thresholds, in general, establish a performance standard and GHG reduction objective that will ultimately contribute to reducing GHG emissions and stabilize climate change consistent with the long term goal contained in Executive Order S-3-05 (to reduce GHG emissions to 80 percent below 1990 levels by 2050). Thus, projects that meet the SCAQMD's current interim thresholds would not interfere with the state's 2030 and 2050 GHG reduction targets.

Currently, estimated GHG reductions necessary to achieve current state GHG reduction goas are addressed via regulatory requirements at the state level, which the Project would be required to comply with. As shown in Table 11-5, vehicle trips account for the majority of the Project's increase in GHG emissions. GHG emissions from vehicles would continue to be reduced over time as individual vehicles are retired and replaced with more efficient vehicles and electric or other alternatively fueled, low or zero emission vehicles. The Project would support this by providing 3% of the total on-site parking provided to clean air vehicles, including hybrids, EVs, and PHEVs; therefore, 40 parking spaces are provided for clean air vehicles.

Mitigation Measures

No mitigation measures are required.

IMPACT GHG-2 PLAN CONSISTENCY

CARB Scoping Plan

As discussed under Section 11.1.2, the *2017 Climate Change Scoping Plan* is CARB's primary document used to ensure state GHG reduction goals are met. The *2017 Climate Change Scoping Plan's* primary objective is to identify the measures needed to achieve the 2030 reduction target established under Executive Order B-30-15 and SB 32. The major elements of the plan are generally geared toward actions either CARB or other state entities will pursue, such as, but not limited to:

- Implementing the LCFS, with an increased stringency (18 percent by 2030);
- Implementation of SB 350, which expands the RPS to 50 percent and doubles energy efficiency savings; and
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing CH_4 and hydrocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by the year 2030.

Although most of these measures would be implemented at the State level, the GHG reductions achieved by these state measures would be realized at the local level. For example, regardless of actions taken by the City, emissions generated through gasoline combustion in motor vehicles within Monrovia would produce less GHG in 2030 than they do now.

[1] The City is not adopting nor proposing to use 2,760 $MTCO_2e$ per year as a CEQA GHG threshold for general use; rather, it is only intended as important information and context for the GHG evaluation contained in this EIR.

In addition to State measures, Appendix B to CARB's *2017 Climate Change Scoping Plan* identifies potential actions that could be undertaken at a local level to support the State's climate goals. This appendix is organized into two categories Category A applies to code and broad planning documents and is not applicable to a Specific Plan. Category B includes measures that could be considered for individual projects. The Project is consistent with many of the suggested measures in Appendix B through required compliance with SCAQMD rules and the California Green Building Standards Code. The proposed Project, therefore, would not conflict with the goals of the *2017 Climate Change Scoping Plan.*

SCAG 2016 RTP/SCS

As described previously, the *2016 RTP/SCS* is a growth strategy and transportation plan whose primary intent is to demonstrate how the SCAG region will meet its GHG reduction target through the year 2040. Many of the measures included in the RTP/SCS are focused on: the expansion of, and access to, mass transit (e.g., light rail, commuter rail, bus rapid transit, etc.); planning growth around livable corridors; and locating new housing and job growth in high quality transit areas.

The Project support these goals, because it (1) results in and encourages in-fill development and/or involves the revitalization of already developed areas, (2) has existing, supporting transit infrastructure and enhances the use of this infrastructure (the Monrovia Metro Station is a 0.1-mile walk to the south of the Project area), and (3) encourages the use of non-vehicular modes of transportation.

Under California law, SCAG is required to implement strategies that reduce per capita GHG emissions in the region by 8% by 2020—compared with 2005 levels—and by 13 percent by 2035 (SCAG 2016). Although the existing emissions in the Project area have not been estimated for Year 2005, it is very likely that 2005 GHG emissions levels would be higher than the Year 2019 existing conditions presented in Table 11-3. Additionally, as described in more detail in Chapter 19, Transportation and Circulation, the proximity of Monrovia Metro Station to the Project area is estimated to reduce project-related trips by 25%.

Since implementation of the Project would result in transit-oriented development, support the use of mass transit, and result in vehicle trips that are approximately 25% lower than standard values due to the proximity of the Monrovia Metro Station, the Project would be consistent with the SCAG 2016 RTP/SCS.

Energy Action Plan

The City of Monrovia has an *Energy Action Plan* that seeks to decrease energy use and dependence. The plan suggests the need for citizen involvement and focuses heavily on actionable items related to managing City facilities and vehicles. Additionally, the City requires consistency with energy saving strategies (such as Title 24 which requires energy efficient practices). The Project is consistent with Title 24 building codes, and therefore is consistent with the goals of the Energy Action Plan.

Mitigation Measures

No mitigation measures are required.

IMPACT GHG-3 ENERGY CONSUMPTION

Short-term energy demand would result from construction activities occurring as a result of buildout of the Project. Short-term demand would include energy needed to power worker and vendor vehicle trips as well as construction equipment. Long-term energy demand would result from operation of businesses and land uses within the Project area, which would include activities such as lighting, heating and cooling of structures, etc. Operational energy demands would typically result from vehicle trips, electricity and natural gas usage, and water and wastewater conveyance.

As estimated in the TIS (see Appendix J) and the emissions modeling conducted using CalEEMod defaults, buildout of the Project is anticipated to result in an increase in trip generation by approximately 1,107 trips per weekday, natural gas consumption by 3,533,135 kBTU annually, and electricity consumption by 1,738,379 kWh annually. Although trip generation and energy consumption would increase under implementation of the proposed Project, consumption rates per service population would decrease. Buildout of the Project would result in a trip generation decrease from 6.15 weekday trips/service population to 2.14 weekday trips/service population. Natural gas consumption would also reduce from 10,502 kBtu/service population/year to 6,213 kBtu/service population/year, and annual electricity consumption would decrease from 19,473 kWh/service population/year to 3,620 kWh/service population/year.[1]

Although implementation of the Project may increase overall VMT through additional trips and energy and natural gas usage compared to current conditions, increased density would provide for more efficient use of resources within the City, thus ensuring that the Project would not result in the wasteful or inefficient use of energy resources. This would be a less than significant impact.

IMPACT GHG-4 CONFLICT WITH RENEWABLE ENERGY PLANS

As discussed under Impact GHG-2, the Project would be consistent with CARB's Scoping Plan and SCAG's RTP/SCS, which incorporate goals for use of renewable energy and efficient energy use as well as for reducing GHG emissions. The Project also would not interfere with the installation of any renewable energy system. Therefore, the Project would be consistent with applicable State and local plans for promoting use of renewable energy and energy efficiency. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

11.2.4 Impact Conclusions

The Project would not result in greenhouse gas emissions in excess of thresholds of significance, would meet SCAQMD's 2035 project-level target of 3.0 $MTCO_2e$/yr/service population, and would not conflict with the CARB Scoping Plan, SCAG 2016 RTP/SCS, or City's Energy Action Plan. In addition, the Project would not result in wasteful or inefficient use of energy. Therefore, impacts on global climate change due to greenhouse gas emissions and impacts on energy consumption would be less than significant.

[1] Calculations based on a service population of 634. Approximately 611 of the service population would be residents (see Section 17.2.3) and12,500 square feet for retail would result in employment of 23 people, based on a rate of one employee per 550 square feet of retail (GBC 2008).

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
AB	Assembly Bill
ACC	Advanced Clean Cars
AQ	air quality
AQMP	Air Quality Management Plan
BAU	Business As Usual
BOE	Board of Equalization
Btu	British Thermal Unit
CA	California
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CAT	Climate Action Team
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CNRA	California Natural Resources Agency
CO_2	carbon dioxide
CO_2e	Carbon Dioxide Equivalents
EE	energy efficiency
EV	Electric vehicle
F	Fahrenheit
GHG	Greenhouse Gas(es)
GWh	Gigawatt-hours
GWP	Global Warming Potential
H_2S	hydrogen sulfide
HFCs	hydrofluorocarbons
HR	hour
KBtu	Thousand British Thermal Units
KSF	thousand square feet
KWH	kilowatt-hours
LCFS	Low Carbon Fuel Standard
LEV	Low Emission Vehicle
MPO	Metropolitan Planning Organization
$MTCO_2e$	Metric Tons of Carbon Dioxide Equivalents
MWhrs	megawatt-hours
No.	number
NOAA	National Oceanic and Atmospheric Administration
N_2O	nitrous dioxide
PFCs	perfluorocarbons
PHEV	Plug-in Hybric Electric Vehicle
ppm	parts per million
PRC	Public Resources Code
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
SB	Senate Bill

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
SCE	Southern California Edison
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SF_6	sulfur hexafluoride
SoCalGas	Southern California Gas Company
U.S.	United States
U.S. EIA	United States Energy Information Administration
U.S. EPA	United States Environmental Protection Agency
V.	Version
VMT	Vehicle Miles Traveled
ZEV	Zero Emission Vehicle
Yr	year
§	section
° F	degrees Fahrenheit

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12. HAZARDS AND HAZARDOUS MATERIALS

This EIR Chapter describes hazards and hazardous materials in the Project area. The Chapter includes an evaluation of potential impacts resulting from Project implementation and discusses recommended mitigation measures as needed to reduce potentially significant impacts.

12.1 SETTING

The environmental and regulatory setting of the Project area with respect to hazards and hazardous materials is described based on local, State and Federal regulations along with information from in the Monrovia General Plan's Safety Element (City of Monrovia 2002).

In addition, a Phase I Environmental Site Assessment (ESA) was completed for two parcels within the project area located at 202 and 220 West Evergreen Avenue (Kleinfelder 2017). PIC Environmental Services (PIC) (PIC 2019), then prepared a Phase I ESA for the entire Project area as well. PIC's 2019 Phase I ESA contains a previous Phase I ESA prepared by Kleinfelder in 2016 (Kleinfelder 2016) covering the two industrial properties at 1610 South Magnolia Avenue and 1551 South Primrose Avenue within the proposed Project area. Finally, a Phase II ESA (i.e., subsurface investigation) was completed for 1610 South Magnolia Avenue and 1551 South Primrose Avenue (Kleinfelder 2019a), as well as a follow-on Human Health Risk Assessment (HHRA) Report for the two properties (Kleinfelder 2019b).

Each hazardous waste investigation report is contained in Appendix G of this EIR. Pursuant to Section 15150 of the CEQA Guidelines, these documents are incorporated herein by reference into the EIR.

12.1.1 Environmental Setting

History of Uses within the Project Area

Historically, the Project area was used for agricultural purposes. The first development with residential and industrial buildings occurred in the early 1950s. Historical and current usage includes residential on the northern half of the Project area, and industrial uses on the southern half of the Project area including manufacturing (currently slot machines in the southwest portion, and refrigeration parts and ceramics in the southeast portion).

Hazardous Materials and Hazardous Waste

Industrial uses in Monrovia generally consist of light manufacturing and manufacturing uses. Some industrial businesses use hazardous materials for manufacturing processes and can generate large quantities of hazardous waste. The Environmental Protection Agency (U.S. EPA) defines hazardous materials as materials that may be dangerous or potentially harmful to human health, or the environment. Hazardous materials are often by-products of manufacturing uses or waste from commercial products such as cleaning fluids or pesticides. The U.S. EPA and other federal, state, and county regulatory agencies closely monitor manufacturing and commercial uses, and the disposition of hazardous materials. Hazardous materials require special methods of storage and treatment that common sewage and drainage systems are not capable of handling. Improper disposal can harm the environment and people who work in the waste management

industry. Commercial businesses that typically handle hazardous materials and generate small quantities of hazardous waste include dry cleaners, auto repair shops, medical facilities, and photo processing centers. Generators of large quantities of hazardous waste include chemical manufacturers, large electroplating facilities, and petroleum refineries.

A Phase I Environmental Site Assessment (ESA) is the initial investigation phase of a process established by the American Society for Testing and Materials (ASTM) Standards (ASTM E 1527-13), cited by the Superfund Clean-Up Act of 1998, as adequate due diligence by new purchasers of properties or their lenders prior to site development (see Section 12.1.2 below). Phase I ESAs are completed prior to property development by private parties to establish that the buyer has exercised due diligence in purchasing the site. If a Phase I ESA indicates evidence of site contamination, a Phase II ESA is typically required prior to site development to further investigate the potential for contamination of that project's site. A Phase II ESA typically involves collection of samples of soil, groundwater, air, and/or building materials to measure and analyze quantities of various contaminants. The most frequent substances tested for include petroleum hydrocarbons, heavy metals, pesticides, solvents, asbestos, lead-based paint, and mold. Appropriate cleanup levels for each contaminant are determined by lead jurisdictional agencies as described in Section 12.1.2 below.

Phase I Environmental Site Assessment

In 2017, a Phase I ESA was performed by Kleinfelder on 202 and 220 West Evergreen Avenue, within the northern portion of the Project site, for a previous owner of those properties, due to past agricultural use of the properties. In summary, Kleinfelder's Phase I ESA did not identify any potential release of hazardous substances or recognized environmental conditions (RECs) pursuant to ASTM E 1527-13. Because the two properties were redeveloped for residential purposes in the early-1950s, the potential for shallow soil impacts from historical agricultural use was considered low. However, based on the construction date of the residential buildings, Kleinfelder found the potential for existence of asbestos containing material (ACM) and lead based paint (LBP) associated with the residential buildings. The presence of asbestos and lead is not considered a REC pursuant to the ASTM Standard, however.

In 2016, Kleinfelder also performed a Phase I ESA for the two industrial properties at 1610 South Magnolia Avenue and 1551 South Primrose Avenue comprising the southern half of the current proposed Project area (see Kleinfelder 2016 in PIC 2019). In the Kleinfelder (2016) report, they identify potential soil and soil vapor impacts beneath the two properties as RECs due to historical and/or current industrial uses at both properties.

The property at 1610 South Magnolia Avenue is currently occupied by Gamblit Gaming, where slot machines are built; only small quantities of paint are utilized under current operations. However, the property at 1610 South Magnolia Avenue historically was occupied by other industrial uses where hazardous materials and petroleum products could have been used and disposed of (Kleinfelder 2016). Specifically, historically, a 9,000-gallon aboveground cryogenic vessel was present just outside of the northeastern corner of the building and was replaced with a 6,000-gallon vessel in 1989 (Kleinfelder 2016).

The property at 1551 South Primrose Avenue is currently occupied by Duracold Refrigeration, a company that manufactures walk-in cooler and freezer panels. Chemicals used at this facility include 55-gallon drums of contact adhesive foam and release agent, 5-gallon buckets of hydraulic oil, and aboveground vessels for nitrogen and argon gas. Operations at this facility appeared in good condition, with no evidence of RECs associated with current site usage

(Kleinfelder 2016). However, the property at 1551 South Primrose Avenue historically was occupied by other industrial uses where hazardous materials and petroleum products could have been used and disposed of (Kleinfelder 2016). Specifically, the property was occupied previously by a ceramic plant facility in the 1960s. A spray room, cooling tower, and ammonia dissociater were permitted in the 1960s. In addition, in 1961, a permit was issued to install an interceptor with two tanks on the west side of the original building, which was permitted to tie into the onsite septic tank. The property owner has advised the City that the septic tank was subsequently removed when the building was connected to the City's sewer system and a building addition was installed over the former septic tank/interceptor location. However, the City's files do not contain a permit authorizing the removal of the septic tank or any document confirming removal of the septic tank.

In the 2016 Phase I ESA, Kleinfelder evaluated the potential for offsite contamination of the properties at 1610 South Magnolia Avenue and 1551 South Primrose Avenue. Specifically, Kleinfelder evaluated three potential sources of offsite contamination:

- San Gabriel Valley contaminated groundwater plume;
- Voluntary cleanup of hazardous waste at 1622 South Magnolia Avenue; and
- 204 West Pomona Avenue which was historically listed as a Small Quantity Generator of hazardous waste.

Portions of the San Gabriel Valley are underlain by groundwater contaminated with volatile organic compounds (VOCs) including trichloroethene (TCE) and tetrachloroethene (PCE) over two miles to the east-southeast of the Project site (Kleinfelder 2016). Kleinfelder reviewed a January 2014 progress report by U.S. EPA on the progress of the cleanup of this contaminated groundwater plume and concludes that the groundwater plume does not appear underneath the properties at 1610 South Magnolia Avenue and 1551 South Primrose Avenue or in the immediate vicinity of the properties (Kleinfelder 2016). Kleinfelder notes that the Department of Toxic Substances Control (DTSC) has signed off on cleanup of 1622 South Magnolia Avenue, and that there is no indication of a release at 204 West Pomona Avenue according to database records. Therefore, Kleinfelder does not identify any RECs associated with offsite facilities (Kleinfelder 2016).

Phase II Environmental Site Assessment

In response to the Phase I ESA completed in 2016 by Kleinfelder, Kleinfelder conducted a Limited Phase II Investigation at 1610 South Magnolia Avenue and 1551 South Primrose Avenue (Kleinfelder 2019a). Soil samples were collected in eight locations at 2.5, 5, and 9 feet below ground surface (bgs) and analyzed for total petroleum hydrocarbons (TPH), VOCs, semi-volatile organic compounds (SVOCs), and metals. Soil vapor samples were collected at each of the 8 locations at 5 feet bgs and analyzed for TPH and VOCs. Sample locations and results are shown in Kleinfelder (2019a).

TPH was detected in one soil sampling location above Practical Quantitation Limits (PQL)[1] at 2.5 and 9 feet bgs (locations B2-2.5 and B2-9). PCE and TCE were detected above PQLs at one soil sampling location at 2.5 feet bgs; TCE was also detected above its PQL at 5 feet bgs (B6-2.5, B6-5). Metals were detected above PQLs at one soil sampling location at 2.5 feet bgs as well (B6-2.5).

[1] Practical quantitation limit (PQL) means the minimum concentration of an analyte (substance) that can be measured with a high degree of confidence that the analyte is present at or above that concentration.

TPH was detected above PQLs in soil vapor in all samples, except at B-1-5. Carbon tetrachloride was detected above its PQL in four out of the eight locations; the maximum concentration detected was 540 micrograms per cubic meter (µg/m3) at B-7-5. PCE was detected above its PQL at all locations, with a maximum concentration of 6,300 µg/m3 at B-5-5. TCE was detected above its PQL at 5 locations; a maximum concentration of 400 µg/m3 was detected at B-7-5. Toluene was detected at B-6-5 at 53 µg/m3, and Freon 113 (1,1,2-trichlorotrifluoroethane) was detected in 7 of 8 sample locations with a maximum of 1,100 µg/m3 at B-7-5.

Human Health Risk Assessment

Because certain contaminant concentrations in soil vapor exceeded risk screening levels established by the Department of Toxic Substances Control (DTSC) and U.S. EPA, the Phase II ESA recommended completion of a Human Health Risk Assessment (Kleinfelder 2019a). Therefore, a Human Health Risk Assessment (HHRA) was then prepared to evaluate potential risk to potential future residents on the property as well as to construction workers (Kleinfelder 2019b). Results of the HHRA indicate that there would be no significant risk to construction workers. However, results of the HHRA conclude that TCE and carbon tetrachloride pose a significant risk to future residents without remedial action. The HHRA noted the highest concentrations of the chemicals of concern were present beneath the eastern portion of the lower half of the Site, though elevated concentrations were also measured beneath the western portion of the lower half of the Site. As a result, the HHRA recommended the installation of a vapor barrier designed by a professional engineer to prevent vapor intrusion as mitigation of vapor intrusion hazards.

Follow-On Phase I Environmental Site Assessment)

In January 2019, PIC prepared a follow-on Phase I ESA specifically for the entire Plan area. PIC concurred with the recommendations for vapor barriers by the Kleinfelder in their 2019 HHRA. PIC, however, did not identify any RECs associated with the Project site (PIC 2019) and concludes that the elevated concentrations of VOCs found in soil and soil gas samples during the Kleinfelder Phase II ESA likely resulted from volatilization of contaminants from a groundwater plume contaminated by offsite sources.

PIC cites the appendix containing a recent EDR report prepared for the 2019 Phase I ESA as evidence for this statement but does not provide specific evidence for or against the hypothesis that the source of soil vapor contamination is from a contaminated groundwater plume. Moreover, groundwater was recently not detected during the geotechnical investigation at the Project site in borings up to 100 feet below the ground surface and historically, the highest groundwater level in the area has been detected at approximately 150 feet beneath the ground surface (LGC 2018) (Chapter 10, Geology and Soils). Kleinfelder (2016) makes the same observations.

Queries of the EnviroStor and Geotracker databases for this Project (DTSC 2018, SWRCB 2018) corroborate the records search in each Phase I ESA as well.

Emergency Response and Wildland Fires

Please see Chapter 18.0, Public Services, for the discussion of the City of Monrovia's emergency response program and wildland fire response capabilities, led by Monrovia Fire and Rescue.

Airport Hazards

The City of Monrovia is not within the sphere of influence or Airport Planning Area of any airports. The closest commercial airport, Ontario International, is approximately 24 miles east from the Plan area. A single-runway general aviation airport, San Gabriel Valley Airport (formerly El Monte Airport) is the closest airport and is approximately 3.7 miles southwest from the Project area.

12.1.2 Regulatory Setting

Federal

The main Federal agencies that regulate hazardous materials include the U.S. Environmental Protection Agency (U.S. EPA) and Occupational Safety and Health Administration (OSHA) and are described below.

U.S. Environmental Protection Agency (U.S. EPA)

The U.S. EPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to States and local governments the responsibility for issuing permits and monitoring and enforcing compliance. U.S. EPA regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with OSHA and California Occupational Safety and Health Administration [CalOSHA], see below); and is responsible for integrating the Federal Clean Water Act and Clean Air Act into California legislation.

Federal Occupational Safety and Health Administration (OSHA)

OSHA establishes and enforces Federal regulations related to health and safety of workers exposed to toxic and hazardous materials. OSHA also sets health and safety guidelines for construction activities and manufacturing facility operations.

The following Federal laws and guidelines govern hazardous waste management and remediation in the Project area:

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Superfund Amendments and Reauthorization Act Title III (SARA)

CERCLA and SARA are described in more detail below. In addition, the following Federal laws and guidelines govern hazardous materials storage and handling in the Project area, although proposed uses under the Project would not result in the utilization of a large amount of hazardous materials.

- Resource Conservation and Recovery Act (RCRA)
- Toxic Substances Control Act (TSCA)
- Occupational Safety and Health Act

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 U.S.C. Chapter 103)

Section 9603(a) of CERCLA requires immediate notification of all appropriate government

agencies by any person in charge of an onshore facility of any knowledge of any release of a hazardous substance at levels exceeding prescribed volumetric thresholds (42 U.S.C. 9603[a]).

The President of the United States delegates enforcement authority of CERCLA to the U.S. Environmental Protection Agency (U.S. EPA) as the lead responsible Federal agency under CERCLA. The U.S. EPA can then delegate to State authorities to enforce CERCLA. In California, U.S. EPA can delegate authority to the California Environmental Protection Agency's DTSC (for cases involving soil or soil vapor contamination for example). Further, DTSC can then delegate authority to enforce CERCLA to local agencies, such as the Los Angeles County Fire Department's Health Hazardous Materials Division's Site Mitigation Unit, but only through Local Agency Oversight Agreements with those agencies.

Whenever any hazardous substance is released or there is a substantial threat of such a release into the environment at levels exceeding prescribed volumetric thresholds, or there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare, the responsible government agency is authorized to act to remove or arrange for the removal of the hazardous substance, pollutant, or contaminant at any time (42 U.S.C. 9604).

The owner of the facility, or person who owned or operated the facility at the time of the release, is liable to pay for all costs associated with removal or remediation of the contamination (42 U.S.C. 9607(a)). "Innocent landowners", "contiguous landowners", or "bonafide prospective purchasers" of contaminated property (as defined by CERCLA), may not be liable to pay for costs associated with removal or remediation of the contamination if they follow certain procedures in CERCLA. Specifically, "innocent landowners", "contiguous landowners", or "bonafide prospective purchasers" must make "All Appropriate Inquiries" (or AAI) into a property's environmental conditions prior to purchase of a property in order to obtain protection from liability of past contamination under CERCLA. "Innocent landowners", "contiguous landowners", or "bonafide prospective purchasers" however, are still required to provide all legally required notices with respect to discovery of any hazardous substances at a facility (42 U.S.C 9607[q][1][A][vii] (i.e., notify the appropriate government agencies of any knowledge of releases) and cooperate fully with any investigation or removal or remedial action (42 U.S.C. 9607[q]).

The 2002 Small Business Liability Relief and Brownfields Revitalization Act (the "Brownfields Amendments") amended CERCLA (Public Law 107-118) and requires U.S. EPA to promulgate regulations establishing standards and practices for conducting AAI. Phase I Environmental Site Assessments (ESA) and Phase II Environmental Site Assessments (ESA) are reports that can be prepared by innocent landowners, contiguous landowners, and bonafide prospective purchasers of property in order to meet CERCLA's AAI requirements to receive protection from liability under CERCLA. Specific practices and procedures have been established to prepare Phase I ESAs and Phase II ESAs to this end, which are established in (ASTM) standards E1527-13 and E1903-11, respectively. A Phase I ESA involves an evaluation of the potential for past releases of hazardous substances at a site, or a REC. The ASTM E 1527-13 standard also recognizes the concept of a "*de minimis* condition," as the presence of hazardous substances or petroleum products in form or extent which generally do not present a material risk to human health and would not likely be subject to enforcement action if brought to the attention of governmental agencies. ASTM E 1527-13 further specifies that the term REC does not include *de minimis* conditions. A Phase II ESA is performed to attempt to confirm whether a release of hazardous substance has occurred at levels above a *de minimis* environmental condition for a REC. Phase I and II ESAs, however, are primarily utilized by owners or prospective purchasers to make informed business decisions, and

to assist owners or prospective purchasers in meeting CERCLA's AAI criteria to avoid liability for purchase of contaminated property.

Under the CERCLA process, official documents required to investigate and clean up contamination include Preliminary Assessments (PAs)/Site Inspections (SIs) (PA/SIs) and Remedial Investigations (RIs)/Feasibility Studies (FSs) (RI/FSs) as defined in CERCLA. While there are many similarities between Phase I and Phase II ESAs and PA/SIs and RI/FSs, and results of Phase I and Phase II ESAs can be used to complete PA/SIs and RI/FSs, PA/SIs and RI/FSs are more comprehensive and follow certain requirements under the CERCLA process as described below from U.S. EPA's *Guidance for Preparing Preliminary Assessments Under CERCLA* (U.S. EPA 1991):

> *"**Preliminary Assessment:** A PA is a limited-scope investigation performed by States and/or EPA on every CERCLIS [site subject to CERCLA] site. PA investigators collect readily available information and conduct a site and environs reconnaissance. The PA is designed to distinguish between sites that pose little or no threat to human health and the environment and sites that require further investigation. The PA also identifies sites requiring assessment for possible emergency response actions.*
>
> ***Site Inspection (SI):** If the PA recommends further investigation, an SI is performed. SI investigators typically collect waste and environmental samples to determine the substances present at a site and whether they are being released to the environment. The objective of the SI is to identify which sites have a high probability of qualifying for the NPL [National Priority List]. A second objective is to identify sites posing immediate health or environmental threats which require emergency response.*
>
> ***Remedial Investigation (RI):** An RI is conducted at all NPL sites. The RI is a field investigation to characterize the nature and extent of contamination at a site. The RI supports development, evaluation, and selection of the appropriate response alternative.*
>
> ***Feasibility Study (FS):** Based on the data collected during the RI, options for final remedial actions are developed and evaluated in the FS. The most viable cleanup options are evaluated based on several criteria: ability to protect human health and the environment; long- and short-term effectiveness; ability to comply with applicable State and Federal requirements; ability to reduce waste toxicity, mobility, or volume; implementability; State and community acceptance; and cost."*

Typically, detailed Human Health Risk Assessments and possibly Ecological Risk Assessments are performed during the RI stage following U.S. EPA and State guidance.

Once notification of knowledge of a release of a hazardous substance at levels exceeding prescribed volumetric standards has been made to a responsible government agency, the lead government agency will conduct a Pre-CERCLA Screening (PCS) process to confirm that the CERCLA process applies to the release. During this process, the lead regulatory agency can make the determination that there is sufficient documentation clearly demonstrating no likelihood of a release that could cause significant adverse environmental or human health impacts (U.S. EPA 2016). Examples of sufficient documentation may include, but are not limited to (U.S. EPA 2016):

- A completed removal action of all sources and releases with documentation of no
- remaining contamination due to the site release;

- Documentation showing no occurrences of hazardous substance releases;
- A comprehensive remedial investigation or equivalent data showing no release above applicable or relevant and appropriate requirements (ARARs) (i.e., numeric thresholds established by State or Federal regulatory agencies or laws); or
- A completed EPA-approved risk assessment showing no risk.

If the lead regulatory agency concludes that CERCLA applies to a release of a hazardous substance, the site is added to U.S. EPA's CERCLIS active inventory database of CERCLA sites. Next, completion of the Site Assessment process is conducted including completion of a PA, and potentially an SI, RI, and FS to investigate the contamination and determine the appropriate removal or remedial action if necessary. Per the Superfund Amendments and Reauthorization Act (SARA) including Title III, the Emergency Response and Community Right-to-Know Act (EPCRA), the CERCLA cleanup process is a public process with various required steps involving public input into the investigation and cleanup decision-making process.

State

CEQA

The CEQA Guidelines are required to define a "significant effect on the environment" as occurring where, among other things, "the environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly" (Public Resources Code, § 21083[b][3]).

In *California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD)* 62 Cal.4th 369 (2015), the Court found that a lead agency is required to evaluate the existing condition, or the presence of contamination in the soil, as part of its environmental review, because new ground disturbance could threaten dispersal of any settled contamination.

California Environmental Protection Agency (Cal/EPA)/Office of Emergency Services

The California Environmental Protection Agency (Cal/EPA) establishes regulations governing the use of hazardous materials in the State to protect air, water, and soil, as well as proper disposal and cleanup of hazardous waste. The Office of Emergency Services (OES) coordinates State and local agencies and resources for educating, planning, and warning citizens of hazardous materials and related emergencies, including organized response efforts in case of emergencies.

California Department of Toxic Substances Control (DTSC)

DTSC is a branch of Cal/EPA and regulates cleanup of hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns the public that could potentially be exposed to listed carcinogens.

California Highway Patrol/California Department of Transportation

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) have primary regulatory responsibility for the transportation of hazardous wastes and materials.

California Occupational Safety and Health Administration (CalOSHA)

The California Occupational Safety and Health Administration (CalOSHA) is responsible for promulgating and enforcing State health and safety standards and implementing the Federal

Occupational Health and Safety Act as well as the California Occupational Health and Safety Act. For example, CalOSHA's regulatory purview includes provisions to minimize the potential for release of asbestos and lead during construction and demolition activities.

Regional Water Quality Control Board (RWQCB)

One of nine regional boards in the State, the Los Angeles Regional Water Quality Control Board (RWQCB) protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the Waters of the State. The RWQCB issues and enforces the National Pollutant Discharge Elimination System (NPDES) permits and regulates leaking underground storage tanks and other sources of groundwater contamination. More details on the NPDES program are described in Chapter 13.0, Hydrology and Water Quality.

South Coast Air Quality Management District (SCAQMD)

The South Coast Air Quality Management District (SCAQMD) regulates the demolition of buildings and structures that may contain asbestos. The SCAQMD is vested with the authority to regulate airborne pollutants through both inspection and law enforcement and is to be notified 10 days in advance of any proposed demolition or abatement work.

Specifically, SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) requires work practices that limit asbestos emissions from building demolition and renovation activities, including the removal and disturbance of ACM. Rule 1403 also requires surveys of any facility being demolished or renovated for the presence of all friable and Class I and Class II non-friable ACM.

California Health and Safety Code (HSC), Division 20, Chapter 6.8, Hazardous Substances Account

Chapter 6.8 of Division 20 of the California Health and Safety Code (HSC) also establishes a program for State cleanup processes to provide for response authority for releases of hazardous substances, including spills and hazardous waste disposal sites, that pose a threat to the public health or the environment. Section 25319.5 of Chapter 6.8 of the HSC requires the preparation of a Preliminary Endangerment Assessment (PEA) to determine if a past release has occurred on a site and if it has the potential to result in a threat to public health or the environment. PEAs contain much of the information required in PA/SIs under CERCLA (DTSC 2015), but also involve completion of screening level Human Health Risk Assessments and possibly Ecological Risk Assessments. Completion of a PEA is a formal step in the State cleanup process and can also be used to satisfy AAI under CERCLA (DTSC 2015).

DTSC oversees the PEA process and grants some flexibility regarding the focus of the PEA (DTSC 2015). As under CERCLA, the PEA process is a public process involving public noticing and a public comment period (DTSC 2015).

Local

Los Angeles County Department of Environmental Health

The Los Angeles County Department of Environmental Health operates the Household and Small Business Hazardous Waste Collection Program.

Los Angeles County Fire Department (LACFD)

The Los Angeles County Fire Department operates the Community Emergency Response Team (CERT) program. The Program trains and certifies members of the public in basic emergency response and organizational skills, including light fire suppression, hazardous materials awareness, first aid, light search and rescue techniques, and disaster response assistance.

> ***LACFD, Health Hazardous Materials Division (HHMD).*** The HHMD requires a business plan to be prepared, submitted, and implemented by any business handling hazardous materials or a mixture containing a hazardous material. The HHMD requires business plans for all hazardous waste generators, regardless of quantity generated, and for any business that uses quantities of hazardous materials, including insecticides, fungicides, rodenticides, and Class I explosives. County inspections reduce risks associated with exposure to hazardous materials and adverse effects on the environment. The federal government and the State of California require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to submit a business plan to its local Certified Unified Program Agency (CUPA). The Monrovia Fire Department is the local CUPA. The Site Mitigation Unit of the HHMD has been delegated some authority by DTSC to oversee the investigation and remediation of certain contaminated sites undergoing voluntary cleanups in Los Angeles County under Chapter 6.5 of Division 20 of California Health and Safety Code (LACoFD 2019).

Monrovia Fire and Rescue

Monrovia Fire and Rescue is the local lead for emergency response in the City, although mutual aid agreements exist for neighboring cities and LACFD. There are two fire stations in Monrovia; Fire Station 102 is approximately 0.5 mile southeast of the Project area. More discussion on the impacts on Fire Protection Services is contained in Chapter 18.0, Public Services.

12.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to hazards and hazardous materials that could result from Project implementation and discusses any recommended mitigation measures to reduce significant impacts.

12.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items IX (a) through (g), implementation of the Project would have a significant impact related to hazards and hazardous materials if it would:

(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

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

(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

(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, result in a safety hazard or excessive noise for people residing or working in or outside the Planning Area;

(f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan; or

(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impacts on emergency response (criteria [f]) and wildland fire (criteria [g]) are discussed in Chapter 18.0, Public Services, and are not discussed further in this Chapter.

12.2.2 Environmental Impacts

IMPACT HAZ-1 HAZARDOUS MATERIALS MANAGEMENT

Construction under the Project would involve the temporary use and transport of fuels, lubricating fluids, solvents, paints, and other hazardous materials that have the potential to be spilled. However, implementation of standard Best Management Practices (BMPs) for management of hazardous materials during construction will be required through the land use clearance and building permit processes. Therefore, construction impacts on hazardous materials management would be less than significant.

Proposed new residential units under the Project would not be expected to result in an increased use of hazardous materials. Rather, replacement of residential uses for industrial uses would result in a decreased use in hazardous materials. Therefore, the Project is expected to result in a net benefit on hazardous materials management over the long term.

Mitigation Measures

No mitigation measures are required.

IMPACT HAZ-2 HAZARDOUS WASTE

Detection of PCE and TCE in soil samples above PQLs, and TPH, PCE, TCE, carbon tetrachloride, metals, and Freon-113 in soil vapor samples above PQLs indicate a potential release of hazardous substances onto the subject property, specifically, in the southern half of the Project area at the two industrial properties at 1610 South Magnolia Avenue and 1551 South Primrose Avenue. This evidence of a release is subject to notification under CERCLA and the California Health and Safety Code Division 20, Chapter 6.8. As such, DTSC, or another regulatory agency delegated authority by DTSC to investigate and remediate the contaminated property (i.e., the Los Angeles County Fire Department's Health Hazardous Materials Division's Site Mitigation Unit) (herein referred to as designee), must be notified of the potential release and a Pre-CERCLA Screening/scoping process must be performed by DTSC, or designee, to determine if the potential

release is subject to review under the CERCLA process and California Health and Safety Code Division 20, Chapter 6.8.

Project construction activities have the potential to exacerbate conditions by spreading contamination resulting in exposure of construction workers and future occupants of the buildings, and adjacent residents to hazardous substances. The HHRA prepared for the Project recommends the installation of a vapor barrier designed by a professional engineer to prevent vapor intrusion as mitigation of vapor intrusion hazards. However, there currently is no substantial evidence to indicate that the source of contamination in soil and soil vapor at 1610 South Magnolia Avenue and 1551 South Primrose Avenue is from a contaminated groundwater plume, and evidence is presented to indicate that groundwater may not be the source. Therefore, the source of contamination in soil and soil vapor at 1610 South Magnolia Avenue and 1551 South Primrose Avenue is currently unknown. Failure to fully investigate and remove or remediate the contamination as required pursuant to CERCLA and the California Health and Safety Code Division 20, Chapter 6.8, as dictated by DTSC or its designee, would potentially result in exposure of construction workers, future residents, or adjacent residents to hazardous substances having the potential to cause adverse health effects. Without mitigation, impacts would be significant.

Mitigation measure HAZ-1 requires full compliance with the CERCLA and California Health and Safety Code Division 20, Chapter 6.8 processes for the investigation and removal or remediation of contamination on the Plan area, if required, prior to or concurrently with demolition or grading. With implementation of this mitigation measure, the hazardous substances detected on the Plan area would be effectively addressed and protection of workers, future residents, and adjacent residents would be safeguarded. With implementation of this mitigation measure, impacts related to the release of hazardous substances would be reduced to less than significant levels.
Finally, buildings in the Project area may contain asbestos containing material (ACM) and lead-based paint (LBP) due to their construction dates. Structures older than 1950 may contain LBP and structures older than 1980 may contain ACM. Demolition of these structures without proper testing and abatement of these materials would be a significant impact. Therefore, implementation of mitigation measure MM HAZ-2 shall be required to properly test for and abate ACM and LBP in the Project area. With implementation of this measure, ACM and LBP impacts would be reduced to less than significant levels.

Mitigation Measures

MM HAZ-1: The DTSC shall be notified of the results of all Phase I Environmental Site Assessments (ESAs), Phase II (ESAs), and Human Health Risk Assessments prepared for the Project site. The Applicant/Developer shall comply with all requirements of DTSC for remediation of the portions of the Project site that are subject to CERCLA or California Health and Safety Code Division 20, Chapter 6.8 including, without limitation, requirements of any remediation plan or agreement and the requirement to install a vapor barrier, and the timing established by DTSC for such remediation. **Requirements and Timing:** The remediation measures specified above shall be performed in accordance with any plan or agreement that has been approved by DTSC, including work that is to be performed prior to or in conjunction with grading and/or demolition in the portions of the development subject to CERCLA or California Health and Safety Code Division 20, Chapter 6.8, as required by DTSC. **Monitoring:** Prior to issuance of grading and/or demolition permits, City Planning shall be provided with any approved plan or agreement for remediation of the project site, along with documentation of DTSC's approval of the plan or agreement. Prior to the issuance of a certificate of occupancy for any structure on the property, City Planning shall be provided with documentation that all remediation actions, which are required to be implemented by the approved plan or agreement, if any, have

been implemented in accordance with the approved plan or agreement and that DTSC has signed off on any such required remediation.

MM HAZ-2: Prior to issuance of permits for demolition of structures older than 1950 in the Project area, a survey for lead-based paint (LBP) and a survey for asbestos containing material (ACM) shall be performed. Prior to issuance of demolition permits, copies of the survey report(s) and all notifications submitted to the South Coast Air Quality Management District (SCAQMD) of the proposed demolition and any response from SCAQMD shall be provided to City Planning. **Requirements and Timing:** LBP and ACM survey reports shall be submitted to City Planning prior to issuance of demolition permits along with copies of all notifications that have been provided to SCAQMD and any response from SCAQMD, including any abatement actions that are being required by SCAQMD. Documentation of performance of any abatement actions that are required to be performed prior to the issuance of demolition permits and signoff by the SCAQMD, also shall be provided to City Planning prior to the issuance of demolition permits by the City. **Monitoring:** City Planning staff shall require receipt of LBP and ACM reports and shall confirm notifications have been sent to the SCAQMD prior to issuance of demolition permits. City Planning staff shall confirm that the SCAQMD has signed off on any abatement activities that are required to be completed prior to demolition and that such requirements have been completed and signed off by SCAQMD prior to issuance of City permits for demolition. Documentation of completion of any abatement actions required by SCAQMD, which are required to be performed concurrently with demolition and sign off by SCAQMD, shall be provided to City Planning prior to the issuance of a certificate of occupancy by the City.

IMPACT HAZ-3 AIRPORTS

There are no private or public airports near the Project area. Therefore, implementation of the Project would not result in a safety hazard related to airports and would not conflict with any airport Land Use Plan. No impact would occur.

Mitigation Measures

No mitigation measures are required.

12.2.3 Impact Conclusions

With implementation of mitigation measures MM HAZ-1 and MM HAZ-2, potentially significant hazards and hazardous materials/waste impacts would be reduced to less than significant levels.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
AAI	All Appropriate Inquiries
ACM	asbestos containing material
ASTM	American Society for Testing and Materials
BAAQMD	Bay Area Air Quality Management District
CBIA	California Building Industry Association
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Emergency Response, Compensation, and Liability Act
CERT	Community Emergency Response Team

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
CHP	California Highway Patrol
CUPA	Certified Unified Program Agency
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FS	Feasibility Study
HHMD	Health Hazardous Materials Division
HHRA	Human Health Risk Assessment
LACFD	Los Angeles County Fire Department
LBP	lead based paint
LUST	Leaking underground storage tank
MM	Mitigation measure
NIH	National Institutes of Health
NPDES	National Pollutant Discharge Elimination System
µg/m3	micrograms per cubic meter
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
PA	Preliminary assessment
PCE	tetrachloroethene
PEA	Preliminary Endangerment Assessment
PQL	Practical Quantitation Limits
PWL	practical quantitation limits
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RI	Remedial Investigation
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act Title III
SCAQMD	South Coast Air Quality Management District
SI	Site Inspection
TCE	trichloroethene
TPH	total petroleum hydrocarbons
TSCA	Toxic Substances Control Act
USC	United States Code
VOC	volatile organic compound

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13. HYDROLOGY AND WATER QUALITY

This EIR Chapter describes existing hydrology and water quality conditions in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts, describes potential Project impacts, and identifies mitigation measures, if any, that would avoid or reduce the potential impacts.

Impacts on groundwater supply and other water-supply related issues are discussed in EIR Chapter 20 (Utilities and Service Systems).

13.1 SETTING

This analysis is based in part upon the LID Report and Drainage Report prepared for the Arroyo at Monrovia Station Specific Plan by KHR Associates (KHR 2018, 2019) and included in Appendix H, as well as various sub-pages available on the Monrovia's website at:

http://www.cityofmonrovia.org/your-government/public-works

Pursuant to Section 15150 of the CEQA Guidelines, these documents are herein incorporated by reference into this EIR and are available upon request.

13.1.1 Environmental Setting

Groundwater

According to the 2015 Urban Water Management Plan completed for the City of Monrovia, the Project area is within the Main San Gabriel groundwater basin, and this groundwater basin is Monrovia's primary water source. The Main San Gabriel Basin freshwater storage capacity is estimated to be approximately 8.7 million acre-feet (AF). Approximately 1.0 million AF of this groundwater basin is actively managed to provide the local public water supply by importing supplemental water to recharge the basin. The City pumps groundwater from five active wells with a combined capacity of approximately 10,000 gallons per minute (gpm). Water from these wells currently serves approximately 36,600 people with 9,600 service connections.

Surface Hydrology and Water Quality

The Project area contains industrial and residential buildings, paved parking surfaces, other hardscape, and landscaping. The existing site topography has an elevation change of approximately 8 feet from the northeasterly corner near Primrose Avenue to the northwesterly corner near Magnolia Avenue and approximately 4 feet from the northern portion of the site to the southern portion of the site (KHR 2019). The City of Monrovia has reported a history of minor flooding issues on the south side of Evergreen Avenue fronting a couple of the existing residential lots (KHR 2019). The cause of the flooding is due to the I-210 Freeway drainage system that discharges onto the north side of Evergreen Avenue.

The stormwater runoff on Evergreen Avenue and Pomona Avenue, between Primrose Avenue and Magnolia Avenue, flows from east to west and then continues to flow south on Magnolia Avenue to the two City catch basins (CB1 and CB2) that are located just north of the METRO Gold Line tracks (KHR 2019). The runoff that is collected in these catch basins is then conveyed

to the south side of the tracks within a 60-inch by 16-inch reinforced concrete basin (RCB) then discharges the runoff back onto Magnolia Avenue through the curb face via an existing parkway culvert, which then ultimately gets collected in the City catch basins (CB3 and CB4) located at the intersection of Magnolia Avenue and Duarte Road. The two catch basins (CB3 and CB4) on the east side of Magnolia Avenue, north of Duarte Road, connect to an 18-inch City-owned storm drain within Duarte Road, commencing at Magnolia Avenue and continuing westerly.

The stormwater runoff on Primrose Avenue flows from north to south past the intersection with Pomona Avenue to the catch basin (CB5) at the dead end of Primrose Avenue. This catch basin (CB5) connects to an 87-inch reinforced concrete pipe (RCP) storm drain operated and owned by the Los Angeles County Flood Control District (LACFCD) that continues south until it turns west at the intersection of Peck Road and Duarte Road.

The City block comprising the Project area can be broken into four drainage areas, EX-A through EX-D (KHR 2019) (Figure 13-1). Existing surface hydrologic conditions are depicted in Figure 13-1 and summarized in Table 13-1. Peak discharges were computed for the 10-year hypothetical storm return frequency.

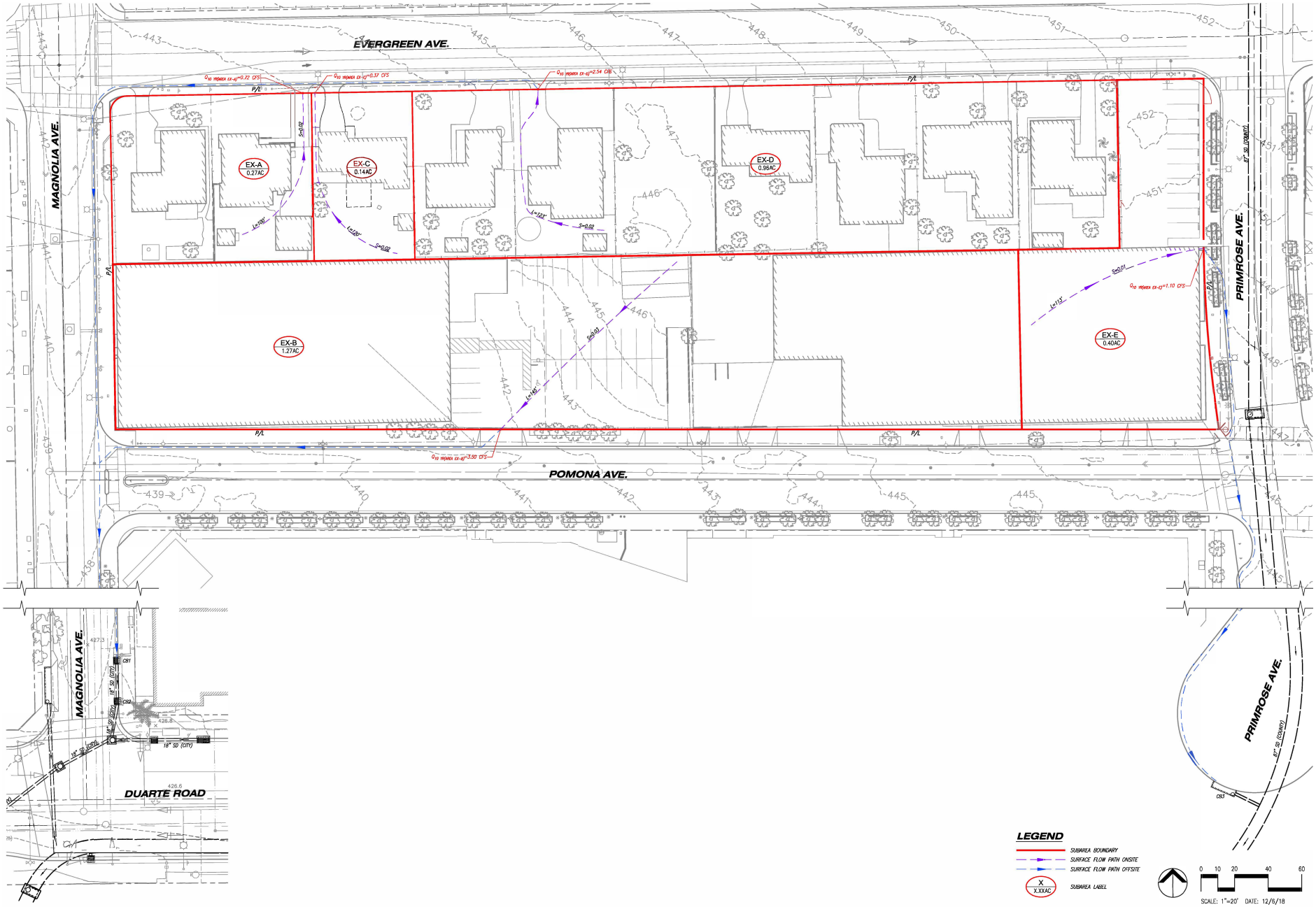
Table 13-1 Existing Hydrology/Stormwater Drainage Conditions, 10-Year Storm

Drainage Subarea	Area (acres)	Q_{10} (cfs)
EX-A	0.27	0.72
EX-B	1.27	3.50
EX-C	0.96	2.54
EX-D	0.40	1.10
Total	**2.90**	**7.86**

Flooding and Other Hydrologic Hazards

As discussed above, localized flooding of Evergreen Avenue from drainage off of the I-210 that occurs near the Project site. However, no area within Monrovia is subject to 100-year floods according to the San Gabriel Valley Association of Cities (2018). A review of Federal Emergency Management Agency (FEMA) maps also confirms that the Project area is not located within a mapped floodplain (FEMA 2018).

According to the Safety Element of the City's General Plan (City of Monrovia 2002), the proposed Project location is within both the Santa Anita Wash and Dam Flood Inundation Area and the Sawpit Wash and Debris Basin Flood Inundation Area. The combined capacity of the Santa Anita Dam and Sawpit Debris Dam is 1,852 acre-feet (AF). Santa Anita Dam, built in 1927, is located northwest of downtown Monrovia and has a capacity of 1,376 AF. The Santa Anita Wash leads from the Santa Anita Dam and is located along Monrovia's western boundary. The Sawpit Debris Basin is located in the Monrovia foothills and has a capacity of 476 AF. The Sawpit Wash leads from the Sawpit Debris Basin and is located in east Monrovia. Both the Santa Anita Wash and Sawpit Wash generally flow in a southerly direction and converge at a point south of Live Oak Avenue. Both drainages are maintained by the Los Angeles County Flood Control District (LACFCD).



Source: KHR Associates 2019

Figure 13-1: Existing Surface Hydrology Map

Arroyo at Monrovia Station Specific Plan Draft EIR

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A seiche is typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours

State

Porter-Cologne Act

Under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act), the SWQCB has authority over state water rights and water quality policy. Porter-Cologne also established nine RWQCBs to oversee water quality on a day-to-day basis at the local/regional level. RWQCBs engage in a number of water quality functions in their respective regions. One of the most important responsibilities is preparing and periodically updating the water quality control plans. Each Plan establishes:

- Beneficial uses of water designated for each water body to be protected;
- Water quality standards, known as water quality objectives, for both surface water and groundwater; and
- Actions necessary to maintain these standards in order to control non-point and point sources of pollution to the State's waters.

Permits issued to control pollution (i.e., waste discharge requirements) must implement Basin Plan requirements (i.e., water quality standards), taking into consideration beneficial uses to be protected. The RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within any region must file a report of waste discharge with the appropriate RWQCB. No discharge may take place until the RWQCB issues waste discharge requirements or a waiver of the waste discharge requirements

The State Water Resources Control Board and the nine RWQCBs protect water quality in the State of California. Monrovia is under the jurisdiction of the Los Angeles RWQCB (Region 4) (herein referred to as RWQCB).

Local

Municipal Regional Stormwater NPDES Permit

On November 8, 2012, the RWQCB adopted Order R4-2012-0175 (Waste Discharge Requirements for Municipal Separate Storm Sewer System) (MS4) Discharges within Coastal Watersheds of Los Angeles County (MS4 Permit). Order R4-2012-0175 became effective on December 28, 2013 and serves as the NPDES permit for stormwater and non-stormwater discharges originating from the Los Angeles County Region. The permit covers the land areas in the Los Angeles County Flood Control jurisdiction, unincorporated areas of Los Angeles County, and 84 cities within the County of Los Angeles. The City of Monrovia is included in the MS4 Permit as a permittee under Order R4-2012-0175. The City of Monrovia is a member of the Los Angeles County Storm Water Program, which regulates and controls storm water and urban runoff into the Los Angeles River, San Gabriel River, tributaries to these rivers, and ultimately the Pacific Ocean.

The MS4 permit prohibits future projects from causing an increase in the volume or rate of stormwater runoff from a project site (i.e., prohibits hydromodification of a project site), and

requires treatment of runoff from a project site. To accomplish this, the RWQCB and Los Angeles County encourage the use of Low Impact Development (LID) technology to infiltrate and treat stormwater runoff during operation of new projects (i.e., through bioswales, use pervious pavers etc.). In order to comply with the current MS4 Permit, a "Low Impact Development (LID) Standards Manual" was developed by the County (2014) that details actions for compliance with the MS4 Permit.

The MS4 permit requires new development and redevelopment projects to retain on-site a specified volume of stormwater runoff, the Stormwater Quality Design Volume (SWQDv), from a design storm event where the design storm is defined as the greater of (Los Angeles County Department of Public Works [LACDPW] 2014):

- The 0.75-inch, 24-hour rain event; or
- The 85th percentile, 24-hour rain event as determined from the Los Angeles County 85th percentile precipitation isohyetal map.

In addition, the peak volume discharge must be captured and treated as well according to the Los Angeles County Standard Urban Storm Water Mitigation Plan (SUSMP) prepared in compliance with the MS4 permit (Los Angeles County 2000).

13.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to hydrology and water quality that could result from the Project. The Section also recommends mitigation measures as needed to reduce significant impacts.

13.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: X (a), (c), and (d), implementation of the Project would have a significant impact related to hydrology and water quality if it would:

(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality;

(c) Substantially alter the existing drainage pattern of the Project area or vicinity, 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 in or outside the Project area;
ii) substantially increase the rate or 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 additional runoff;
iv) impede or redirect flood flows; or

(d) Result in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

Impacts on groundwater are discussed in EIR Chapter 20 (Utilities and Service Systems).

13.2.2 Analysis Methodology

The methodology for evaluating potential environmental impacts related to hydrology and water quality followed this basic sequence:

(1) Background reports were evaluated to identify existing environmental conditions and issues related to hydrology and water quality, including the regulatory framework that applies to these issues.

(2) The CEQA Statute and Guidelines were consulted to identify environmental impact topics and issues that should be addressed in the EIR.

(3) The Project was analyzed to determine if any significant impacts to hydrology and water quality would occur.

(4) For potential environmental impacts, mitigation measures were designed to avoid or reduce each impact to a less than significant level.

13.2.3 Environmental Impacts

IMPACT HYD-1 SURFACE HYDROLOGY AND WATER QUALITY

This discussion evaluates the potential of the Project to:

- Violate any water quality standards or waste discharge requirements;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
- Otherwise substantially degrade water quality.

To address the potential for localized flooding of the Project site, specifically the area along the south side of Evergreen Avenue that experiences drainage from the I-210, a concrete barrier curb will be placed along the northern property line of the Project site (KHR 2019).

The majority of the Project site and surrounding area is currently developed with hardscape and structures. However, buildout of the Project would increase the amount of impervious surfaces, which would cause an increase in the volume and rate of stormwater runoff and potentially result in degradation of water quality in offsite water bodies.

The Preliminary Drainage Study (KHR 2019) found that the existing site has a total imperviousness of 76 percent. The Project would increase the site's overall total imperviousness percentage to 89 percent. To deal with the increase in imperviousness and associated stormwater

runoff, stormwater runoff from the Project would be managed through installation of storage tanks and dry wells on the property.

The City block comprising the Project area was broken into two subareas: P-A and P-B. Figures 13-2 and 13-3 depict post-Project hydrology conditions as well as proposed LID improvements and stormwater Best Management Practices (BMPs).

The runoff from subareas P-A and P-B would be routed to one of two systems that each include an Aqua-Swirl unit for pre-treatment, an underground storage tank, and a dry well for infiltration. The dry well would infiltrate water at a depth of 75 feet per the recommendations of the Geotechnical Report (LCG 2018). The overflow would be diverted through the proposed private storm drain system towards Primrose Avenue where there would be two connections (Connection #1 and Connection #2) to the existing LACFCD 87-inch Storm Drain Project No. 216 (KHR 2019).

Peak discharges were computed for the 10-year hypothetical storm return frequency if the Project was implemented. Table 13-2 depicts the stormwater conditions with the Project, but without the proposed drainage improvements.

Table 13-2 Project Hydrology/Stormwater Drainage Conditions, 10-Year Storm

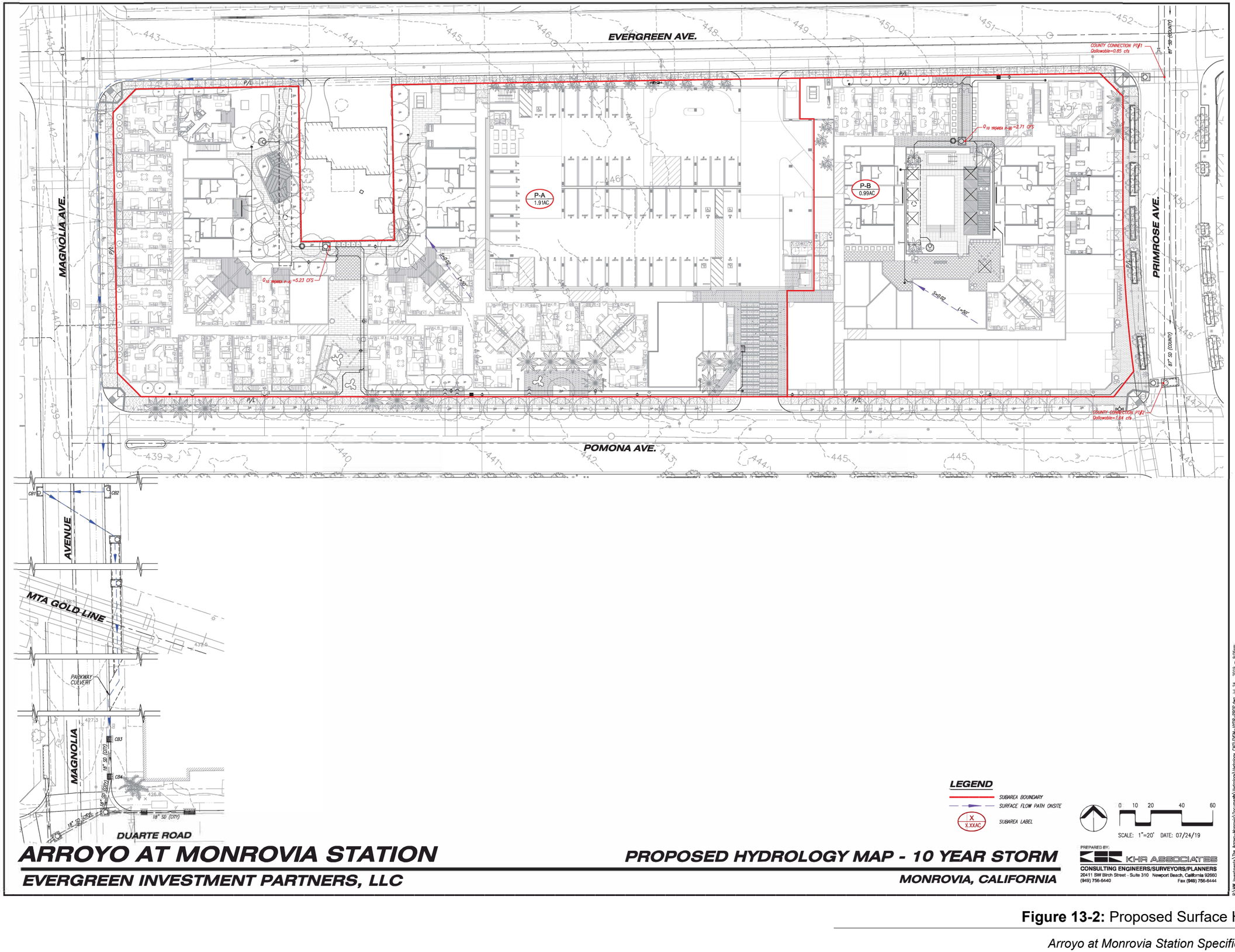
Drainage Subarea	Area (acres)	Imperviousness	Q_{10} (cfs)
P-A	1.91	89%	5.23
P-B	0.99	90%	2.71
Total	**2.90**	**89%**	**7.94**

Calculations in Table 13-2 reflect the gross amount of stormwater processed by areas P-A and P-B (in other words, the water that would be discharged *without storage tank and dry well infiltration*).

The Project proposes to install a private storm drain system within both subareas P-A and P-B to reduce the quantity of stormwater discharged. Storage capacity for area P-A would be 6,180 cubic feet, while the system in area P-B could hold 3,265 cubic feet, for a total of 9,445 cubic feet of storage capacity (KHR 2019). Table 13-3 depicts the amount of proposed overflow discharge to public storm drains (KHR 2018, 2019).

Table 13-3 Existing vs. Proposed Flow into Public Storm Drain System, 10-Year Storm

Public Storm Drain Facility	Existing	Proposed
City Storm Drain	7.13 cfs	0.36 cfs
County Storm Drain	1.10 cfs	2.49 cfs
Total Flow into Public Storm Drain System	**8.23 cfs**	**2.85 cfs**



ARROYO AT MONROVIA STATION

EVERGREEN INVESTMENT PARTNERS, LLC

PROPOSED HYDROLOGY MAP - 10 YEAR STORM

MONROVIA, CALIFORNIA

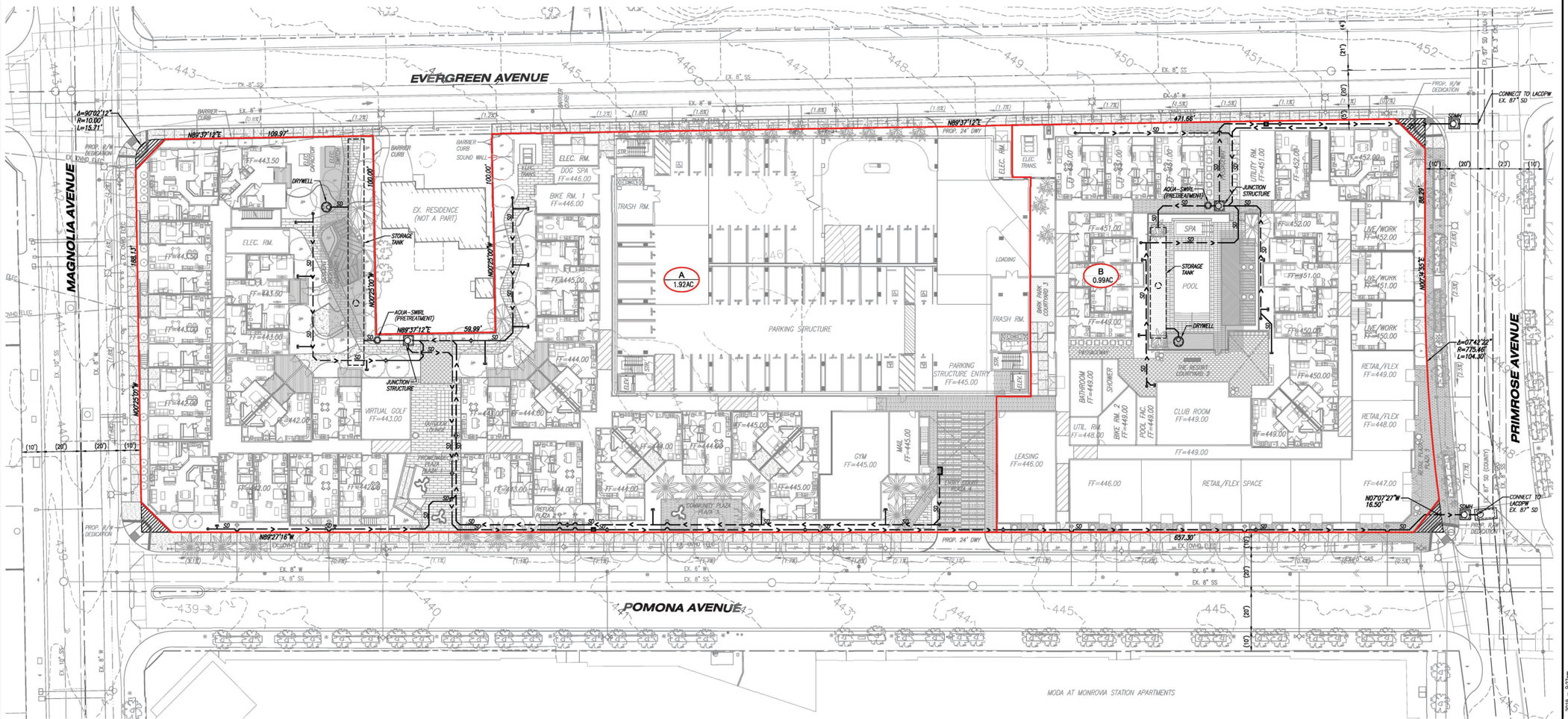
Figure 13-2: Proposed Surface Hydrology Map

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DRYWELL & STORAGE TANK DATA				
SUBAREA	DRYWELL DIAMETER	DRYWELL DEPTH	STORAGE TANK DIAMETER	STORAGE TANK LENGTH
A	4'	75'	8'	114'
B	4'	75'	8'	56'

LEGEND

- SUBAREA BOUNDARY
- X / X.XXAC — SUBAREA LABEL
- INFILTRATION FACILITY SETBACK AREA (5' FROM P/L OR R/W; 15' FROM BLDG. FOUNDATIONS)
- BUILDING POC



SCALE: 1"=20' DATE: 07/24/19

PREPARED BY:
KHA ASSOCIATES
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ARROYO AT MONROVIA STATION

EVERGREEN INVESTMENT PARTNERS, LLC

C-2: PRELIMINARY LID/STORM DRAIN PLAN

MONROVIA, CALIFORNIA

S:\EVI Investments\The Arroyo-Monrovia\CDs\Precise Grading\DWM-LID-PLAN.dwg Jul 24, 2019 - 9:27am

Figure 13-3: Preliminary LID Exhibit

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Standard Conditions

SC HYD-1: Based upon the requirements of the City's Stormwater Management Ordinance, Monrovia Municipal Code Section 12.36, and the Los Angeles County Municipal Storm Water National Pollutant Discharge Elimination System (MS4 NPDES) Permit issued by California Regional Water Quality Control Board, Los Angeles Region, the following shall be incorporated into the Project application:

- Minimize impacts from storm water runoff on the biological integrity of natural drainage systems and water bodies in accordance with requirements under the California Environmental Quality Act (California Public Resources Code Section 21100), Section 13369 of the California Water Code, Sections 319, 402(p), and 404 of the Clean Water Act, Section 6217(g) of the Coastal Zone Act Reauthorization Amendments, Section 7 of the Environmental Protection Act, and local governmental ordinances.
- Maximize the percentage of permeable surfaces to allow more percolation of storm water into the ground.
- Minimize the amount of storm water directed to impermeable surfaces.
- Minimize pollution emanating from parking lots through the use of appropriate treatment control using best management and good housekeeping practices.
- The applicant shall integrate Best Management Practices to ensure compliance with NPDES guidelines and the City's Stormwater Management Ordinance, MMC 12.36 to the satisfaction of the City Engineer, prior to the issuance of the grading permit. The design, implementation, construction activities and maintenance of the management devices shall mitigate and reduce pollutants in storm water discharges to the maximum extent practicable and shall be identified as on a "site specific mitigation plan." Site Specific Mitigation Plan must specifically address and provide best management practices (BMPs) either structural or non-structural to mitigate pollutants.
- The applicant shall conduct annual maintenance inspections by the manufacturer or by a City approved inspector of all structural and/or treatment control storm water devices by following best management practices which shall also verify the legibility of all required stencils and signs which shall be repainted and labeled as necessary. Proof of such inspection shall be retained by the Applicant and a copy submitted to the City of Monrovia on a yearly basis.

Mitigation Measures

No mitigation measures are required.

IMPACT HYD-2 FLOODING AND OTHER HYDROLOGIC HAZARDS

This discussion evaluates the potential of the proposed Project to:

- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place structures within a 100-year flood hazard area which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding including flooding as a result of the failure of a levee or dam; or

- Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

The Project area is not located within a 100-year flood hazard area. The Project area is, however, located within the inundation areas for Santa Anita Dam and Sawpit Debris Dam. A rupture of these dams (i.e., in the event of an earthquake, seiche, or catastrophic failure during a rain event) could result in inundation of the Project area. However, these reservoirs, as well as others in California, are continually monitored by various governmental agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to guard against the threat of dam failure. Current design, construction practices, and ongoing programs of review, modification, or total reconstruction of existing dams are intended to ensure that all dams are capable of withstanding the maximum considered earthquake for the site. Therefore, the potential for dam failure is considered low. Also, evacuation plans have been developed in dam inundation areas by the County of Los Angeles Office of Emergency Management in emergency response plans. Therefore, impacts on safety as a result of a dam failure is also considered low. Impacts would be less than significant.

As the Project area is not adjacent to the water body behind the Santa Anita Dam, there would be no risk of direct impacts from a seiche on this water body.

Mitigation Measures

No mitigation measures are required.

13.2.4 Impact Conclusions

Compliance with the requirements of the MS4 Permit highlighted in standard condition SC HYD-1 and NPDES Permits for Construction Activities, would ensure that the Project would result in less than significant impacts on the volume and quality of storm water runoff from the Project area. The Project would also have less than significant impacts on flooding potential

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
AF	acre-feet
BMP	Best Management Practice
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CWA	Clean Water Act
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
Gpm	Gallons per minute
LACDPW	Los Angeles County Department of Public Works
LACFCD	Los Angeles County Flood Control District
LID	Low Impact Development
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
Q_{10}	flow rate under a 10-year event
RCP	Reinforced Concrete Pipe

RWQCB	Regional Water Quality Control Board
SUSMP	Los Angeles County Standard Urban Storm Water Mitigation Plan
SWQCB	State Water Quality Control Board
SWQDv	Stormwater Quality Design Volume
SWRCB	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TMDL	Total Maximum Daily Load

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14. LAND USE AND PLANNING

This EIR Chapter describes existing land use in the Project area, includes the regulatory framework necessary to evaluate potential environmental impacts resulting from the Project, and describes potential impacts that could result from the Project.

14.1 SETTING

The environmental and regulatory setting with respect to land use and planning is described generally within the City as well as specifically at the Project area and its surroundings. The City's land use and zoning designation maps (City of Monrovia 2018 and 2010, respectively) along with the City's Land Use Element (City of Monrovia 2018) are used to describe these local conditions.

14.1.1 Environmental Setting

The City of Monrovia is approximately 14 square miles (8,960 acres) in size. The City is bounded by the City of Arcadia to the west, Los Angeles National Forest to the north, the Cities of Bradbury and Duarte to the east, and unincorporated Los Angeles County and the City of Irwindale to the south. As one of the older incorporated cities in Los Angeles County, Monrovia has very little undeveloped vacant land. Monrovia is largely a residential community that experienced most of its residential growth in the 1960s. Some vacant land exists in the hillside areas. However, Monrovia residents voted overwhelmingly in July 2000 to preserve open space and tax themselves to help buy hillside land from private owners to prevent further residential development.

The Project area is comprised of one City block, excluding one parcel, and approximately 2.90 acres. The block is by bounded by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west. The Project area comprises the entire block, with the exception of a 0.14-acre single-family residential parcel (Assessor Parcel Number [APN] 8507-002-013) at 230 W. Evergreen Avenue (Figure 3-1).

Current Land Use Designation. The Project area is designated as Planned Development Area 12 (Station Square Transit Village) under the City's Land Use Element. This allows flexibility in land use types, location, and intensities that will allow individual development projects to be consistent with Station Square Transit Village goals and objectives. The goals and objectives for the Station Square Transit Village are to transition the area to mixed use, high density residential, and/or commercial uses.

Current Land Uses. The current land uses within the Project area include a mix of light industrial, single family residential, one vacant parcel, and private surface parking. The Project area currently comprises 8 single-family residences (comprising 7,612 square feet [sf]) and two light industrial buildings/warehouses (comprising 39,500 sf) for a total of 47,112 sf, as well as a vacant lot and a private parking lot (Table 3-1).

Surrounding Land Uses. The Project area is surrounded by a variety of land uses (Table 14-1). Notably, the rest of Planned Development Area 12 (Station Square Transit Village) lies to the east of the Project area across South Primrose Avenue and to the south across West Pomona Avenue. Specific land uses are established within the Planned Development-12 zone. An industrial area

lies west of South Magnolia Avenue while The Parks at Station Square S Specific Plan area (now known as MODA at Monrovia Station) and the Station Square South Specific Plan area lie south of Pomona Avenue (the railroad tracks separate the two).The Parks at Station Square Specific Plan is fully constructed and now leasing. It consists of a 5-story residential development containing 261 units on a 2.82-acre site. The Station Square South Specific Plan area lies south of The Parks at Station Square Specific Plan Specific Plan area, and consists of a 3.79 acre site approved for development of a transit-oriented development consisting of 296 residential units, including 6-live work units, public open space, a publicly accessible driveway, and drop-off area for the adjacent Metro Gold Line Station in a portion of Peck Road, and parking. Lastly, the I-210 Freeway is located across West Evergreen Avenue to the north of the Project area.

Table 14-1: Surrounding Zoning and Land Use Designations

Direction	Zoning	Land Use
Project Site	Planned Development – PD-12	Planned Development Area 12 (Station Square Transit Village)
North	I-210 Freeway	I-210 Freeway
South	The Parks at Station Square Specific Plan Specific Plan and Station Square South Specific Plan	Planned Development Area 12 (Station Square Transit Village)
East	Planned Development – PD-12	Planned Development Area 12 (Station Square Transit Village)
West	Manufacturing	Manufacturing

14.1.2 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

General Plan Law (California Government Code Section 65300)

California Government Code Section 65300 regulates the substantive and topical requirements of General Plans. State Law requires each city and county to adopt a General Plan "for the physical development of the County or City, and any land outside its boundaries which bears relation to its planning." The California Supreme Court has called the General Plan the "constitution for future development." The General Plan expresses the community's development goals and embodies public policy relative to the distribution of future land uses, both public and private.

Since the General Plan affects the welfare of current and future generations, State Law requires that the plan take a long-term perspective (typically 15 to 25 years). The General Plan projects conditions and needs into the future and establishes long-term policy for day-to-day decision-making.

Policies of the General Plan are intended to guide most land use decisions. Pursuant to State Law, subdivisions, capital improvements, development agreements, and many other land use actions must be consistent with the adopted General Plan. In counties and general Law cities,

zoning regulations and Specific Plans are required to conform to the General Plan. In addition, by preparing, adopting, implementing, and maintaining the General Plan, a city or county puts in place a policy framework that:

- Serves to identify the community's land use, circulation, environmental, economic and social goals and policies as they relate to land use and development;
- Provides a basis for local government decision-making, including decisions on development approvals and exactions;
- Provides residents and other community members with opportunities to participate in the planning and decision-making processes of their communities; and
- Informs residents, developers, decision-makers and other cities and counties of the ground rules that guide development within a particular community.

State Law requires General Plans to address seven mandatory Elements (or topics): Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. Jurisdictions may also adopt additional Elements that cover topics outside the seven mandated Elements (such as economic development and historic preservation). In addition to including mandatory Elements, a General Plan must be internally consistent; as described by State Law, policy conflicts cannot exist, either textual or diagrammatic, between the components of a General Plan. Different policies must be balanced and reconciled within the plan. The internal consistency requirement has five dimensions:

- **Equal Status among Elements.** All Elements of the General Plan have equal legal status.
- **Consistency between Elements.** All Elements of a General Plan, whether mandatory or optional, must be consistent with one another.
- **Consistency within Elements.** Each Element's data, analyses, goals, policies and implementation programs must be consistent with, and complement, one another.
- **Area Plan Consistency.** All principles, goals, objectives, policies, and plan proposals set forth in an Area or Community Plan must be consistent with the overall General Plan.
- **Text and Diagram Consistency.** The General Plan's text and its accompanying diagrams are integral parts of the plan. They must be in agreement.

General Plan Guidelines (California Government Code Section 65301)

Section 65301 of the California Government Code requires a General Plan to address the geographic territory of the local jurisdiction and any other territory outside its boundaries that bears relation to the planning of the jurisdiction. The jurisdiction may utilize judgment in determining what areas outside of its boundaries to include in the planning area. The State of California General Plan Guidelines state that the Planning Area for a City should include (at minimum) all land within the City limits and all land within the City's sphere of influence.

Specific Plan Law (California Government Code Section 65451)

California Government Code Section 65451 regulates the substantive and topical requirements of Specific Plans. A Specific Plan is a tool for the systematic implementation of the General Plan and, similar to zoning regulations, it establishes a link between implementing policies of the General Plan and individual development proposals. A Specific Plan differs from zoning in that it applies to a defined geographic area and has tailored development regulations. A Specific Plan may be as general as setting forth broad policy concepts, or as detailed as providing direction on every facet of development, from the type, location, and intensity of uses to the design and capacity of infrastructure. The City has utilized the Specific Plan process for projects that have produced affordable units, reduced setbacks and parking standards, and increased densities.

Regional

Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG) assists cities, counties, and other agencies by reviewing local government plans and individual projects for consistency with the regional plans, including the Regional Comprehensive Plan and Guide, the Regional Mobility Element/Regional Transportation Plan (RTP), the Growth Management Plan, and the federally mandated Air Quality Management Plan. This program provides a framework to coordinate local and regional decisions regarding future growth forecasts at intervals ranging from three to five years. The adopted growth forecasts become the basis for SCAG's functional plans (transportation, housing, air, and water) for the region. The population totals and growth distribution are used to plan the future capacity of highways and transit systems, quantity and location of housing, water supply, and siting and sizing of sewage treatment systems.

Monrovia is one of 30 members of the San Gabriel Valley Council of Governments (SGVCOG), a subregion of SCAG, made up of the 30 cities in the San Gabriel Valley. SGVCOG's mission is to "ensure our Valley's 'fair share' of scarce federal, State, and local resources by fostering consensus among cities in the San Gabriel Valley regarding policies and programs that address issues relating to land use, air quality, transportation, solid waste and other matters deemed essential to our cities." SCVCOG's current priorities include ensuring that SCAG's RTP updates and METRO's Long Range Plan updates include SGVCOG's adopted high priority projects.

The Growth Management Chapter of the Regional Comprehensive Plan and Guide contains goals designed to improve the regional standard of living, regional quality of life, and provide social, political and cultural equity.

Local

City of Monrovia General Plan Land Use Element

The Land Use Element establishes land use policy and land use patterns that will govern growth in Monrovia until 2030. The Land Use Element promotes new development opportunities at key locations while ensuring compatibility with established neighborhoods. The objectives of this Element include:

- To attain a balanced mix of land use within the City, thereby providing residents with ready access to housing, employment, and commercial services;
- To work toward regional jobs/housing balance goals;

- To encourage private investment in the City;
- To ensure that residents from all income levels have access to decent, affordable housing;
- To revitalize specific areas of the City which could benefit from public and private redevelopment efforts;
- To create a City environment which makes Monrovia a pleasant place to live, work, shop, and do business; and
- To ensure development in Monrovia is sensitive to the City's existing architectural and natural/open space resources.

City of Monrovia Zoning Ordinance

The Subdivisions and Zoning Ordinances, Titles 16 and 17 of the City's Municipal Code, provide additional development and performance standards for development of land uses and related activities in Monrovia. The Zoning Ordinance serves as the primary implementation tool for the Land Use Element and the goals and policies it contains. A Zoning Map, consistent with the General Plan Land Use Policy Map, has been adopted to identify the zoning categories applied to each parcel of land within Monrovia. Together, the Zoning Ordinance and Map are used to identify the specific types of use, intensity, and development standards applicable to given parcels or areas of land.

14.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to land use and planning that could result from the Project.

14.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: XI (a) through (b), implementation of the Project would have a significant impact related to land use and planning if it would:

(a) Physically divide an established community; or

(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.

14.2.2 Analysis Methodology

The methodology for evaluating potential environmental impacts related to land use and planning followed this basic sequence:

(1) City and other applicable planning documents were reviewed to identify existing environmental conditions and issues related to land use and planning, including the regulatory framework that applies to these issues.

(2) The CEQA Statute and Guidelines, including Appendix G (Environmental Checklist Form), were consulted to identify environmental impact topics and issues that should be addressed.

(3) The Project was analyzed to determine if any significant impacts to land use and planning would occur. The Project was qualitatively assessed to determine whether any significant impacts

to land use and planning would occur. If the Project was determined to conflict with a relevant plan, a determination was then made as to whether the conflict or inconsistency would result in a significant physical environmental impact that would otherwise be mitigated or avoided without implementation of the Project.

(4) For potential environmental impacts, mitigation measures were designed to avoid or reduce each impact to a less than significant level, where possible.

14.2.3 Environmental Impacts

OVERVIEW OF ARROYO AT MONROVIA STATION SPECIFIC PLAN (PROJECT)

Per Government Code Section 65451, Specific Plans are permitted to regulate development including permitted uses, density, design, building size, and placement. Specific Plans also govern the type and extent of open space, landscaping, roadways, and the provision of infrastructure and utilities. The overall purpose and intent of the Specific Plan is to create a policy and zoning document that will establish a planning and regulatory framework designed for the future development and buildout of the property located within the Specific Plan area.

The Arroyo at Monrovia Station Specific Plan occurs on a 2.90-acre site within the Monrovia Station Square Transit Village. The Monrovia Station Square Transit Village is an unique opportunity for Monrovia to provide transit-orient development (TOD) that satisfies both local and regional housing needs in an environmentally sustainable manner. The Arroyo at Monrovia Station Specific Plan is organized as follows:

1. Introduction. The Introduction explains the role and function of specific plans and the purpose of the Arroyo at Monrovia Station Specific Plan, and sets forth the planning context—location, setting, and planning issues. This chapter also describes this Specific Plan's relationship to the Monrovia General Plan and Zoning Ordinance.

2. Development Plan – Land Use, Mobility and Parking, Infrastructure, and Sustainability. The Development Plan Chapter presents the following for the orderly development of the site:

Project Plan
- Development-specific land use plan and architectural style
- Vehicular and non-vehicular circulation plans
- Infrastructure and utilities improvements
- Sustainable development approaches incorporated into the project

Also included in Chapter 2 are Good Neighbor Features (refer to Specific Plan Section 2.4.3, which are restated in EIR Chapter 3, Section 3.5).

3. Use Regulations and Development Standards. This chapter sets forth permitted and conditionally permitted uses, development standards, parking requirements, open space, and performance standards.

4. Implementation. The Implementation chapter addresses the financing, administration, and amendment process for this Specific Plan.

5. Consistency with General Plan. This chapter summarizes how this Specific Plan meets the goals and policies of the Monrovia General Plan.

IMPACT LUP-1 PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY

The Project area is surrounded by a variety of land uses including the remainder of Station Square Transit Village to the south and east, Interstate-210 to the north, and manufacturing land uses to the west. Buildout of the Station Square Transit Village has already partially taken place with construction of the MODA Apartments and adoption of the Station Square South Specific Plan to the south of the Project area.

The current land uses within the Project area include a mix of single family residential, light industrial, one vacant parcel, and private surface parking. Development of the Project would result in new six-story apartment building located around the perimeter of one existing single-family residence at 230 W. Evergreen Avenue that would remain. As described in Chapter 3, Section 3.5, the Specific Plan requires good neighbor features that include landscaping and open space requirements that would provide some buffering to separate the single-family residence from the multi-story higher density apartment building.

The Project area is a Planned Development Land Use/PD-12 zoned area, or Station Square Transit Village. The Specific Plan is meant to enhance the established community by establishing higher density residential units near public transportation. Therefore, the Project is consistent with the General Plan's PD-12 guidelines, which is meant to promote higher density residential development near public transit and the surrounding land uses. Furthermore, the Project does not propose construction of any roadway, flood control channel, or other structure that would physically divide any portion of the community. Therefore, there would be no impacts.

Mitigation Measures

No mitigation measures are required.

IMPACT LUP-2 CONFLICT WITH ANY APPLICABLE LAND USE PLAN, POLICY, OR REGULATION

The Project area is designated Planned Development Area 12 (Station Square Transit Village) and is zoned Planned Development (PD-12). Residential units under the Arroyo at Monrovia Station Specific Plan would be consistent with these designations. The Specific Plan provides a vision for the area, a development plan that addresses mobility, open space, and sustainability, and includes specific land use and development standards as well as design guidelines. Major goals of the Specific Plan are to increase housing stock in Monrovia, provide live/work opportunities, upgrade the existing physical conditions of the site to a more compatible urban form with the surrounding residential neighborhood, and to accommodate sustainable site and architectural design.

The Specific Plan meets all of the applicable objectives of the City's Land Use Element. In addition, impacts of the Project on noise (over the long term), safety, open space, water supply, and transportation would be less than significant or less than significant with implementation of mitigation measures. The Project would result in an increase in residential units in Monrovia, thereby helping the City meet the goals and objectives of the Housing Element. Therefore, the proposed Specific Plan would not conflict with any other Elements of the City's General Plan and impacts would be less than significant.

The PD-12 Design Guidelines do not contain height, setback, or density requirements; however, the proposed Specific Plan would set these standards for the Project area based upon the provisions of the PD-12 Design Guidelines.

Fifteen Very Low Income affordable units are proposed under the State's Density Bonus Program to qualify the Project for a modified Floor Area Ratio from the FAR requirement of 2.5 in Industrial Neighborhoods under the PD-12 Design Guidelines for a maximum allowed FAR of 2.66 (see Chapter 3). With the addition of these affordable units, the Project would be consistent with development standards required in the PD-12 zone.

Table 14-2 presents an evaluation of the Project's consistency with the General Plan including the Land Use, Housing, Circulation, Noise, Safety, Open Space, and Conservation Elements. The table lists the goals and policies relevant to the Project and provides a summary of how the Project is consistent.

Table 14-2: Consistency with General Plan Goals and Policies

General Plan Goals and Policies	Consistency Statement
Land Use Element	
Goal 1: Provide for a mix of land uses which provides a balanced community. Policy 1.4 Encourage the location of new high density residential development in close proximity (i.e., within walking distance) of the downtown, other major retail commercial areas, and/or transit facilities. G 1, P 1.2: Allow the development of mixed use projects consisting of residential, retail, and office along existing and future transit corridors such as Myrtle Avenue and the Station Square Planning Area. G 1, P 1.8: Develop higher density residential area in close proximity to employment centers.	**Consistent.** The Project is a high density residential project with 302 units that is approximately 400 feet to the north of a METRO Gold Line Light Rail Station, which connects to employment centers throughout the City and the region. The proposed Arroyo at Monrovia Station Specific Plan also contains 7,080 square feet of commercial space associated with flex space and live/work units.
Goal 2: Provide adequate infrastructure for all development. G 2, P 2.1: Ensure that land use intensities are consistent with the capacities of existing and planned infrastructure and public services.	**Consistent.** The Project area is comprised of residential and older industrial/manufacturing buildings which are already served by urban infrastructure. Minor improvements to area intersections and water supply infrastructure would be required for the proposed Arroyo at Monrovia Station Specific Plan.
Goal 4: Promote land use patterns and development which contribute to community and neighborhood identity. G 4, P 4.1: Require new developments in established neighborhoods to consider the established architectural styles, development patterns, building materials, and scale of buildings within the vicinity of the Project.	**Consistent**. The proposed Specific Plan contains development standards and design objectives to ensure that the proposed multi-family development is designed to be compatible with the land uses approved for the Station Square Transit Village area as well as adjacent residential development. The Project's building and landscaping is designed to engage with the surrounding neighborhood. The building implements a courtyard residential design with profiled building planes centered around a parking garage (see Chapters 3 and 5). The building's articulation, materials, and colors have

	also been designed to break up the building massing to maximize compatibility with the neighborhood. . The development standards and good neighbor features of the Project would also ensure that future structures are designed to maximize compatibility with the visual character of the neighborhood, including requiring buffers between proposed structures and the residence at 230 W. Evergreen Avenue. Furthermore, required Design Review, would further ensure that Project building height, massing, materials and colors are consistent with the visual character of the neighborhood.
Goal 6: Reduce the impact of noise on residential uses. G 6, P 6.1: Residences constructed near the Foothill Freeway (I-210) or near the railroad tracks shall be designed to reduce the intrusion of sound into the dwelling.	**Consistent.** Mitigation measure MM NOI-1 requires implementation of design features along units facing the I-210 and railroad tracks to ensure that interior and exterior noise standards adopted by the City and State are met and confirmed through required acoustical analysis.
Goal 12: Expand recreational and park use opportunities. G 12, P 12.2: Maintain or increase multiple-family residential recreation space development standards as a supplement to park space.	**Consistent.** The proposed Arroyo at Monrovia Station Specific Plan is a multi-family residential Project that includes onsite recreational amenities including fitness amenities and an "art passageway."
Housing Element	
Goal 2: Provide adequate housing site to facilitate the provision of a range of housing types to meet community needs. G 2, P 2.1. Provide site opportunities for development of housing that responds to diverse community needs in terms of housing types, cost and location, emphasizing locations near services and transit that promote walkability. G 2, P 2.2. Encourage and facilitate the development of mixed use and high density residential development in specified areas (e.g. Station Square, Old Town Extension).	**Consistent**. The Project is a high-density residential project that is near the METRO Gold Line Light Rail Station that would add an additional 302 units to a 2.90 acre parcel (for a proposed density of 104 dwelling units per acre). In addition, the Project includes 15 Very Low Income units. Thus, the proposed Project would increase the overall diversity and number of housing units in the area.
Goal 6: Promote a healthy and sustainable Monrovia through support of existing and new housing which minimizes reliance on natural resources and automobile use. G 6, P 6.5: Incorporate transit and other transportation alternatives including walking and bicycling into the design of new development, particularly in areas within a half mile of designated transit stops.	**Consistent**. The proposed Arroyo at Monrovia Station Specific Plan would remove eight single family residences and replace them with a new five-story, apartment building consisting of 302 apartment units. The Project is in close proximity to the METRO Gold Line Light Rail Station, and 19 paid public parking spaces would be provided for the METRO Station under the proposed Arroyo at Monrovia Station Specific Plan. Finally, pedestrian walkways and bicycle parking would be constructed as part of the Project.
Circulation Element	
Goal 1: Minimize traffic congestion on arterial and collector streets during peak hours in	**Consistent.** The Project provides pedestrian-oriented development adjacent to a transit station

order to ensure a safe and efficient movement of people and goods within the City. G 1, P 1:1: Regulate the intensity of land use to keep traffic on any arterial in balance with roadway capacity. G 1, P 1:2: Limit direct private property access to arterials, where dual access is possible, to minimize interference with through traffic. G 1 , P 1:5: Implement traffic signal coordination on City arterial streets to the maximum extent practical, and integrate signal coordination efforts with those of adjacent jurisdictions. G 1, P 1:6: Develop and implement intersection capacity improvements where feasible and justified by existing or projected traffic demands. Opportunities to improve intersection operations throughout the City are expected to arise as future development occurs, including the area around the planned light rail station. G 1, P 1:7: Design and employ traffic control measures, including signalization, limiting access, limiting on-street parking during peak periods, constructing turn lanes, and modifying lane striping and signage to ensure City streets and roads function as needed. One specific location identified for potential re-striping improvements is the eastbound segment of Huntington Drive beneath the I-210 freeway, where the roadway narrows from three through lanes to two. G 1, P 1:9: Improve intersection and street sections wherever possible to maintain an acceptable level of service for peak traffic flows. With the recognition that the City is largely built out and that major physical improvements to the circulation system will be limited to certain areas, establish level of service (LOS) D as the minimum standard to be maintained, except at locations where LOS F conditions currently exist. When reviewing impacts at locations where existing development constrains the ability to widen or otherwise improve roadways to achieve the desired LOS, consider improvements to pedestrian and transit facilities as acceptable traffic mitigation measures. The City has determined that a project would have a significant traffic impact under California Environmental Quality Act (CEQA) at an intersection if the conditions in Table II-1 were found. For the purpose of applying these significance criteria, the V/C ratio shall be reported using the Intersection Capacity Utilization (ICU) methodology. LOS at two-way stop-controlled intersections shall be based on the Highway Capacity Manual (HCM)	and within easy walking distance to commercial areas in Monrovia. Nineteen paid public parking spaces for the METRO station would be included in the proposed Arroyo at Monrovia Station Specific Plan. Additionally, pedestrian walkways and bicycle parking would be constructed as part of the Project. In addition, implementation of the proposed Arroyo at Monrovia Station Specific Plan would not result in area intersections operating at an insufficient Level of Service, thus maintaining safe and efficient movement of people and goods through the area., No street improvements are required for the Project.

methodology and the incremental change in volume-to-capacity (V/C) ratio calculated by analyzing such intersections with the ICU methodology assuming a two-phase signal. G 1, P 1:10: For daily traffic, the desired levels of service differ according to the functional classification of the street: LOS D on primary arterials (V/C < 0.90), mid-D on secondary arterials (V/C < 0.85), LOS C on collector streets (V/C < 0.80) and LOS A on local streets (V/C < 0.60). The City has determined that a project would have a significant traffic impact under CEQA on a street if the conditions in Table II-2 are met. G 1, P 1:12: Promote ridesharing through publicity and provision of information to the public.	
GOAL 2: Provide a system of streets and alleys that meets the needs of current and future residents, local and commuter traffic demands and ensures the safe and efficient movement of vehicles, people and goods throughout the City. Improve streets and alleys to their full design standards G 2, P 2:2: All street improvements should be designed with sufficient capacity to accommodate anticipated traffic volumes based on the intensity of existing and planned land use. G 2, P 2:3: Design and employ traffic control measures to ensure that City streets and roads function safely and efficiently. G 2, P 2:6: Discourage through traffic from using local collector and residential streets. G 2, P 2:7: Seek to maintain at least LOS E during peak hours at intersections, except at locations where LOS F currently exists. G 2, P 2:8: Regulate the intensity and stages of development so that traffic on any arterial remains in balance with roadway capacity. G 2, P 2:9: As new development or redevelopment occurs, limit driveway and alley access onto arterial streets wherever possible to enhance the quality of traffic flow. G 2, P 2:10: Consider locating bus turn-outs where appropriate along heavily-traveled arterials or where the lack of a turn-out would be detrimental to traffic flow. G 2, P 2:13: Require future dedication for widening of streets and alleys as new development occurs. Prepare and maintain a master map of right-of-way dedications to be pursued as new development proposals are considered. Establish a maintenance program	**Consistent.** Implementation of the proposed Arroyo at Monrovia Station Specific Plan would not result in area intersections operating at an insufficient Level of Service, thus maintaining safe and efficient movement of people and goods through the area. No street improvements are required for the Project.

for utilities in alleys (e.g., lighting), access and upgrading of existing alleys.	
Goal 4: Support the use of the public transportation, including light rail transit, to provide mobility to all City residents and encourage use of public transportation as an alternative to automobile travel. Policy 4:1: Comply with the requirements of Americans with Disabilities Act (ADA) to ensure accessibility of elderly and disabled persons to public transportation. Continue to support Access Services, which provides ADA-compliant Para transit services (dial-a-ride service) in the City. Policy 4:3: Continue to coordinate with METRO and Foothill Transit to identify improvements to local and express bus service to Monrovia. Coordinate with these agencies to develop common standards for transit stops in the City, including seating, lighting, shelters and signage. Identify funding sources to implement the improvements determined to be necessary. Policy 4:5: Require new development along arterial streets to provide transit facilities, such as bus shelters and turn-outs designed to established standards and specifications, where deemed necessary.	**Consistent.** See Goal 1 above.
GOAL 6: Protect and encourage non-motorized transportation such as bicycle and pedestrian travel. G 6, P 6:3: Maintain existing pedestrian facilities (sidewalks and trails) and encourage new development to provide pedestrian routes to adjacent developments. Respond in a timely manner to citizen requests regarding maintenance concerns on all public pedestrian facilities. G 6, P 6:4: Continue to improve the accessibility of pedestrian facilities to the elderly and disabled, through such measures as construction of wheelchair ramps. G 6, P 6:5: Encourage the provision of an accessible and secure area for bicycle storage at all new and existing developments. G 6, P 6:6: Encourage provision of bicycle racks or storage facilities at public gathering places. G 6, P 6:8: Require new developments to provide adequate pedestrian paths on adjacent streets, including wheelchair ramps, and through the development projects, where determined to be appropriate. G 6, P 6:9: Continue installation of facilities accessible for disabled persons and link public	**Consistent.** See Goal 1 above.

facilities and commercial areas to residential neighborhoods. The use of audible warning devices at intersections along these routes should be considered.	
Goal 8: Provide an adequate supply of convenient parking for all developments in the City, in a manner consistent with the goals of managing transportation demand and providing efficient arterial traffic flows. G 8, P 8:2: Require all new developments to provide off-street parking in compliance with the City's Zoning Code and the requirements of the ADA.	**Consistent.** The proposed Arroyo at Monrovia Station Specific Plan would provide a parking structure containing adequate parking for residents as well as additional parking for the public utilizing the nearby METRO station.

Noise Element	
Program No. 2: The City will extend the California Building Code (California Code of Regulations, Title 24, Part 2, Appendix Chapter 12) requirements for noise mitigation in the design and construction of new multi-family residential developments, hotels, motels, dormitories, and apartment houses to include all types of residential developments.	**Consistent.** Mitigation measure MM NOI-1 requires implementation of design features for residential units facing the I-210 to ensure that interior and exterior noise standards by the City and State are met and confirmed through required acoustical analysis.
Safety Element	
Goal 1: Reduce to a minimum the loss of life, disruption of goods and services and destruction of property associated with an earthquake. G 1, P 1.3.2: If through an EIR, or if detailed geologic investigation confirms existence of seismic hazards, the City shall require special earthquake resistant design features or use limitations, as appropriate, to protect the public health and safety and to reduce the exposure of individuals and property to seismic risks.	**Consistent**. Mitigation measure MM GEO-1 requires the incorporation of measures recommended in the geotechnical study prepared for the Project to ensure the structural stability of the structures in compliance with California Building Code.
Open Space Element	
Goal 1: Expand the physical and social connections linking the City together and bridging to its neighbors. G 1, P 1.3: Promote walking and biking connections throughout the Station Square area with integrated public spaces and direct links to the public transportation network.	Consistent. The Project is a high density residential development near the METRO Gold Line Light Rail Station. The proposed Arroyo at Monrovia Station Specific Plan includes public parking for the METRO Gold Station and includes public open space pathways and plazas.
Conservation Element	
Objective 1. Protection against potential public health dangers through the provision of adequate facilities.	**Consistent.** A feasibility study to determine the need for additional water and wastewater infrastructure to serve the proposed Arroyo at Monrovia Station Specific Plan (Stetson Engineers 2019) was prepared. The study concluded that no additional wastewater infrastructure would be required to serve the proposed Project, but additional potable water infrastructure would be required. Specifically, additional booster pump capacity at the City's Forebay Pump Station is recommended in addition to 980 feet of pipeline replacements or upgrades along Magnolia Avenue. Under mitigation measure MM UT-1, payment of in-lieu fees would be required to ensure payment of the fair share of required improvements. Finally, mitigation measure MM UT-2 would ensure that "can and will serve letters" are issued for water and wastewater service prior to issuance of building permits for new proposed development under the Project.

Objective 2. Determine areas requiring utilities required for the future.	**Consistent.** See Objective 1.

Based on the analysis contained in Table 14-2, the Project would be consistent with the policies and standards of the General Plan. Also, impacts of the Project on all issue areas including aesthetics/visual resources, biological resources, cultural resources, water supply and water quality, and transportation would be less than significant or less than significant with implementation of mitigation measures, as discussed in other chapters of this EIR. Therefore, buildout of the proposed Arroyo at Monrovia Station Specific Plan would not conflict City's General Plan and impacts would be less than significant.

Construction of the Project would result in significant unavoidable noise impacts on adjacent residents. However, impacts would be short-term, and compliance with required construction hours and use of noise barriers during construction would help to reduce noise levels at nearby residences and ensure that the Project is consistent with the City's Municipal Code.

Consistency with SCAG RTP/SCS

Full buildout of the Project would result in 302 residential units in the 2.90-acre Project area. According to Section 15206(b) of the CEQA Guidelines, a Project of this magnitude has the potential to be considered "a project of Statewide, areawide, or regional significance." Specifically, projects in this category should be noticed to metropolitan planning organizations according to Section 15206(a) of the CEQA Guidelines. For this Project, the applicable metropolitan planning organization is SCAG. An evaluation of the Project's consistency with SCAG's 2016 RTP/SCS is provided in Table 14-3 below.

Finally, buildout of the Project would result in a population increase representing approximately 18 percent of the amount of growth projected in SCAG's 2016-2040 RTP/SCS for Monrovia. However, the Project would facilitate infill residential development and transit-oriented development that is expected to reduce overall vehicle trips in the City and region and associated emissions of criteria pollutants and greenhouse gases consistent with the RTP/SCS. In addition, Table 14-3 provides a summary of the Project's consistency with applicable goals of the RTP/SCS.

Therefore, the Project would be consistent with the goals and objectives of the RTP/SCS. As such, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Table 14-3: Consistency with RTP/SCS Goals

Goals	Consistency Statement
1. Align the plan investments and policies with improving regional economic development and competitiveness.	Not Applicable.
2. Maximize mobility and accessibility for all people and goods in the region.	**Consistent. The Project is within an HQTA.** The **Consistent.** The Project provides a pedestrian-oriented development adjacent to a transit station and within easy walking distance to commercial areas in Monrovia. Public parking for the METRO

Table 14-3: Consistency with RTP/SCS Goals

Goals	Consistency Statement
	station would be included in the proposed Arroyo at Monrovia Station Specific Plan. In addition, the proposed Arroyo at Monrovia Station Specific Plan requires the inclusion of pedestrian walkways and bicycle parking in order to encourage residents to use alternative forms of transportation. A Mobility Plan has been prepared for the Specific Plan to address these goals.
3. Ensure travel safety and reliability for all people and goods in the region.	**Consistent.** See Goal 2 above.
4. Preserve and ensure a sustainable regional transportation system.	**Consistent.** See Goal 2 above.
5. Maximize the productivity of our transportation system.	**Consistent.** See Goal 2 above.
6. Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).	**Consistent.** See Goal 2 above.
7. Actively encourage and create incentives for energy efficiency, where possible.	**Consistent.** Development under the Project would be required to comply with Title 24 of the California Building Code requiring the use of energy efficient technologies and methods. The Arroyo at Monrovia Station Specific Plan also contains the following development standards and design goals for use of energy efficient techniques: • Use of recycled construction materials. Recycled materials are expressed in two categories: pre-consumer recycling, which consists of recycled material within the construction process, and post-consumer recycling, which is actual recycled content in the final product; • Use of low-emitting materials Low emitting materials are those that have a low emittance of Volatile Organic Compounds (VOC). Most interior finishes and manufactured products used in construction are required to comply with Cal Green Code; • Forty-four electric vehicle-ready charging stations; • Daylight orientation and views. The project is designed so that many units face north or into courtyards' reduced sun-exposure for a softer lighting condition, which reduces heat gain. The north facing units of the upper levels will enjoy views of the San Gabriel Mountains. A roof top deck will provide panoramic views for all project residents; • Energy-efficient equipment and light fixtures; • Drought-tolerant landscaping and irrigation;

Table 14-3: Consistency with RTP/SCS Goals

Goals	Consistency Statement
	• Sustainable building and finishing materials; • Plant selection based on site characteristics; and • Water conservation with efficient irrigation practices
8. Encourage land use and growth patterns that facilitate transit and active transportation.	**Consistent.** See Goal 6 above.
9. Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	Not Applicable.

As discussed in Chapter 8, Biological Resources, the Project is not within a Habitat Conservation Plan/Natural Community Conservation (HCP/NCCP) Plan area, and no impacts would be associated with implementation of the Project.

14.2.4 Impact Conclusions

The Project would result in less than significant land use and planning-related impacts because the Project would not physically divide an established community and it would not conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating a significant environmental effect.

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
ADA	Americans with Disabilities Act
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
I-210	Interstate-210
ICU	Intersection Capacity Utilization
LOS	Level of service
METRO	Los Angeles County Metropolitan Transportation Authority
MM	Mitigation Measure
NCCP	Natural Community Conservation Plan
PD	Planned Development
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SGVCOG	San Gabriel Valley Council of Governments
V/C	Volume-to-capacity ratio

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Stetson Engineers, Inc. (Stetson Engineers)
2019 Water Capacity Study for Proposed Station Square Transit Village Projects. Prepared for the City of Monrovia. January 15.

15. MINERAL RESOURCES

This EIR chapter describes existing mineral resources at the Project site. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts and describes potential impacts that could result from the Project.

15.1 SETTING

Information related to mineral resources was obtained from the "Mines Online" resource on the California Department of Conservation, Division of Mine Reclamation website. The following website was used to obtain information about mineral resources in Monrovia (California Department of Conservation 2017):

http://maps.conservation.ca.gov/mol/index.html

According to the California Department of Conservation, Division of Mine Reclamation, the City of Monrovia has no active mines in the City (California Department of Conservation 2018). Additionally, there are no proposals for new mining operations in the City; as there are no lands zoned for mining activities in the City.

15.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts on mineral resources that could result from Project implementation.

15.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items XII (a) and (b), implementation of the Project would have a significant impact related to mineral resources if it would:

(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

(b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

15.2.2 Environmental Impacts

The Project area does not contain any active mines or known mineral resources that would require preservation and/or be impacted via Project implementation. Therefore, there would be no impacts on mineral resources.

Mitigation Measures

No mitigation measures are required.

15.2.3 Impact Conclusions

The Project would have no impact on mineral resources and no mitigation is required.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report

References Cited

California Department of Conservation

2017 Mines Online. Sacramento, CA. Accessed December 3, 2018. Available at http://maps.conservation.ca.gov/mol/index.html.

2018 SMARA Statutes & Associated Regulations. Sacramento, CA. Accessed December 3, 2018. Available at http://www.conservation.ca.gov/dmr/lawsandregulations/Pages/SMARA.aspx.

16. NOISE AND VIBRATION

This EIR Chapter provides pertinent background information on the nature of sound transmission, describes the existing noise environment in the Project area, summarizes applicable noise guidelines, standards, and regulations, evaluates potential noise impacts that could result from the Project and, where necessary, includes mitigation measures that would avoid or reduce the Project's potentially significant noise and vibration impacts.

16.1 ENVIRONMENTAL SETTING

16.1.1 Existing Setting

Fundamentals of Environmental Acoustics

Noise is generally defined as unwanted sound and is widely recognized as a form of environmental degradation. Airborne sound is the rapid fluctuation of air pressure above and below atmospheric pressure. The frequency (pitch), amplitude (intensity or loudness), and duration of a sound all contribute to the effect on a listener, or receptor, and whether or not the receptor perceives the sound as "noisy" or annoying.

Pitch is the height or depth of a tone or sound and depends on the frequency of the vibrations by which it is produced. Sound frequency is expressed in terms of cycles per second, or Hertz (Hz). Humans generally hear sounds with frequencies between 20 and 20,000 Hz and perceive higher frequency sounds, or high pitch noise, as louder than low-frequency sound or sounds low in pitch. Sound intensity or loudness is a function of the amplitude of the pressure wave generated by a noise source combined with the reception characteristics of the human ear. Atmospheric factors and obstructions between the noise source and receptor also affect the loudness perceived by the receptor. Sound pressure levels are typically expressed on a logarithmic scale in terms of decibels (dB). A dB is a unit of measurement that indicates the relative amplitude (i.e., intensity or loudness) of a sound, with 0 dB corresponding roughly to the threshold of hearing for the healthy, unimpaired human ear.

Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dBs represents a ten-fold increase in acoustic energy, while 20 dBs is 100 times more intense, 30 dBs is 1,000 times more intense, etc. In general, there is a relationship between the subjective noisiness or loudness of a sound and its intensity, with each 10 dB increase in sound level perceived as approximately a doubling of loudness. Due to the logarithmic basis, decibels cannot be directly added or subtracted together using common arithmetic operations:

$$50\ decibels + 50\ decibels\ \neq 100\ decibels$$

Instead, the combined sound level from two or more sources must be combined logarithmically. For example, if one noise source produces a sound power level of 50 dBA, two of the same sources would combine to produce 53 dB as shown below.

$$10 * \ 10\ log\left(10^{\left(\frac{50}{10}\right)} + \ 10^{\left(\frac{50}{10}\right)}\right) = 53\ decibels$$

In general, when one source is 10 dB higher than another source, the quieter source does not add to the sound levels produced by the louder source because the louder source contains ten times more sound energy than the quieter source.

Sound Characterization

Although humans generally can hear sounds with frequencies between 20 and 20,000 Hz most of the sounds humans are normally exposed to do not consist of a single frequency, but rather a broad range of frequencies perceived differently by the human ear. In general, humans are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. Instruments used to measure sound, therefore, include an electrical filter that enables the instrument's detectors to replicate human hearing. This filter, known as the "A-weighting" or "A-weighted sound level" filters low and very high frequencies, giving greater weight to the frequencies of sound to which the human ear is typically most sensitive. Most environmental measurements are reported in dBA, meaning decibels on the A-scale. See Table 16-1 for a list common noise sources and their A-weighted noise levels.

Sound levels are usually not steady and vary over time. Therefore, a method for describing either the average character of the sound or the statistical behavior of the variations over a period of time is necessary. The continuous equivalent noise level (Leq) descriptor is used to represent the average character of the sound over a period of time. The Leq represents the level of steady-state noise that would have the same acoustical energy as the time-varying noise measured over a given time period. Leq is useful for evaluating shorter time periods over the course of a day. The most common Leq averaging period is hourly, but Leq can describe any series of noise events over a given time period.

Variable noise levels are the values that are exceeded for a portion of the measured time period. Thus, the L1, L10, L50, and L90 descriptors represent the sound levels exceeded 1%, 10%, 50%, and 90% of the time the measurement was performed. The L90 value usually corresponds to the background sound level at the measurement location.

When considering environmental noise, it is important to account for the different responses people have to daytime and nighttime noise. In general, during the nighttime, background noise levels are generally quieter than during the daytime but also more noticeable due to the fact that household noise has decreased as people begin to retire and sleep. Noise exposure over the course of an entire day is described by the day/night average sound level, DNL (or Ldn), and the community noise equivalent level, or CNEL, descriptors. Both descriptors represent the 24-hour noise exposure in a community or area. For DNL, the 24-hour day is divided into a 15-hour daytime period (7 AM to 10 PM) and a 9-hour nighttime period (10 PM to 7 AM) and a 10 dB "penalty" is added to measure nighttime noise levels when calculating the 24-hour average noise level. For example, a 45 dBA nighttime sound level would contribute as much to the overall day-night average as a 55 dBA daytime sound level. The CNEL descriptor is similar to Ldn, except that it includes an additional 5 dBA penalty for noise events that occur during the evening time period (7 PM to 10 PM). The artificial penalties imposed during DNL and CNEL calculations are intended to account for a receptor's increased sensitivity to noise levels during quieter nighttime periods.

Table 16-1: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet flyover at 1,000 feet	105	
	100	
Gas lawn mower at 3 feet	95	
	90	
Diesel truck at 50 feet at 50 mph	85	Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noise urban area, daytime	75	
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area	65	Normal speech at 3 feet
Heavy traffic at 300 feet	60	
	55	Large business office
Quiet urban daytime	50	Dishwasher next room
	45	
Quiet urban nighttime	40	Theater, large conference room
Quiet suburban nighttime	35	
	30	Library
Quite rural nighttime	25	Bedroom at night
	20	
	15	Broadcast/recording studio
	10	
	5	
Typical threshold of human hearing	0	Typical threshold of human hearing

Source: Caltrans 2013a

Sound Propagation

The energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out and travels away from the noise generating source. The strength of the source is often characterized by its “sound power level.” Sound power level is independent of the distance a receiver is from the source and is a property of the source alone. Knowing the sound power level of an idealized source and its distance from a receiver, the sound pressure level at a specific point (e.g., a property line or a receiver) can be calculated based on geometrical spreading and attenuation (noise reduction) as a result of distance and environmental factors, such as ground cover (asphalt vs. grass or trees), atmospheric absorption, and shielding by terrain or barriers.

For an ideal “point” source of sound, such as mechanical equipment, the energy contained in a sound pressure wave dissipates and is absorbed by the surrounding environment as the sound wave spreads out in a spherical pattern and travels away from the point source. Theoretically, the sound level attenuates, or decreases, by 6 dB with each doubling of distance from the point source. In contrast, a “line” source of sound, such as roadway traffic or a rail line, spreads out in a cylindrical pattern and theoretically attenuates by 3 dB with each doubling of distance from the

line source; however, the sound level at a receptor location can be modified further by additional factors. The first is the presence of a reflecting plane such as the ground. For hard ground, a reflecting plane typically increases A-weighted sound pressure levels by 3 dB. If some of the reflected sound is absorbed by the surface, this increase will be less than 3 dB. Other factors affecting the predicted sound pressure level are often lumped together into a term called "excess attenuation." Excess attenuation is the amount of additional attenuation that occurs beyond simple spherical or cylindrical spreading. For sound propagation outdoors, there is almost always excess attenuation, producing lower levels than what would be predicted by spherical or cylindrical spreading. Some examples include attenuation by sound absorption in air; attenuation by barriers; attenuation by rain, sleet, snow, or fog; attenuation by grass, shrubbery, and trees; and attenuation from shadow zones created by wind and temperature gradients. Under certain meteorological conditions, like fog and low-level clouds, some of these excess attenuation mechanisms are reduced or eliminated due to noise reflection.

Noise Effects

Noise effects on human beings are generally categorized as:

- Subjective effects of annoyance, nuisance, and/or dissatisfaction;
- Interference with activities such as speech, sleep, learning, or relaxing; or
- Physiological effects such as startling and hearing loss.

Most environmental noise levels produce subjective or interference effects; physiological effects are usually limited to high noise environments such as industrial manufacturing facilities or airports.

Predicting the subjective and interference effects of noise is difficult due to the wide variation in individual thresholds of annoyance and past experiences with noise; however, an accepted method to determine a person's subjective reaction to a new noise source is to compare it to the existing environment without the noise source, or the "ambient" noise environment. In general, the more a new noise source exceeds the ambient noise level, the more likely it is to be considered annoying and to disturb normal activities.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels when exposed to steady, single-frequency ("pure-tone") signals in the mid-frequency (1,000–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5 dB increase is generally perceived as a distinctly noticeable increase, and a 10 dB increase is generally perceived as a doubling of loudness that would almost certainly cause an adverse response from community noise receptors.

Groundborne Vibration and Noise

Vibration is the movement of particles within a medium or object such as the ground or a building. Vibration may be caused by natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humans (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources are usually characterized as continuous, such as factory machinery, or transient, such as explosions.

As is the case with airborne sound, groundborne vibrations may be described by amplitude and frequency; however, unlike airborne sound, there is no standard way of measuring and reporting amplitude. Vibration amplitudes can be expressed in terms of velocity (inches per second) or discussed in dB units in order to compress the range of numbers required to describe vibration. Vibration impacts to buildings are usually discussed in terms of peak particle velocity (PPV) in inches per second (in/sec). PPV represents the maximum instantaneous positive or negative peak of a vibration signal and is most appropriate for evaluating the potential for building damage. Vibration can impact people, structures, and sensitive equipment. The primary concern related to vibration and people is the potential to annoy those working and residing in the area. Vibration with high enough amplitudes can damage structures (such as crack plaster or destroy windows). Ground-borne vibration can also disrupt the use of sensitive medical and scientific instruments, such as electron microscopes.

Common sources of vibration within communities include construction activities and railroads. Ground-borne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities. Next to pile driving, grading activity has the greatest potential for vibration impacts if large bulldozers, large trucks, or other heavy equipment are used.

Groundborne noise is noise generated by vibrating building surfaces such as floors, walls, and ceilings that radiate noise inside buildings subjected to an external source of vibration. The vibration level, the acoustic radiation of the vibrating element, and the acoustical absorption of the room are all factors that affect potential groundborne noise generation.

Existing Noise and Vibration Environment

Located in the southern part of the City of Monrovia, the approximately 2.90-acre Project area is configured in an east-west orientation and is bounded by South Magnolia Avenue to the west, South Primrose Avenue to the east, Evergreen Avenue and Interstate-210 (I-210, or the Foothill Freeway) to the north, and West Pomona Avenue to the south. The Project area encompasses approximately one City block, with the exception of a 0.137-acre residential parcel that is located at 230 W. Evergreen Avenue on the northeastern side of the Project area and is surrounded by the Project area on the south, east, and west (see Figure 16-1).

The Project Area consists of 8 single-family residential dwelling units, two industrial buildings (one is approximately, 14,940 square-feet in size and the other is approximately 24,560), a 0.12-acre parking lot, and a 0.14-acre vacant lot.

In general, light industrial and new transit-oriented, mixed-use development border, or are proposed to border, the Project area (see Figure 16-1). The Project area is within the Station Square Transit Village. The METRO Gold Line right-of-way (ROW) and Monrovia Station are located less than 500 feet south of the Project area.

Several transit-oriented, multi-family developments have been recently completed, approved, or proposed in the Project area:

- 261-unit MODA project, located across West Pomona Avenue, directly south of the Project area (Completed)
- Monrovia Station Square South Project, located south of the METRO ROW (Approved)
- Alexan Foothills Specific Plan, located across South Magnolia Avenue, due west of the Project area (Proposed)

- 127 Pomona Mixed-Use Project, located across South Primrose Avenue, due east of the Project area (Proposed)

The closest airport to the Project is San Gabriel Valley Airport, located approximately 3.2 miles southwest of the Project.

The General Plan Noise Element identifies traffic noise on major arterial streets and the I-210 as the most pervasive source of noise in certain areas of the City. The General Plan specifically notes that residential areas south of I-210 are impacted by freeway noise. The eastbound segment of I-210 includes an approximately 12-foot high wall that runs adjacent to the Projectarea. This portion of the I-210 is elevated, approximately 20 feet above the Project area.

The General Plan Noise Element was prepared in 2002, before the METRO Gold Line began operation, and does not identify potential noise levels associated with Gold Line operation; however, the Gold Line Foothill Extension Pasadena to Montclair Final Environmental Impact Report predicted the following noise levels for east bound and west bound light rail service at residential receptor in the City:

- Eastbound Gold Line noise levels south of the ROW were predicted to be 72 DNL or less within approximately 40 feet of the eastbound track, 65 DNL or less within approximately 50 feet of the eastbound track, and less than 60 DNL approximately 100 feet of the eastbound track (METRO Gold Line Foothill Extension Construction Authority (MGLFECA) 2007, Table 3-11.6).
- Westbound Gold Line noise levels north of the ROW were predicted to be 71 DNL or less within approximately 40 feet of the westbound track, 68 DNL or less within approximately 60 feet of the westbound track, and less than 60 DNL approximately 100 feet of the eastbound track (MGLFECA 2007, Table 3-11.6).

The City's 2008 General Plan Land Use Policy 6.1 requires that new residences proposed near the I-210 and METRO railroad tracks are designed to reduce the intrusion of sound into the dwellings.

The existing ambient noise and vibration environment at and near the Project area is described in more detail below.

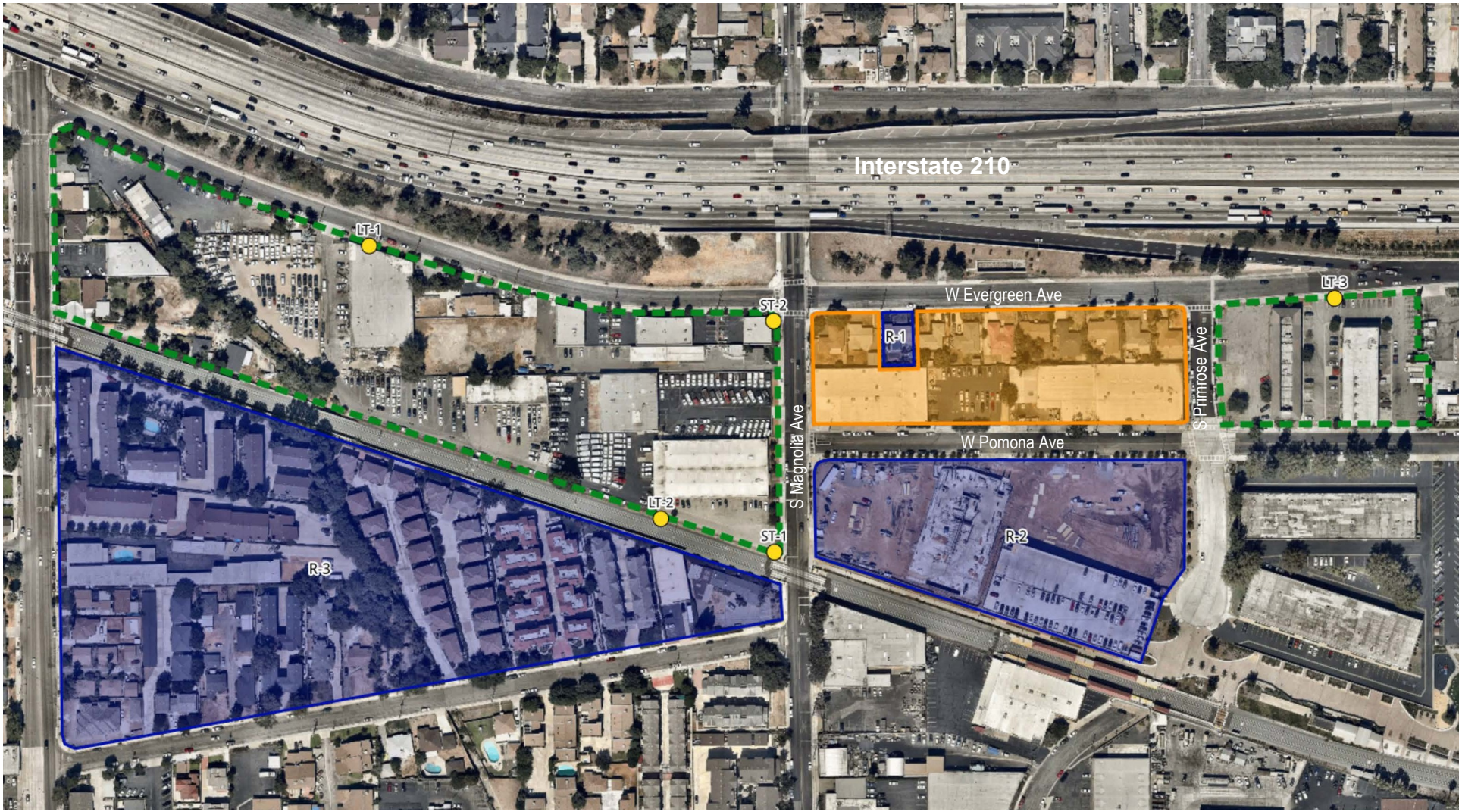


Figure 16-1: Ambient Noise Monitoring and Sensitive Receptor Locations

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Measured Ambient Noise Levels

Ambient noise level monitoring was not conducted specifically for the Project. This is because ambient noise levels were recently measured (in June 2018) within 850 feet of the Project for two proposed development projects located due east (across South Primrose Avenue) and due west (across South Magnolia Avenue) of the Project site (MIG 2018; SSA Acoustics 2018). This ambient noise monitoring data was reviewed and determined to be appropriate to characterize that of the proposed Project area.[1] The ambient noise monitoring data reviewed for this EIR included two short-term (ST) and two long-term (LT) measurements at locations selected to:

- Provide direct observations of existing noise sources at and in the vicinity of the Project area;
- Determine typical ambient noise levels at and in the vicinity of the Project area; and
- Evaluate potential project noise levels at nearby sensitive receptors.

The ambient noise monitoring locations are described below and shown on Figure 16-1.

- **Location ST-1** was at the intersection of South Magnolia Avenue and the METRO Gold Line, at the southeast corner of the project area. The ambient noise levels measured at location ST-1 are considered representative of background daytime noise levels associated with the METRO Gold Line, and traffic on South Magnolia Avenue.

- **Location ST-2** was at the intersection of South Magnolia Avenue and West Evergreen Avenue, at the northeast corner of the project area. The ambient noise levels measured at location ST-2 are considered representative of background daytime noise levels associated with the local commercial and other lands uses in the area, as well as traffic noise levels associated with West Evergreen Avenue and I-210**.**

- **Location LT-1** was on Evergreen Avenue, approximately 205 feet west of South Magnolia Avenue. The ambient noise levels measured at location LT-1 are considered representative of 24-hour ambient noise exposure levels in the northern half of the Project area.

- **Location LT-2** was adjacent to the METRO Gold Line, approximately 215 feet west of South Magnolia Avenue (as measured along the METRO ROW. The ambient noise levels measured at location LT-2 are considered representative of 24-hour ambient noise exposure levels near the southern half of the Project area.

- **Location LT-3** was on South Primrose Avenue, approximately 65 feet south of the I-210 Myrtle Avenue off-ramp, approximately 275 feet east of the Project area. The ambient noise levels measured at location LT-3 are considered representative of 24-hour ambient noise exposure levels in the northern half of the Project area.

[1] The ambient noise monitoring data reviewed was collected at locations within 850 feet of the Project area and captured the same noise sources that would impact the Project, namely vehicle traffic on I-210, West Evergreen Avenue, South Magnolia Avenue, and South Primrose Avenue and METRO Gold Line commuter rail operations. The segment of the I-210 due north of the Project siteincludes a sound wall; however, this wall extends to the east of the Project siteby approximately 200 feet and the noise reduction benefits associated with this wall are included in both short-term and one of the long-term ambient monitoring data sets reviewed for this EIR. Accordingly, it is assumed there are no significant differences in ambient noise sources in the Project area that would render the adjacent noise monitoring data uncharacteristic for environmental setting purposes.

Based on observations made during the ambient noise monitoring, the existing noise environment in the Project vicinity consists primarily of transportation noise sources, particularly vehicular traffic on I-210 and rail activity on the METRO Gold Line (MIG 2018; SSA Acoustics 2018). Table 16-2 summarizes the results of the ambient noise monitoring conducted for this EIR.

Table 16-2 Existing Ambient Noise Levels in the Project Area (dBA)

Monitoring Site	Duration	Lmin	Lmax	Leq Range			CNEL
				Daytime (7 AM - 7 PM)	Evening (7 PM - 10 PM)	Nighttime (10 PM - 7 AM)	
ST-1	30 Minutes	49.7	87.9	63.7 - 70.3	--(A)	--(A)	--(A)
ST-2	30 Minutes	60.3	79.4	66.2 - 77.4	--(A)	--(A)	--(A)
LT-1	24-Hours	47.8	92.3	64.3 - 70.3	67.0 - 73.1	62.1 - 70.0	73.5
LT-2	24-Hours	39.2	93.5	68.9 - 73.5	68.2 - 71.8	61.6 - 71.5	75.1
LT-3	24-Hours	--(A)	--(A)	61.9 – 66.6	62.9 – 66.5	61.9 – 66.3	75

Source: MIG 2018 and SSA Acoustics 2018.

(A) Data is not available for these noise metrics because noise data was not collected for the time period in question or the noise metric was not available for use in this table.

Existing METRO Gold Line Noise and Vibration Levels

The Project area is located 250 feet north of the METRO Gold Line. Rail-related noise comes from several potential sources.[2] A locomotive engine's propulsion system generates noise from mechanical and electrical systems. The interaction of wheels with the track produces various noises, particularly where the wheel encounters a flaw or defect along smooth wheel / track surfaces. Finally, train horn or bells and railroad crossing warning devices generate short but loud alerts pursuant to federal safety regulations.

The METRO Gold Line is a commuter rail line with northbound and southbound service at the Monrovia Station every 7 to 14 minutes Monday through Friday. Peak hourly weekday activity occurs during the AM and PM commuter periods when 9 eastbound and westbound trains can occur in an hour; typical service involves 4 to 5 northbound and southbound trains per hour. During the weekday, service runs nearly 20 hours a day. Weekend service also runs nearly 24 hours a day, with 3 to 5 northbound and southbound trains per hour. The METRO Gold Line crosses South Magnolia Avenue at grade, with guards and warning bells provided for safety.

During the ambient noise monitoring reviewed for this EIR, noise levels associated with the METRO Gold Line were observed to be in the range of 69 to 94 dB while passing at distance of approximately 5 to 20 feet from the center of the westbound track. The higher noise levels were associated with longer light rail trains (4 cars instead of 3 cars) accelerating westbound from the Monrovia Station. These noise levels do account for any noise attenuation or shielding that could be provided by buildings located between the METRO ROW and areas to the north or south of the ROW.

[2] This distance is as measured from the center of the Project's southwestern property line. The distance to the METRO Gold Line ROW varies from approximately 250 feet at the Project site's southwest corner to approximately 450 feet at the Project site's southeast corner.

Vibration monitoring was not conducted specifically for the Project; however, vibration monitoring was conducted in January 2018 for the Initial Study/Mitigated Negative Declaration for the adjacent South Station Square Project (City of Monrovia 2018). The vibration monitoring for the South Station Square Project was conducted approximately 525 feet from the Project site, at a distance of 20 feet from the track centerline. The results of this monitoring indicate vibration levels generated by the existing METRO Gold Line are less than 0.002 PPV and 61 VdB at a distance of 20 feet from the METRO Gold Line track centerline.

Noise Sensitive Receptors

Noise sensitive receptors are buildings or areas where unwanted sound or increases in sound may have an adverse effect on people or land uses. Residential areas, motels and hotels, hospitals and health care facilities, school facilities, and parks are examples of noise receptors that could be sensitive to changes in existing environmental noise levels. Table 16-3 summarizes the noise sensitive receptors in proximity of the Project area.

Table 16-3 Sensitive Receptor Locations

Receptor	Land Use Type	Distance and Direction from Project Area[(A)]
R-1	Single-Family Residential	230 West Evergreen Avenue (surrounded by Project area)
R-2	Multi-Family Residential (MODA at Monrovia Station)	228 West Pomona Avenue (60 feet south of Project area)
R-3	Multi-Family Residential	313 Genoa Street (350 feet southwest of Project area)
(A) Distance is as measured from the closest construction area to the sensitive receptor property line.		

As shown in Figure 16-1, the multi-family residential receptors at 313 Genoa Street do not have a line of sight to the Project at ground level. In addition, a sound wall is located on the southern side of the METRO ROW, between the receptor and the Project. Due to the distance between the Project area and this receptor, the presence of intervening buildings that shield the receptor from potential Project noise sources, and the METRO ROW sound barrier, this receptor would not be impacted by potential Project noise sources and is not discussed further in this EIR.

Additionally, as noted above, several transit-oriented, multi-family developments are proposed for development adjacent to the Project area and could be under construction during construction of the Project.

16.1.2 Regulatory Setting

Federal

Federal Transit Administration (FTA)

No federal regulations apply to noise or vibration from the Project, but the FTA's 2006 *Transit Noise and Vibration Impact Assessment* document sets ground-borne vibration annoyance criteria for general assessments. The criteria vary by the type of building being subjected to the vibrations, and the overall number of vibration events occurring each day. Category 1 buildings are considered buildings where vibration would interfere with operation, even at levels that are below human detection. These include buildings with sensitive equipment, such as research facilities and hospitals. Category 2 buildings include residential lands and buildings were people

sleep, such as hotels and hospitals. Category 3 buildings consist of institutional land uses with primary daytime uses. The FTA standards vary for "frequent" events (occurring more than 70 times per day such as a rapid transit project), "occasional" events (occurring between 30 to 70 times per day) and "infrequent" events (occurring less than 30 times per day). The FTA's vibration annoyance criteria are summarized in Table 16-4.

Table 16-4 FTA Ground-Borne Vibration Impact Criteria for General Assessment

Vibration Land Use Category/Type	Frequent Events	Occasional Events	Infrequent Events
Category 1 – Buildings with sensitive equipment	65 VdB	65 VdB	65 VdB
Category 2 – Buildings where people sleep	72 VdB	75 VdB	80 VdB
Category 3 – Institutional buildings	75 VdB	78 VdB	83 VdB
Source: FTA 2006 Note: VdB = Velocity decibel			

State

California Building Standards Code

The California Building Standards Code is contained in Title 24 of the California Code of Regulations and consists of 11 different parts that set various construction and building requirements. Part 2, California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room.

California Green Building Standards Code

The California Green Building Standards Code is Part 11 to the California Building Standards Code. Relevant sections of Chapter 5, Nonresidential Mandatory Standards are noted below:

- Section 5.507.4.1.1 sets forth that buildings exposed to a noise level of 65 dB Leq (1-hour) during any hour of operation shall have exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composting sound transmission class (STC) rating of at least 45 (or an outdoor indoor transmission class (OITC) of 35, with exterior windows of a minimum STC of 40.
- Section 5.507.4.2 sets forth that wall and roof assemblies for buildings exposed to a 65 dBA Leq pursuant to Section 5.507.4.1.1, shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed 50 dBA Leq in occupied areas during any hour of operation. This requirement shall be documented by preparing an acoustical analysis documenting interior sound levels prepared by personnel approved by the architect or engineer of record.

Caltrans

The California Department of Transportation's (Caltrans) *Transportation and Construction Vibration Guidance Manual* provides a summary of vibration criteria that have been reported by researchers, organizations, and governmental agencies (Caltrans 2013). Chapters Six and Seven of this manual summarize vibration detection and annoyance criteria from various agencies and

provide Caltrans' recommended guidelines and thresholds for evaluating potential vibration impacts on buildings and humans from transportation and construction projects. These thresholds are summarized in Table 16-5 and Table 16-6.

Table 16-5 Caltrans' Vibration Threshold Criteria for Building Damage

Structural Integrity	Maximum PPV (in/sec)	
	Transient	Continuous
Extremely fragile buildings, ruins, monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50
Source: Caltrans 2013b Note: PPV = peak particle velocity		

Table 16-6 Caltrans' Vibration Threshold Criteria for Human Response

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40
Source: Caltrans 2013b Note: PPV = peak particle velocity		

County

Section 12.08.560 of the Los Angeles County Noise Control Ordinance limits vibration levels from a source to other properties of 0.01 in/sec PPV.

Local

The City of Monrovia General Plan and Municipal Code establish standards related to noise and vibration control.

City of Monrovia General Plan

The General Plan Noise Element includes several noise control programs designed to protect the City's residents from the adverse effects of uncontrolled noise by controlling noise at it source, as well as attenuating noise between the source and the receiver. The General Plan includes the following noise control programs that are relevant to the Project (City of Monrovia 2002):

- Program No. 1: The City will continue to implement and enforce the City of Monrovia's noise ordinance for the control of unnecessary and unwanted noises. The ordinance should be enforced by the Building and Planning Department and the Police

Department. The noise ordinance enforcement program should be provided with the necessary funding and expertise to ensure its effective enforcement.

- Program No. 2: The City will extend the California Building Code (California Code of Regulations, Title 24, Part 2, Appendix Chapter 12) requirements for noise mitigation in the design and construction of new multi-family residential developments, hotels, motels, dormitories, and apartment houses to include all types of residential developments. The regulations state that: "Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either ... Ldn or ... CNEL, consistent with the noise element of the general plan." Additionally, an acoustical design analysis shall be required of any planned residential building or structure which is to be located where the exterior CNEL or Ldn exceed 60 dB. The residential design should be such that the interior living spaces are exposed to an Ldn or CNEL of no more than 45 dB. This may be accomplished by implementing a combination of the following:

  1. A reduction of the exterior noise to which the dwelling is exposed.
  2. Installing sound rated windows suitable for the noise reduction required.
  3. Configuring and insulating exterior walls and roofing systems to reduce the interior noise to acceptable levels.
  4. Locating (or eliminating) vents, mail slots, etc., to minimize sound propagation into the home.
  5. Installing forced air ventilation as needed to provide a habitable living space if the interior Ldn or CNEL level is to be met with all or some windows closed.

- Program No. 3: The City may implement a noise zoning code, defining compatible land usage requirements based on the guidelines of Figure 2. The City would require an analysis of whether or not the proposed development would be in compliance with this code. If the development falls in the CNEL or Ldn range above that indicated for the normally acceptable category, noise control design steps must be included in the project plans.

- Program No. 6: Future projects within the City will reflect a consciousness on the part of the City regarding the reduction of unnecessary noise near noise-sensitive areas such as residences, schools, parks, hospitals, libraries, and convalescent homes. Actions that can be taken to implement this program can include:

  1. Maintain liaison with transportation agencies such as Caltrans and the FHWA regarding the reduction of noise from existing facilities. The design and location of new facilities will also be considered.
  2. Consideration should be given to buffering noise-sensitive areas from noise-generating land uses.
  3. Noise monitoring within the City will be an ongoing process conducted by the appropriate departments.
  4. Ensure that the segment of the Pasadena Blue Line Extension project that would go through the City of Monrovia will be designed to meet FTA and other relevant noise criteria; close attention shall be paid to the potential adverse noise effects on residences and other noise sensitive receptors located in the vicinity of the

proposed Blue Line station near the Myrtle Avenue / Duarte Road intersection, as well along the transit route.[3]

5. Close attention shall be paid to the noise evaluation in environmental assessments, environmental impact reports and environmental impact statements.

Regarding Noise Control Program No. 3, the land use compatibility guidelines referenced in the 2002 General Plan Noise Element are reproduced in Table 16-7; however, the City has not adopted nor incorporated land use noise compatibility standards into its zoning code.

Table 16-7 General Plan Land Use Compatibility Guidelines

Land Use Category	Community Noise Equivalent Level (in dBA, CNEL)			
	Normally Acceptable	**Conditionally Acceptable**	**Normally Unacceptable**	**Clearly Unacceptable**
Residential – Low Density Single Family, Duplex, Mobile homes	≤ 60	≤ 70	≤ 75	> 75
Residential – Multi Family	≤ 65	≤ 70	≤ 75	> 75
Transient Lodging – Motels, Hotels	≤ 65	≤ 70	≤ 80	> 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	≤ 70	≤ 70	≤ 80	> 80
Auditoriums, Concert Halls, Amphitheaters	--	≤ 65	--	> 80
Sports Arenas, Outdoor Spectator Sports	--	≤ 70	--	> 70
Playground, Neighborhood Parks	≤ 70	--	≤ 75	> 75
Golf Course, Riding Stables, Water Recreation, Cemeteries	≤ 75	--	≤ 80	> 80
Office Buildings, Business Commercial and Professional	≤ 70	≤ 77.5	> 77.5	--
Industrial, Manufacturing, Utilities, Agriculture	≤ 75	≤ 80	> 80	--
Land Use Compatibility Interpretation:				
Normally Acceptable:	*Specific land use is satisfactory based upon the assumption buildings involved are of normal conventional construction, without any special noise insulation requirements.*			
Conditionally Acceptable:	*New construction or development should be undertaken only after a detailed analyses of noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.*			
Normally Unacceptable:	*New construction or development should be generally discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.*			
Clearly Unacceptable:	*New development should generally not be undertaken.*			
Source: City of Monrovia General Plan Noise Element 2002				

The General Plan Land Use Element also contains policies related to reducing the impact of noise on residential land uses (City of Monrovia 2018):

[3] The Noise Ordinance was written before the light rail extension was completed. This point is referencing the Gold Line project that was completed in 2016.

- Goal 6: Reduce the impact of noise on residential uses.

    - Policy 6.1: Residences constructed near the Foothill Freeway (I-210 Freeway) or near the railroad tracks shall be designed to reduce the intrusion of sound into the dwelling.
    - Policy 6.2: Assess the impacts of freeway noise upon existing and possible future residential uses and develop a strategy for any needed noise attenuation.
    - Policy 6.3: Assess the impacts of railroad track noise upon existing and possible future residential uses and develop a strategy for any needed noise attenuation.

City of Monrovia Municipal Code

The City's existing Municipal Code regulates unnecessary, excessive, and annoying noise and vibration generated by certain sources of noise. The City's code is intended to maintain quiet residential areas that exhibit low noise levels, and to implement programs that reduce noise in residential areas where noise levels are above acceptable values.

Municipal Code Title 9, Public Peace, Morals, and Safety, Chapter 9.44, Noise, includes the following standards related to noise:

- Section 9.44.030, General Prohibition, sets forth that it is unlawful for any person to willfully generate any loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitivity, given factors such as the volume, intensity, nature, duration, and timing of the noise.

- Section 9.44.040, Allowable Noise Levels, sets forth that no person shall create or allow the creation of noise on any residential property which causes the noise level to exceed the actual measured median ambient noise level, or the following presumed ambient noise level, whichever is greater:

    - During the daytime (7 AM to 9 PM), the allowable noise level is 55 dBA
    - During the nighttime (9 PM to 7 AM), the allowable noise level is 50 dBA

    If the intruding noise source is continuous and cannot be reasonably discontinued for sufficient time in which the ambient noise level can be determined, the presumed ambient noise level shall be used.

- Section 9.44.060, Permitted Increases in Noise Levels, sets forth that increase in the allowable noise levels described above are permitted as follows:
    - A 5 dBA increase is permitted for 15 minutes per hour
    - A 10 dBA increase is permitted for 5 minutes per hour
    - A 15 dBA increase is permitted for 1 minute per hour
    - A 20 dBA increase is permitted for less than one minute per hour.

- Section 9.44.080, Exemptions, sets forth that the following activities are exempt from the noise control provisions of the City's Municipal Code:
    - Emergency sounds
    - Noise generating activities made while performing governmental duties
    - Noise generating activities conducted on public playgrounds and public or private school grounds

- The handling of boxes, crates, containers, garbage cans, or other similar objects between the hours of 7 AM and 7 PM
- The operation of mechanically powered saws, drills, grinders, lawn or garden tool, or similar tool between 7 AM and 7 PM Monday to Friday and 10 AM and 10 PM on weekends and holidays
- Construction or demolition work conducted between the hours of 7 AM and 7 PM Monday to Friday and 9 AM and 6 PM on weekends and holidays

- Section 9.44.090, Radios, Television Sets, and Similar Devices, sets forth that it is unlawful for any person within any residential zone to use or operate any radio, musical instrument, stereo system, entertainment system, television set, or other machine or device for producing or reproducing sound between the hours of 10 PM and 7 AM in a manner that disturbs the peace, quiet, and comfort of neighboring residents or any reasonable person of normal sensitivity residing in the area.

Municipal Code Title 17, Zoning, Chapter 17.32, Performance Standards, includes the following standards related to noise and vibration:

- Section 17.32.040, Noises, sets forth that the maximum sound level radiated by any use of facility, when measured at the boundary line of the property on which the sound is generated, shall not be obnoxious by reason of its intensity, pitch or dynamic characteristics, as determined by the City.

- Section 17.32.040, Vibration, sets forth that no vibration shall be permitted which causes a noticeable tremor beyond the boundary line of the property upon which the vibration exists.

16.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to noise and vibration that could result from the Project. The Section also recommends mitigation measures as needed to reduce significant impacts.

16.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items XIII (a) through (c), implementation of the Project would have a significant impact related to noise and vibration if it would:

(a) Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of the standards established in:
- The City of Monrovia Municipal Code Title 9, Public Peace, Morals, and Safety, Chapter 9.44, Noise; or
- The City of Monrovia Municipal Code Title 17, Zoning, Chapter 17.31, Performance Standards; or
- The City of Monrovia General Plan Noise Element; or
- Other potentially applicable state or agency standards.

(b) Generate 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 airport, would expose people residing or working in the project area to excessive noise levels.

For the purposes of this EIR, the Project would result in a substantial permanent increase in ambient noise levels if it would:

- Cause the Ldn at an adjacent land use to increase by 5.0 dBA or more where noise levels would remain below the land use compatibility guidelines referenced in the 2002 General Plan Noise Element (reproduced in Table 16-7); or
- Cause the Ldn at an adjacent land use to increase by 3.0 dBA or more where noise levels would equal or exceed the land use compatibility guidelines referenced in the 2002 General Plan Noise Element (reproduced in Table 16-7).

For the purposes of this EIR, the Project would result in a substantial temporary or periodic noise impact if it would:

- Result in a 10 dB or greater increase in hourly noise levels above ambient conditions for two or more hours per day, five days a week, for a period of 12 months or more.

For temporary construction noise, the City considers construction activities resulting in a 10 dB increase in hourly noise levels above ambient conditions to be a temporary and substantial increase in noise levels, provided this increase occurs for two or more hours a day, five days a week, for more than 12 months. A 10 dB increase above existing ambient conditions is typically perceived as a “doubling” of loudness, which in limited doses would not be substantial. Prolonged exposure to project-specific construction noise levels that are twice as loud as the ambient environmental level in which the receiver is accustomed to, however, would be considered substantial, even if such noise levels occur on a temporary basis.

16.2.2 Environmental Impacts

Overview of Arroyo at Monrovia Station Specific Plan (Project)

The Arroyo at Monrovia Station Specific Plan includes numerous good neighbor features that lessen light, noise, and odor impacts on the adjacent single-family residence and the multi-family residences across West Pomona Avenue and provides new activities for nearby residents. Other good neighbor features enhance connectivity within the Monrovia Station Square neighborhood to the Gold Line station.

Below are key features from the Arroyo at Monrovia Station Specific Plan Section 2.4.3, Good Neighbor Features that pertain to noise. These good neighbor features include but are not limited to:

- Sizeable setbacks (specifically, 20’ on the east, 22’ on the south, and 40’ on the west) adjacent single-family home to create separation and buffer while allowing sunlight to shine on the adjacent residence and its yard;

- Building massing will be stepped back on the West Evergreen Avenue's top floor east of the adjacent single-family home.
- Residential units immediately east of the adjacent single-family home shall not have balconies to provide additional privacy to the single-family home and its yard.
- An 8-foot decorative masonry wall will shall be constructed at the property line between the adjacent single-family home and the project to protect the single-family home's sense of privacy from the adjacent open space.
- Dense plantings will screen views of the proposed buildings and will buffer the adjacent single-family home, thereby, further reducing the visual scale of the proposed buildings.
- Extensive tree plantings around the entire buffering setback area on three sides of the adjacent single-family home will be provided to establish a landscape vista from the home and provide another layer of privacy. Most of the plantings adjacent to the single-family home shall be evergreen to ensure year-round buffer.
- An 8-foot sound wall adjacent to the transformer and a highly landscaped 10-foot setback between the sound wall and the adjacent single-family home shall be provided to lessen transformer's operation noise and improve aesthetics.
- Passive open space, rather than active open space or recreation, shall be programmed for open space areas next to the adjacent single-family home.
- Public open space and recreation areas adjacent to the single-family home and across the street from multifamily residences shall have limited operation hours (8:00 AM to 10:00 PM).
- Noise levels shall be observed and compliance with the City of Monrovia's Noise Ordinance (MMC Chapter 9.44) will be enforced.
- HVAC and other noise-generating mechanical equipment shall be selected for its lower noise emission, air emission, and energy-saving qualities. HVAC and all other noise-generating mechanical equipment is required to be located behind sound barriers, parapets, dense landscaping, etc. to reduce noise emissions.

IMPACT NOI-1: EXPOSURE TO NOISE LEVELS THAT EXCEED STANDARDS

As shown earlier in Table 16-2, the Project area is subject to high ambient noise levels that are primarily associated with traffic noise from I-210. Ambient noise levels measured adjacent to the Project's northern property line (i.e., closest to I-210) are in the range of approximately 73 to 75 CNEL; ambient noise levels measured along the Project's southern property line (adjacent to South Magnolia Avenue) are also approximately 73 to 75 CNEL, due to noise from the I-210, South Magnolia Avenue, and the METRO Gold Line operations.[4] Although these noise levels represent existing conditions (2018), they are not expected to change substantially in the future since traffic volumes on I-210 are already substantial.

[4] Ambient noise monitoring location LT-1 and LT-3 are considered representative of the Project's northern property line (see Table 16-2). Location LT-2 is considered representative of the Project's southern property line (see Table 16-2).

As shown in Figure 3-4, the conceptual site plan for the Project includes a number of design features that would reduce noise levels at exterior building facades and corresponding interior noise levels, including:

- Building setbacks of at least 20 feet or more from all property lines including the edge of West Evergreen Avenue.
- Building orientation that limits exterior residential wall exposure to direct noise from the I-210. The current conceptual site plan shows approximately 48 total units with exterior wall exposure to the I-210 (plus an exterior roof deck). Thus, only 17% of the total available units in the Project site plan (300 units) would be subject to the worst-case noise levels at the site.
- Residential unit design that places most bedrooms on the interior of the unit and less sensitive spaces (kitchens, closets, etc.) along the exterior wall facing the I-210.
- Use of outdoor recreation space and the proposed parking garage to buffer residential units from noise associated with the I-210. Higher noise levels are generally acceptable in outdoor recreation spaces due to the shorter exposure period (i.e., non-continuous, short-term exposure) and the fact that outdoor activities are typically less sensitive to the subjective and interference effects of noise (e.g., annoyance, nuisance, interference with sleep or speech).

With the proposed building setbacks, the CNEL at the exterior building facades of the 48 units with exterior wall exposure to the I-210 would likely be in the range of 72 to 74 CNEL along the Project's northern and southern property lines. This level of noise exposure falls into the "Normally Unacceptable" exterior noise compatibility level for multi-family residential land uses identified in the General Plan. In addition, based on its current location, exterior noise levels at the proposed at-grade residential open space fronting West Evergreen Avenue would approach 75 CNEL, which is also considered a normally unacceptable noise exposure level for playgrounds and neighborhood parks by the General Plan.

Ambient noise levels greater than 70 dB CNEL in the Project area exceed the levels at which the California Building Standards Code, California Green Building Standards Code, and the General Plan require the preparation of an acoustical analysis documenting compliance with applicable interior noise standards of 45 CNEL in any habitable room (pursuant to the Section 1207.4 of the California Building Code, Part 2, Volume 1) and 50 dBA Leq (1-hour) for any occupied room (pursuant to Section 5.507.4.2 of the California Green Building Standards Code)[5].

Standard construction techniques and materials are commonly accepted to provide a minimum exterior to interior noise attenuation (i.e., reduction) of 22 to 25 dBA with all windows and doors closed, which would result in interior noise levels of approximately 49 to 52 CNEL for units fronting

[5] Part 2 of the California Building Code, Section 1207, Sound Transmission, establishes sound transmission standards for interior walls, partitions, and floor/ceiling assemblies. Specifically, Section 1207.4 establishes that interior noise levels attributable to exterior noise sources shall not exceed 45 dBA DNL or CNEL (as set by the local General Plan) in any habitable room. Chapter 5 of the California Green Building Standards Code, Section 5.507 sets forth environmental comfort/acoustical control requirements for building assemblies that are prescriptive- based (i.e., assemblies meet certain prescribed exterior to interior noise attenuation levels) or performance-based (i.e., the interior noise environment shall not exceed 50 dBA on an hourly equivalent noise level basis in occupied areas. Both the prescriptive and performance standard contained in the Green Building Standards Code apply to projects located within a 65 CNEL noise contour of an airport, freeway, railroad, industrial source, etc. or otherwise exposed to a noise level of 65 dBA on an hourly Leq basis.

the I-210 and South Magnolia Avenue[6]. Since interior noise levels would continue to exceed applicable City and State standards, this is considered a potentially significant impact.

To ensure potential exterior noise levels at the proposed residential open space and interior noise levels in habitable/occupied rooms meet applicable standards, the City shall require the Project to implement mitigation measure MM NOI-1, which requires the preparation of an acoustical analysis to document compliance with interior noise level requirements. Mitigation Measure MM NOI-1 would ensure applicable exterior and interior noise standards are met by new development within the Project area. Thus, this measure would ensure the Project would not expose people to noise levels that exceed standards and impacts would be reduced to a less than significant level.

Mitigation Measures

MM NOI-1: Confirm Compliance with Applicable Noise Standard Requirements. Prior to the issuance of a building permit for any development in the project area, the City shall review and approve a Title 24 acoustical analysis, prepared by or on behalf of the applicant, and based on the final project design, that:

1) Confirms exterior noise levels at all exterior building façade locations and exterior recreation areas, including open space areas, patios, and roof deck; and
2) Confirms the final site and building design features that would:
    a. Reduce exterior noise levels at open space areas, patios, and roof deck areas to less than 75 CNEL (e.g., plexiglass or other screening walls); and
    b. Attenuate exterior building façade noise levels to interior levels that do not exceed 45 CNEL in habitat rooms and 50 dBA Leq (1-hour) in other occupied rooms. Potential noise insulation site and building design features capable of achieving this requirement may include, but are not limited to:
        - Sound barriers
        - Enhanced exterior wall construction/noise insulation design
        - Use of enhanced window, door, and roof assemblies with above average sound transmission class (STC) or outdoor/indoor transmission class (OITC) values
        - Use of mechanical, forced air ventilation systems to permit a windows closed condition in residential units.

Plan Requirements and Timing: An acoustical report shall be submitted to Community Development Department (Planning and Building Divisions) for review and approval prior to the issuance of a certificate of occupancy or final sign off on construction, documenting that actual interior and exterior noise level at the locations indicated in this measure meet City and State standards. **Monitoring:** Community Development Department (Planning and Building Divisions) staff shall approve the acoustical analysis prior to the issuance of building permits.

6 The U.S. Department of Housing and Urban Development (HUD) Noise Guidebook and supplement (2009a, 2009b) includes information on noise attenuation provided by building materials and different construction techniques. As a reference, a standard exterior wall consisting of 5/8-inch siding, wall sheathing, fiberglass insulation, two by four wall studs on 16-inch centers, and 1/2-inch gypsum wall board with single strength windows provides approximately 35 dBs of attenuation between exterior and interior noise levels. This reduction may be slightly lower (2-3 dBs) for traffic noise due to the specific frequencies associated with traffic noise. Increasing window space may also decrease attenuation, with a reduction of 10 dBs possible if windows occupy 30% of the exterior wall façade.

IMPACT NOI-2: GENERATION OF A SUBSTANTIAL, PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS

Once constructed, the Project would generate noise levels from increased vehicle parking activities, stationary sources of equipment such as heating, ventilation, and air conditioning (HVAC) equipment, a back-up generator, and a fire pump, as well as noise from tenant use of outdoor recreation areas. The Project would also increase noise levels at off-site locations by increasing vehicle trips on the roadways used to access the Project. The potential noise levels generated by these activities and equipment are described below.

Parking Garage Noise

The proposed parking garage would increase noise levels in the Project area by providing additional parking capacity, reflection of sound waves, etc. Noise sources associated with the parking garage (e.g., car horns, doors slamming, cars starting, etc.) would be intermittent. These types of noises would not differ substantially from the noise generated by existing parking activities in the Project area, but the frequency of these events would increase. Potential increases in noise resulting from the new parking garage were quantified using the following equations contained in the FTA's *Transit Noise and Vibration Impact Assessment* manual (FTA 2006).

$$\mathbf{Leq(h) = SEL_{ref} + C_N - 36.5}$$

and

$$\mathbf{C_N = 10 \times \log(N_A / 1{,}000)}$$

Where:

$Leq(h)$	=	Hourly Leq at 50 feet
SEL_{ref}	=	Source Reference Level at 50 feet
C_N	=	Volume Adjustment (SEL_{ref} is based on 1,000 cars in peak activity hour)
N_A	=	Number of Automobiles per Hour

To calculate the Leq and CNEL at 50 feet from the parking garage, hourly noise levels were first calculated throughout the day using the equations above, where, according to the FTA, the SEL_{ref} for parking garages is 92 dBA.. The AM peak hour calculations conservatively accounted for 87 hourly trips, the PM peak hour calculations accounted for 116 hourly trips, and the remaining 1,199 trips were divided evenly throughout the remaining 22 hours in the day (i.e., approximately 55 average trips her hour). This methodology is considered conservative (i.e., likely to overestimate CNEL) since it likely also overestimates activity at the parking garage from the hours of 10:00 PM to 7:00 AM, when a 10 dBA penalty is applied to the hourly noise levels used to calculate the CNEL (see Section 16.1).

The results of the calculation indicate that the parking garage would result in a worst-case hourly Leq value of 47.6 dBA (during the PM peak hour activity), and a CNEL of 51.6, which is more than 20 dBA lower than the existing ambient noise levels measured in the vicinity of the Project area (73 to 75 CNEL). In general, when two noise levels are 20 dB or more apart, the lower value does not contribute significantly (less than 0.1 dB) to the total noise level. Thus, potential noise levels from the Project parking garage would comply with the standards contained in Municipal Code

Section 9.44.040 and would not result in a substantial increase in ambient noise levels in the vicinity of the Project area.

Mitigation Measures

No mitigation measures are required.

Mechanical Equipment

The proposed parking garage would be an open-air structure and would not require fresh air supply or exhaust supply fans to provide ventilation throughout the garage, including the limited subterranean parking area.

Mechanical equipment associated with the Project would include pool equipment (e.g., pumps), elevators, individual HVAC units and, potentially, a back-up generator and fire pump.

Pool and elevator equipment would be contained within electrical and machine rooms, and the HVAC units necessary to cool and ventilate the residential units would be small charge/load units contained behind a parapet wall that would direct sound upwards and away from the Project boundary.

The mechanical equipment associated with the Project would comply with the standards contained in Municipal Code Section 9.44.040 and would not result in a substantial increase in ambient noise levels in the vicinity of the Project area. Although the conceptual site plan does not identify the location of the 50 horsepower back-up generator or fire pump, this equipment would be operated only for testing and emergency purposes and equipment of this size would not generate substantial noise levels (50 horsepower equipment is similar to common, commercially available pumps and back-up generators) that could exceed the City's standards or substantially increase noise levels during the limited time this equipment would be in operation (assumed to be one hour per month).

Mitigation Measures

No mitigation measures are required.

Refuse Collection

Refuse collection services would be congregated in the center of the Project sitse, between the parking garage and residential units, with access from West Evergreen Avenue and West Pomona Avenue. This location of refuse collection services is away from nearby sensitive receptors and would be shielded by Project buildings. Thus, refuse collection services would not generate substantial noise levels at noise sensitive receptor locations.

Mitigation Measures

No mitigation measures are required.

Other Operational Noise Sources

The Project includes ground level and rooftop recreational spaces, public open spaces, and resident amenities such as a pool, pet spa, fitness center, and clubhouse. The Project's

recreational and open spaces and amenities provide residents recreation and residential services, including areas to sit, eat, and socialize. This type of anticipated activity is consistent with other land uses in the area and would not result in a substantial increase in noise levels in the immediate area. The pool would be located in the interior of the Project site, surrounded by Project residential units, and would not generate substantial off-site noise levels. Most other amenities would be located indoors and would not generate substantial off-site noise levels.

There is a single-family residence at 230 West Evergreen Avenue that would be surrounded by the Project on its east, west, and south property lines. The conceptual plan for the Project calls for the creation of a public/private recreational open space area surrounding this single-family property, and the installation of a wood fence along the shared property line between the residence and the Project. The conceptual site plan also places a dog spa, bicycle storage, and transformer in close proximity to this sensitive residential receptor. To address noise compatibility of the Project with the adjacent single-family residence, the Specific Plan includes a number of Good Neighbor features listed earlier in this section that would help to minimize noise impacts to this residence.

Although the exact noise levels at this sensitive residential receptor would be contingent on the actual use of the surrounding open space and amenities on any given day, it is likely that noise levels generated by the Project could cause or substantially contribute to noise levels that exceed the City's allowable daytime (55 dBA) and/or nighttime noise standards (50 dBA) established by the City's Municipal Code or the City's normally acceptable (60 CNEL) or conditionally acceptable (70 CNEL) land use compatibility guidelines for single-family residential land uses. Human activities (speech and recreational activities) in the open space area are not likely to exceed the assumed, existing ambient noise level at the site (72 to 74 CNEL); however, Project noise levels could nonetheless be construed as loud, unnecessary or unusual (e.g., dog spa noises) at this receptor location in violation of Section 9.44.030 of the Municipal Code. This impact is considered potentially significant.

To ensure potential Project noise levels do not exceed applicable standards at the residence at 230 West Evergreen Avenue, the City shall require the Project to implement mitigation measure MM NOI-2, which requires the applicant to either confirm that noise levels will not exceed standards, or construct a sound wall to reduce noise levels to levels that do not exceed standards. While this measure and implementation of the Specific Plan Good Neighbor features would reduce the exposure of people to a substantial increase in noise in excess of standards, this impact would be significant and unavoidable.

Mitigation Measures

MM NOI-2: Reduce On-Site Noise Levels at Single-Family Residence (230 West Evergreen Avenue). To reduce potential noise levels from the Project's recreational open space and amenity facilities at the residence at 230 West Evergreen Avenue, the applicant shall:

1) Provide additional information, confirming that the final approved site design, which indicates noise levels at the property at 230 West Evergreen Avenue would not exceed City standards contained in Chapter 9.44 of the Municipal Code which may be in the form of a letter from an acoustical consultant documenting noise levels at that property; or
2) Install a sound wall along the shared property lines with the residence at 230 West Evergreen Avenue. The height of the sound wall shall reach a minimum of 8 feet above the finished grade of the recreational open space, and may be constructed of any solid

material, provided the material has a minimum transmission loss value of 20 dBA (which would reduce noise levels from the recreation open space on the property at 230 West Evergreen Avenue by at least 10 dBA). The wall design shall be free of gaps and openings through which noise may pass and reduce the effectiveness of the wall.

Plan Requirements and Timing: The additional information regarding the final noise levels, or final wall design, shall be submitted to City Planning for review and approval prior to issuance of building permits. **Monitoring:** City Planning staff shall approve of additional information prior to issuance of building permits.

Off-Site Vehicle Traffic Noise Levels

The Project would generate traffic that would be distributed onto the local roadway system, potentially increasing noise levels along travel routes. Caltrans considers a doubling of total traffic volume to result in a three dBA increase in traffic-related noise levels (Caltrans 2013a). A noise level of less than 3 dBA is typically not perceptible to the human ear in an outdoor environment. If the Project would not result in a doubling of traffic volumes on the local roadway system, it would not result in a substantial permanent increase in traffic-related noise levels.

The Traffic Impact Statement (TIS) (see Appendix J) identifies that the Project would result in a net increase in trip generation equal to 1,107 vehicle trips (Linscott, Law, and Greenspan 2019). More than 7% of the Project's total daily vehicle trips (80 of 1,107) would occur during the PM peak hour, which provides an overall indication of the relative increase in traffic on local roadways resulting from the Project.

Based on the trip generation and trip distribution assumptions contained in the TIS, the Project would not increase total intersection turning volumes (i.e., the number of trips moving through the intersection) by more than 48 trips at any one intersection (Linscott, Law, and Greenspan 2019 Figure 7-4). This worst-case trip increase would occur at the intersection of South Myrtle Avenue and West Pomona Avenue during PM peak hour conditions and would constitute an approximately 2.5% increase in intersection volumes under existing conditions and an approximately 2.1% increase in total intersection volumes under cumulative 2022 conditions.

All other Project-related increases in traffic volumes moving through studied intersections would be less than these increases. Since the Project would not double traffic volumes on roadways in the Project vicinity, traffic noise would not increase by 3 dBA. Therefore, this impact is less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT NOI-3: GENERATION OF A SUBSTANTIAL, TEMPORARY INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF STANDARDS

The construction of the Project would generate a temporary and periodic increase in ambient noise levels over an approximately 14-month period in 2019 and 2020 from the use of heavy-duty construction equipment. The type of equipment used would include bulldozers, backhoes, a grader, a scraper, compactors/rollers, small cranes, and material handlers, lifts, and trucks. Since Project-specific construction equipment information is not available at this time, potential construction-related noise impacts can only be evaluated based on typical construction activities.

Table 16-8 presents the estimated, worst-case noise levels that could occur from operation of the typical construction equipment that would be used to develop the Project.

Construction activities associated with buildout of the residential buildings and parking structure would generate a variety of noise levels from operation of different kinds of construction equipment. Day-to-day noise levels at individual locations would vary depending on the type and amount of equipment being used on any given day. In general, construction noise levels would be highest during site preparation, grading, and excavation phases, when large pieces of earthmoving equipment would be required. Bulldozers, excavators, and graders would likely be the largest pieces of equipment operating at the same time during these phases. As a conservative approach, it is estimated up to three such pieces of equipment could be operating concurrently near a property line for an hour or two at a time. At a distance of 20 feet, the hourly Leq noise level associated with operation of a bulldozer, excavator, and grader would be approximately 94 dBA. Table 16-9 summarizes the hourly Leq noise levels that would be generated by the operation of these three pieces of equipment at sensitive receptor locations and compares these estimated noise levels against the existing ambient noise level environment.

The values presented in Table 16-9 reflect conservative (i.e., worst-case), yet realistic estimates of potential hourly Leq noise levels. The estimates assume all equipment is operating at the Project's boundary nearest the receptor location. In actuality, equipment on-site would move around the work area and would generally not be situated at the same location for more than a few hours at a time. Equipment operating further away would produce lower noise levels than those presented. Nonetheless, as shown in Table 16-9, construction activities associated with the Project are anticipated to increase hourly ambient noise levels by 10 dB or more for two or more hours per day, seven days a week, for a period of 12 months or more. This is considered a potentially significant impact.

Table 16-8 Typical Construction Equipment Noise Levels (dBA)

Equipment	Reference Noise Level at 50 Feet (Lmax)[A]	Percent Usage Factor[B]	Predicted Noise Levels (Leq) at Distance[C]					
			20 Feet	60 Feet	100 Feet	150 Feet	200 Feet	300 Feet
Backhoe	85	40	84	74	70	66	64	60
Bulldozer	80	40	89	79	75	71	69	65
Compact Roller	80	20	81	71	67	63	61	57
Concrete Mixer	85	40	89	79	75	71	69	65
Crane	85	16	85	75	71	67	65	61
Excavator	85	40	89	79	75	71	69	65
Generator	82	50	87	77	73	69	67	63
Pneumatic tools	85	50	90	80	76	72	70	66
Scraper	85	40	89	79	75	71	69	65
Delivery Truck	85	40	89	79	75	71	69	65

Sources: Caltrans 2013a and FHWA 2010.

(A) L_{max} noise levels based on manufacturer's specifications.

(B) Usage factor refers to the amount of time the equipment produces noise over the time period.

(C) Estimate does not account for any atmospheric or ground attenuation factors. Calculated noise levels based on Caltrans 2013: L_{eq} (hourly) = L_{max} at 50 feet – 20log (D/50) + 10log (UF), where: L_{max} = reference L_{max} from manufacturer or other source; D = distance of interest; UF = usage fraction or fraction of time period of interest equipment is in use.

Table 16-9 Estimated Project Construction Noise Levels

Receptor	Distance from Construction Activity	Noise Level (dBA)				
		Existing Ambient	Construction Without Barrier[A]	Ambient Plus Construction	Change[B]	Significant Impact?
R-1	20 ft	64.3 - 77.4[C]	94	94 – 94.1	**16.6 – 29.8**	**Yes**
R-2	60 ft	61.9 – 73.5[D]	82.9	82.9 – 83.4	9.9 – **21.0**	**Yes**

(A) Construction noise estimates based on concurrent operation of a bulldozer, excavator, and scraper during site preparation, grading, and excavation phases.

(B) Per the criterion outlined in Section 16.2.1, a significant temporary or periodic noise impact would occur if construction activities resulted in an increase of 10 dBA Leq or more at sensitive receptor locations. Bold values indicate an increase of more than 10 dBA above the ambient level.

(C) The Leq values measured at ST-2 and LT-1 are considered representative of ambient conditions at receptor location R-1.

(D) The Leq values measured at LT-2 and LT-3 are considered representative of ambient conditions at receptor location R-2.

To reduce noise levels during construction of the Project, the City would require the applicant and/or the applicant's contractors to implement mitigation measure MM NOI-3, which requires a construction noise plan be developed and implemented to minimize noise disturbance at adjacent sensitive receptor locations, the establishment of designated truck routes to minimize noise disturbance associated with deliveries to the site, and the installation of noise barriers between the Project area and sensitive noise receptor locations capable of reducing noise levels by 15 dBA. The resulting mitigated construction noise levels are shown in Table 16-10.

Table 16-10 Estimated Project Mitigated Construction Noise Levels

Receptor	Distance from Construction Activity	Noise Level (dBA)				
		Existing Ambient	Construction Without Barrier[A]	Ambient Plus Construction	Change[B]	Significant Impact?
R-1	20 ft	64.3 - 77.4[C]	79	79.1 – 81.2	3.8 – **14.8**	**Yes**
R-2	60 ft	61.9 – 73.5[D]	67.9	68.9 – 74.6	0.9 – 7.0	No

(A) Construction noise estimates based on concurrent operation of a bulldozer, excavator, and scraper during site preparation, grading, and excavation phases.

(B) Per the criterion outlined in Section 16.2.1, a significant temporary or periodic noise impact would occur if construction activities resulted in an increase of 10 dBA Leq or more at sensitive receptor locations. Bold values indicate an increase of more than 10 dBA above the ambient level.

(C) The Leq values measured at ST-2 and LT-1 are considered representative of ambient conditions at receptor location R-1.

(D) The Leq values measured at LT-2 and LT-3 are considered representative of ambient conditions at receptor location R-2.

As shown in Table 16-10, the noise control requirements incorporated into mitigation measure MM NOI-3 would reduce construction noise levels at sensitive receptor locations to the maximum extent feasible; however, given the close proximity of the receptor at 230 West Evergreen Avenue (R-1), Project construction could increase hourly ambient noise levels by 10 dB or more for two or more hours per day, seven days a week, for a period of 12 months or more at this location.

Although mitigation measure MM NOI-3 includes a provision to temporarily relocate the occupants of 230 West Evergreen Avenue, this relocation would be subject to negotiation by and between the applicant and the occupant of 230 West Evergreen Avenue. Therefore, the applicant cannot guarantee the effectiveness or implementation of this mitigation at this time. Thus, this impact would remain significant and unavoidable even with the implementation of feasible mitigation measures.

Mitigation Measures

MM NOI-3: Reduce Temporary Construction Noise Levels. To reduce temporary construction noise impacts on adjacent land uses, including the house located at 230 West Evergreen Avenue, the applicant or the applicant's construction contractor shall implement the following construction-period noise abatement measures:

- *Construction Activity Notification.* All residential units located within 500 feet of the construction site shall be sent a notice regarding the construction schedule for the proposed development. A sign, legible at a distance of 50 feet shall also be posted at the construction site. All notices and signs shall indicate the dates and duration of construction activities, as well as provide a telephone number where residents can enquire about the construction process and register complaints.
- *Noise Disturbance Coordinator.* A "noise disturbance coordinator" shall be established by the applicant. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. All notices that are sent to residential units within 500 feet of the construction site and all signs posted at the construction site shall list the telephone number for the disturbance coordinator.

- *Construction Traffic.* Route all construction traffic to and from the construction site via designated truck routes to the maximum extent feasible. Prohibit construction-related heavy truck traffic in residential areas where feasible.

- *Equipment Noise Controls:* The applicant and/or its construction contractor shall implement the following equipment noise control measures during all phases of construction:
  - *Mufflers*. All construction equipment shall be equipped with muffles and other suitable noise attenuation devices (e.g., engine shields).
  - *Equipment Selection.* Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than track equipment), to the maximum extent feasible.
  - *Provide Electric Hook-Ups* Electric hook-ups shall be provided to avoid the use of generators. If electric service is determined to be infeasible for the site, only whisper-quiet generators shall be used (i.e., inverter generators capable of providing variable load
- *Temporary Barriers.* During all demolition and construction activities, one or more physical barriers capable of achieving a 15 dBA reduction in predicted construction noise levels shall be installed between construction work areas and the residence at 230 West Evergreen Avenue. A physical barrier capable of achieving a 15 dBA reduction in predicted construction noise levels shall also be installed along the Project area's southern boundary during all demolition, site preparation, grading, and excavation activities. The barrier shall be a minimum of 12-feet tall. Potential options for achieving this level of attenuation would include, but are not limited to:
  - A concrete, wood, or other barrier installed at-grade (or mounted to structures located at-grade, such as K-Rail) along the Project property line. Such a wall/barrier shall consist of material that has a minimum rated transmission loss value of 25 dB (or equivalent rating) and shall contain no gaps in the structure through which noise may pass.
  - Commercially available acoustic panels or other products such as acoustic barrier blankets installed along the Project property line, building envelope or, if feasible and necessary, at or near sensitive residential receptor areas.
  - Any combination of noise barriers and commercial products capable of achieving a 15-dB reduction in construction noise levels at sensitive receptor locations.
- *Construction Sequencing:* Construction activities shall be scheduled to limit the total amount of time that work occurs within approximately 150 feet of the residence at 230 West Evergreen Avenue. Construction activities shall be sequenced to take advantage of shielding provided by proposed on-site barriers (see mitigation measure MM NOI-2) and buildings (e.g., construct buildings closest to the receptor at 230 West Evergreen Avenue first to provide shielding between the receptor and activities elsewhere in the project site).
- *Temporary Relocation of Receptor at 230 West Evergreen Avenue.* The occupant(s) of the property at 230 West Evergreen Avenue shall be offered the option to temporarily relocate to off-site accommodations during all demolition, earthmoving, excavation, and other construction activities occurring within 150 feet of the residence at 230 West Evergreen Avenue. If such relocation services are accepted by the occupants, a construction sound wall shall not be required for the property at 230 West Evergreen Avenue because this location would no longer occupied by a sensitive receptor.

Plan Requirements and Timing: This measure shall be printed on all construction drawings and included in construction contracts. **Monitoring:** City Community Development staff shall ensure that this measure is located on final construction drawings. City Community Development staff shall conduct inspections during construction to ensure that measures are implemented.

IMPACT NOI-4: EXPOSE PEOPLE TO OR GENERATE EXCESSIVE GROUNDBORNE VIBRATION OR NOISE

Construction of the Project would require the use of heavy construction equipment that could produce groundborne vibration. Once operational, the Project would not result in the use of equipment or machinery that could generate significant groundborne vibration; however, the Project is situated just north of the METRO Gold Line ROW and trains travelling within the ROW would generate groundborne vibration. The following analysis evaluates if construction of the Project would generate excessive groundborne vibration levels. The analysis also evaluates if new residential receptors within the Project area would be exposed to excessive groundborne vibration from the operation of the METRO Gold Line.

Construction Vibration

Site preparation, grading, foundation construction, and other construction activities could result in groundborne vibration that would, at worst case, occur approximately 25 feet from the existing structure at 230 West Evergreen Avenue (Receptor R-1). Table 16-11 lists the groundborne vibration levels associated with the potential type of construction equipment that would most likely be required while undertaking construction in the Project area.

Table 16-11 Estimated Project Construction Groundborne Vibration Levels

Equipment	Peak Particle Velocity (in/sec) (A)			Velocity Decibels (VdB) (B)		
	25 feet	60 feet	100 feet	25 feet	60 feet	100 feet
Large bulldozer	0.089	0.034	0.019	87.0	75.6	68.9
Small bulldozer	0.03	0.011	0.007	58.0	46.6	39.9
Loaded truck	0.076	0.029	0.017	86.0	74.6	67.9
Jackhammer	0.035	0.013	0.008	79.0	67.6	60.9

Sources: Caltrans 2013b and FTA 2006.

(A) Estimated PPV calculated as: PPV(D)=PPV(ref)*(25/D)^1.1 where PPV(D)= Estimated PPV at distance; PPVref= Reference PPV at 25 ft; D= Distance from equipment to receiver; and n= ground attenuation rate (1.1 for dense compacted hard soils).

(B) Estimated Lv calculated as: Lv(D)=Lv(25 feet)-30Log(D/25) where Lv(D)= estimated velocity level in decibels at distance, Lv(25 feet)= RMS velocity amplitude at 25 f; and D= distance from equipment to receiver.

As shown in Table 16-11, receptors 25 feet away from construction activities could be exposed to groundborne vibration levels of up to 0.089 in/sec PPV and 87.0 VdB during operation of large bulldozers.

Based on Caltrans' transient criteria (see Table 16-6), these vibration levels would be "barely perceptible," but under no circumstances are groundborne vibration levels predicted to exceed Caltrans' vibration damage threshold criteria for older residential structures (0.5 in/sec PPV), a threshold considered protective of all nearby buildings, which are presumed to be of more recent construction and thus are not as susceptible to damage from vibration as older, unreinforced structures. In addition, potential groundborne vibration levels could exceed FTA criterion for

human perception and annoyance; however, construction activities would not occur during the night when people are sleeping.

Although groundborne vibration from construction activities may be barely perceptible at nearby sensitive receptor locations, this impact would be infrequent and short in duration (lasting a few hours or days as equipment would not operate in the same location for a prolonged amount of time), would not damage buildings or structures, would not result in long-term incompatibility with existing land uses, and would, therefore, not be excessive. Thus, this impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Exposure to Excessive Groundborne Vibration from the METRO Gold Line

The Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) requires consideration of potential METRO Gold Line vibration impacts on residential projects located within 300 feet of the Gold Line (EIR Mitigation Measure NOI-B). Accordingly, a discussion of potential METRO Gold Line vibration impacts on development in the Project area is provided below.

The Project would result in the placement of new, sensitive residential land uses no closer than 250 feet the METRO Gold Line ROW. As explained in Section 16.1.2, “Existing METRO Gold Line Noise and Vibration Levels,” vibration monitoring was not conducted for the Project; however, vibration monitoring was conducted in January 2018 for the Station Square South Specific Plan, an approximately 3.79-acre residential project located approximately 60 feet south of the Project Area (City of Monrovia 2018).

The results of the vibration monitoring conducted for the Station Square South Specific Plan indicate groundborne vibration from passing METRO Gold Line trains was below 0.002 in/sec PPV and 65 VdB. These vibration levels are below both the Los Angeles County Vibration Limit of 0.01 in/sec PPV and the FTA’s recommended vibration limit of 72 VdB for frequent events where people sleep (see Table 16-4).

The Project would be located 250 feet from the METRO ROW and, therefore would be subject to groundborne vibration levels that are substantially less than 0.002 in/sec and 72 VdB. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT NOI-5: AIRPORT-RELATED NOISE LEVELS

The closest airport to the Project area is San Gabriel Valley Airport, located approximately 3.2 miles southwest of the Project area. This public airport has one runway and does not generate substantial airport-related noise in the City of Monrovia. Development of the Project would not expose people living or working in the project area to excessive airport-related noise levels. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

16.2.3 Impact Conclusions

The Project would have less than significant vibration impacts. Long-term operational noise levels would be less than significant with implementation of mitigation measures. As shown in Table 16-10, the noise control requirements during construction, including noise barriers incorporated into mitigation measure MM NOI-3, would reduce construction noise levels at sensitive receptor locations to the maximum extent feasible; however, given the proximity of the receptor at 230 West Evergreen Avenue (R-1), project construction could increase hourly ambient noise levels by 10 dB or more for two or more hours per day, seven days a week, for a period of 12 months or more at this location. Although mitigation measure MM NOI-3 includes a provision to temporarily relocate the occupants of 230 West Evergreen Avenue, this relocation would be subject to negotiation by and between the applicant and the occupant of 230 West Evergreen Avenue. Therefore, the applicant cannot guarantee the effectiveness or implementation of this mitigation at this time. Thus, this construction noise impact would remain significant and unavoidable even with the implementation of feasible mitigation measures.

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	Decibels, A-Weighted
dBV / VdB	Decibels, Velocity
DNL / Ldn	Day-Night Noise Level
EIR	Environmental Impact Report
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HUD	United States Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning
Hz	Hertz
I-210	Interstate-210
Leq	Average / Equivalent Noise Level
Lmax	Maximum Noise Level
Lmin	Minimum Noise Level
LT	Long Term (noise measurement)
MM	Mitigation Measure
OITC	Outdoor/Indoor Transmission Class
PPV	Peak Particle Velocity
ROW	Right of Way
ST	Short Term (noise measurement)

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
STC	Sound Transmission Class
TIS	Traffic Impact Study

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17. POPULATION AND HOUSING

This EIR Chapter describes existing population and housing in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts and describes potential impacts that could result from the Project.

17.1 SETTING

The environmental and regulatory setting of the Project is described based on data provided by the U.S. Census Bureau, the Southern California Association of Governments (SCAG), and the California Department of Finance.

17.1.1 Environmental Setting

Population

Monrovia did not experience substantial population and housing growth between 1990 and 2000. According to the U.S. Census Bureau, the City's population was 35,761 in 1990 and grew by 3.3 percent to 36,929 in 2000. The City has continued to grow slowly this century (since 2000). The U.S. Census Bureau (2018) showed the City on Monrovia's population as 36,590 in 2010 (very little change since 2000). The U.S. Census Bureau estimated the City's population of 37,061 in 2017.

Population growth in the City of Monrovia is projected in SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) utilizing a comprehensive analysis of fertility, mortality, migration, labor force, housing units, and local policies such as land use plans. According to SCAG (2016), the population of Monrovia is anticipated to grow to 40,300 by 2040, while Los Angeles County as a whole is anticipated to add approximately one million residents over the same time frame.

The Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) notes that the population of the City will increase substantially more (58,805 in 2030) in large part due to the planned development of medium- and high-density residential, and mixed-use developments.

The City's 2014-2021 Housing Element (City of Monrovia 2014) projected that the population of Monrovia would be 37,700 by 2020, using SCAG's projections at that time.

The Project area has an existing population of 22 residents.

Housing

The California Department of Finance (2018) reports the number of housing units as 15,010 in the City (2018); in 2010, there were 14,473 housing units in the City. In 2017, over two-thirds (10,431) of the housing units were single detached units; about 3,500 of the units were a part of multiple unit buildings with five of more units. The City's 2014-2021 Housing Element (City of Monrovia 2014) also reported 14,470 housing units in Monrovia in 2010.

Currently, there are eight single family residences in the Project area.

Employment

SCAG (2016) reported employment in Monrovia as 19,700 in 2012 and projected employment as 23,300 in 2040.

The City's 2014-2021 Housing Element (City of Monrovia 2014) reported 17,700 jobs in Monrovia in 2008 and projected 18,200 jobs in 2020 according to SCAG projections at that time.

17.1.2 Regulatory Setting

Housing Element Law (California Government Code Article 10.6)

State Law requires each City and County to prepare and maintain a current Housing Element as part of the community's General Plan to attain a Statewide Goal of providing "decent housing and a suitable living environment for every California family." Under State Law, Housing Elements must be updated every five years and reviewed by the State Department of Housing and Community Development.

City of Monrovia 2014-2021 Housing Element

The 2014-2021 Housing Element presents Monrovia's housing plan for the planning period and contains goals, policies and implementation programs to maintain, preserve, improve and develop housing for all economic segments of the community. The following goals are included in the Housing Element:

- Goal #1: Preserve and improve the quality of existing housing and neighborhoods in Monrovia.
- Goal #2: Provide adequate housing sites to facilitate the provision of a range of housing types to meet community needs.
- Goal #3: Enhance housing affordability so that modest income households can remain an integral part of the Monrovia community.
- Goal #4: Reduce governmental constraints on the maintenance, improvement and development of housing while maintaining community character.
- Goal #5: Promote equal housing opportunities for all residents, including Monrovia's special needs populations, so that residents can reside in the housing of their choice.
- Goal #6: Promote a healthy and sustainable Monrovia through support of existing and new housing which minimizes reliance on natural resources and automobile use.

17.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to population and housing that could result from the Project. The Section also recommends mitigation measures as needed to reduce significant impacts.

17.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items XIV (a) through (b), implementation of the Project would have a significant impact related to population and housing if it would:

(a) Induce substantial unplanned population growth either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure); or

(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

17.2.2 Analysis Methodology

The population increase projected under the Project was compared with both SCAG's growth projection for the City from the 2016 RTP/SCS and what is anticipated under the Monrovia General Plan. The anticipated change of employment levels was also considered and compared.

17.2.3 Environmental Impacts

IMPACT POP-1 INDUCE SUBSTANTIAL UNPLANNED POPULATION GROWTH

A total of eight existing single family residences occur in the Project area. According to the U.S. Census Bureau (2018), the average household size in Monrovia is 2.77 persons. Therefore, the current estimated population in the Project area is approximately 22 people.

The Project includes a 302-unit, five-story apartment complex in the Arroyo at Monrovia Station Specific Plan area. According to the U.S. Census Bureau, the average persons per bedroom in Monrovia is 1.536. Given this, the Project is anticipated to accommodate approximately 630 residents based on the number and types of units including in the Specific Plan area. Statistics are provided in Table 17-1.

Table 17-1 Population Growth Expected from the Project

Type of Unit	Number of Units	Number of Bedrooms	Persons per Bedroom(A)	Expected Residents
Studios	62	62	1.536	95.2
1 bedroom	132	132	1.536	202.8
2 bedroom	108	216	1.536	331.8
Total				630
Notes: (A) Average persons per bedroom in Monrovia is 1.536				

The U.S. Census Bureau (2018) estimated the City's population of 37,061 in 2017. As discussed above, SCAG (2016) projects the City of Monrovia's population to increase to 40,300 in 2040 (an 8.7 percent increase). The Monrovia General Plan Land Use and Circulation Elements EIR (2008) notes that the population of the City will increase substantially more (to 58,805 by 2030); this would represent nearly a 60 percent increase compared to the 2017 population.

The population increase associated with the Project (630 residents) represents a 1.7 percent increase in the City's current population. This increase represents about 19.4 percent of the total anticipated population increase anticipated under the SCAG 2016 RTP/SCS and about 2.89 percent of the projected population increase under the Monrovia General Plan Land Use and Circulation Elements EIR. The 302 dwelling units represent a 2 percent increase in the number

of dwelling units in the City in 2018 (based on 15,010 dwelling units present in 2018) (Department of Finance 2018).

The population increase resulting from the Project is generally consistent with the projected increase in density and increase in transit-oriented development anticipated in the Monrovia General Plan Land Use and Circulation Elements EIR (2008) as well. The EIR states the following: "…land designated for housing will in many places be developed at a higher density than what was typical in the past in the focus areas, thus providing housing for a greater number of people per acre and providing transit-oriented development opportunities (p. 3.8-3)." The EIR goes on to state that this growth does not qualify as a significant impact to population and housing, in part due to the growth management policies and environmental regulations established by the City, as well as the State and Federal governments. The proposed Project is similar to the types of projects considered in the Land Use and Circulation Elements, including with the Station Square Transit Village. In addition, because buildout of the Project would still remain within the amount of growth projected in SCAG's 2016-2040 RTP/SCS for Monrovia, the Project would be consistent with the RTP/SCS.

Therefore, the Project would not induce substantial population growth in the area, and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT POP-2 DISPLACE PEOPLE OR HOUSING

The Project area contains a total of eight residences, all of which are planned for demolition under the proposed Arroyo at Monrovia Station Specific Plan. However, the Project would not result in displacement of a substantial number of residences given the small number of residences in the Project area.

According to the U.S. Census Bureau (2018), the average household size in Monrovia is 2.77 persons. Therefore, the estimated existing population in the Project area, based on the existing 8 single family residences, is 22. It is expected that this number of individuals would likely be able to work in nearby areas within the City without the need to find new housing and relocate. In addition, there would be a short-term increase in construction jobs during Project construction. Therefore, the Project is not anticipated to displace a substantial number of workers such that construction of replacement housing would be required.

Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

17.2.4 Impact Conclusions

The increase in dwelling units and population under the Project would be consistent and within projections in SCAG's RTP/SCS and the City's General Plan. Implementation of the Project would also not result in the displacement of a substantial number of dwelling units and/or people, but

rather, would result in a substantial net gain in the amount of housing in the community. Impacts would be less than significant.

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy

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18. PUBLIC SERVICES AND RECREATION

This EIR Chapter describes existing conditions for fire protection and emergency medical services, police protection, public schools, parks and recreation, and other public facilities serving the Project area, including libraries. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts resulting from the Project, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

18.1 SETTING

The environmental and regulatory setting of the City of Monrovia with respect to public services and recreation is described on the City of Monrovia Public Works website (City of Monrovia 2018a). The website details the streets, parks, utilities, facilities, engineering, and environmental services the City provides, a description of the setting, and is located at:

http://www.cityofmonrovia.org/your-government/public-works/about-us

18.1.1 Environmental Setting

Fire Protection and Emergency Medical Services

The Monrovia Fire and Rescue Department (MFRD) is the primary provider of fire protection, fire suppression, and emergency medical services in the City, although mutual aid agreements exist for neighboring cities and the Los Angeles County Fire Department. MFRD serves over Monrovia's residents over approximately 13.7 square miles. The MFRD has two (2) Fire Stations:

- **Station 101** – Located at 141 E. Lemon Avenue in Monrovia. This is the MFRD Headquarters location.
- **Station 102** – Located at 2055 S. Myrtle Avenue in Monrovia.

MFRD states that "it takes between 3-5 minutes for engines to arrive after a 9-1-1 call is received for a fire or medical emergency (City of Monrovia 2018b).

Wildland Fire

The City of Monrovia's Safety Element states "The greatest fire danger to the City is from wildland urban interface, where homes meet the 30- to 50-year brush growth" (City of Monrovia 2002). "The major fire threat exists in the steeper slopes of the San Gabriel Mountains to the north and their potential to sweep into the hillsides and residential foothill developments." This wildland urban interface in the northern part of developed Monrovia is the only land mapped as a High Fire Hazard Zone within the Safety Element. The Project area is separated from the High Fire Hazard Zone mapped in the Safety Element by approximately two miles of continuous development.

Likewise, the Project area is located approximately two miles from Very High Fire Hazard Severity Zones mapped by CalFIRE (Figure 18-1). The Project area is not within or adjacent to any areas of statewide responsibility mapped by CalFIRE as well.

Police Protection

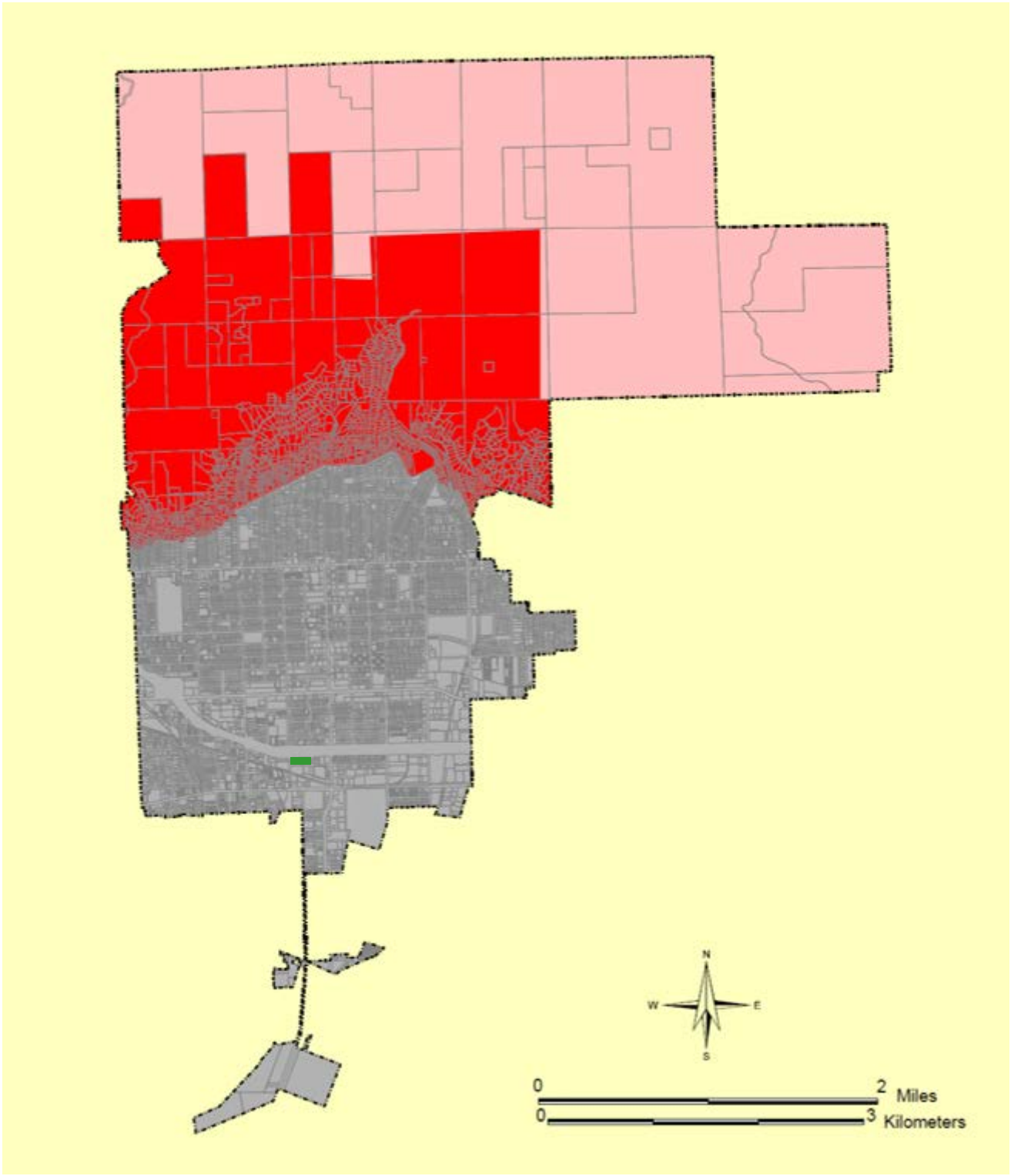
The Monrovia Police Department (MPD) provides police services in the Project area with the headquarters building located on 140 East Lime Avenue (about 1.5 miles north of the Project area) (City of Monrovia 2018c). The Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) projects that the population of Monrovia would be approximately 58,805 total residents by 2030. The EIR notes that higher density development under the General Plan will result in an increased number of calls, however, it will not increase the response times in the City, inclusive of the Project area.

Schools

The Project area is served by the Monrovia Unified School District; the district operates one pre-school, five elementary schools, two middles schools, one traditional high school, and one alternative high school (Table 18-1). The Monrovia Unified School District had a total of 5,563 students enrolled in 2017 to 2018 (California Department of Education 2018).

Table 18-1: Schools and Enrollment in Monrovia

School Name	Enrollment 2017-2018	District
Bradoaks Elementary School	462	Monrovia Unified School District
Mayflower Elementary School	524	
Monroe Elementary School	651	
Plymouth Elementary School	450	
Wild Rose Elementary School	444	
Clifton Middle School	682	
Santa Fe Computer Magnet School	527	
Monrovia High School	1,689	
Canyon Oaks High School	84	
Mountain Park School	35	
Non-Public Non-Sectarian Schools (i.e., Canyon Early Learning Center, Monrovia Community Adult School)	15	
TOTAL	5,563	
Source: California Department of Education (2018)		



Source: CAL FIRE

Figure 18-1 Very High Fire Hazard Severity Zone Map for Monrovia

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Parks and Recreation

The City of Monrovia has eight (8) parks that provide a wide array of recreation opportunities for the residents of, and visitors to, the City. Table 18-2 shows the parks, their locations and number of acres the parks covers. Overall, the City manages just over 112 acres of parklands (developed and undeveloped). The largest park is Monrovia Canyon Park, which is primarily open space with hiking trails totaling 80 acres.

The City also owns and manages the Hillside Wilderness, totaling over 1,416 acres of conserved natural area. Los Angeles County Parks maintains regional recreational facilities in adjacent communities, including Arcadia Community Regional Park, the Arboretum and Botanical Garden in Arcadia, and Pamela County Park in Duarte. Finally, Monrovia is adjacent to the Angeles National Forest, which provides thousands of acres of outdoor recreation opportunities.

Table 18-2: Parklands in Monrovia

Park Name	Location	Acres(A)
1. Julian Fisher Park	915 S. California Avenue	1.2
2. Kiwanis Park	340 N. Grand Avenue	3.5
3. Lucinda Garcia Park	502 W. Olive Avenue	1.5
4. Recreation Park	620 S. Shamrock Avenue	18.9
5. Rotary Park	401 S. California Avenue	0.9
6. Station Square Park	1629 S. Myrtle Avenue	1.7
7. Monrovia Canyon Park	1200 N. Canyon Boulevard	80
8. Library Park	321 S. Myrtle Avenue	4.6
Parks Total	32.3 – Developed Parkland 80 – Undeveloped Parkland 112.3 – Total Parkland	

Notes: Developed acres consist of parklands that have been improved including outdoor sports fields, turf fields, playgrounds, and other similar recreational amenities.

(A) Acreages were obtained from Google Earth/ArcGIS, in conjunction with the Citywide Parks Master Plan (City of Monrovia 2018f).

Los Angeles County

In 2016, Los Angeles County conducted a Park Needs Assessment for communities with the County (Los Angeles County Department of Parks & Recreation 2016). Communities were ranked from “very high” park need to “very low” based on five factors: (1) park acreage per 1,000 people; (2) percentage of population within ½ mile of a park; (3) population density around parks; (4) amenities available at the parks; and (5) park condition. The community of Monrovia was classified as having a “low park need,” and it should be noted that the assessment did not consider Monrovia Canyon Park or the Hillside Wilderness.

Libraries and Community Facilities

Monrovia Public Library is located at 321 S. Myrtle Avenue. Ten full-time and 19 part-time employees operate the library (City of Monrovia 2017). The Library Manager oversees the overall operation and an annual budget of around $1.68 million. The Monrovia Public Library

enriches lives by fostering life-long learning. This is achieved by ensuring every member of the community has access to a range of ideas and information, in a variety of formats, to meet the educational, informational, and recreational needs of the community. The library is a place for the community to meet, discover, and learn.

18.1.2 Regulatory Setting

Fire Protection and Emergency Medical Services

California Fire Code (Title 24, Part 9, California Code of Regulations)

The 2016 California Building Code (CBC) became effective January 1, 2017, including Part 9 of Title 24, the 2016 California Fire Code. The California Fire Code incorporates the Uniform Fire Code with necessary California amendments. This Code prescribes regulations consistent with nationally recognized good practices for the safeguarding, to a reasonable degree, of life and property from the hazards of fire. It also addresses dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; conditions hazardous to life or property in the use or occupancy of buildings or premises; and provisions to assist emergency response personnel. The CBC requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency in a Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, comply with all sections of the Chapter.

California Health and Safety Code (Sections 13000 et seq.)

This Code establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

City of Monrovia General Plan, Safety Element

The following policies from the Safety Element are relevant to fire services and the Project.

- **Policy 3.1.2 -** Landscape materials for the coverage and stabilization of graded slopes shall be selected to be compatible with surrounding natural vegetation and shall recognize climatic, soil, exposure, and ecological characteristics of the site. Plant materials that require substantial water after becoming established shall be avoided. Native dry climate grasses and other xerophytic materials shall be selected wherever feasible. (Fire Department approval required).

- **Policy 3.1.3 -** Cantilevered construction, including stairs, balconies, porches, open structure under buildings shall be fire retardant construction and shall be protected by fire sprinklers, when applicable, which have been reviewed and approved by the Fire Department.

- **Policy 3.1.5 -** New roofs shall be class "All non-flammable materials."

- **Policy 3.1.7 -** Fire hydrants shall be provided and located within 300 feet of structures except where a greater distance is allowed by the Fire Chief in conjunction with the installation of automatic fire sprinklers. All water main installations will be "looped" with no dead-end main allowed.

- **Policy 3.2.1 -** Enforce installation of fire alarm systems and or sprinklers to provide protection to life and property.

- **Policy 3.2.2 -** Enforce regulations requiring smoke detectors in all structures.

Police Protection

City of Monrovia General Plan, Safety Element

- **Objective 4.1 -** Maximize the efficiency of City's Office of Emergency Services (O.E.S.) System

Schools

Education Code Section 17620

Education Code Section 17620 allows school districts to assess fees on new residential and commercial construction within their respective boundaries. These fees can be collected without special City or County approval, to fund the construction of new school facilities necessitated by the impact of residential and commercial development activity. In addition, these fees can also be used to fund the reconstruction of school facilities or reopening schools to accommodate development-related enrollment growth. Fees are collected immediately prior to the time of the issuance of a building permit by the City or the County.

Leroy F. Green School Facilities Act (1998)

California Government Code Section 65995 (The Leroy F. Green School Facilities Act of 1998) sets base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the District over time as conditions change.

Parks and Recreation

State Public Park Preservation Act (California Public Resource Code Section 5400 – 5409)

The State Public Park Preservation Act is the primary instrument for protecting and preserving parkland in California. Under the act, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This ensures a no net loss of parkland and facilities.

Quimby Act (1975)

The Quimby Act allows cities and counties to adopt park dedication standards/ordinances requiring developers to set aside land, donate conservation easements, or pay in lieu fees towards parklands.

Library Services

There are no Federal, State, or local mandatory regulations that pertain to library services.

18.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to public services and recreation that could result from implementation of The Arroyo at Monrovia Station Specific Plan and recommends mitigation measures as needed to reduce significant impacts.

18.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items XV (a), and XVI (a) and (b), implementation of the Project would have a significant impact related to public services, as well as recreation, if it would:

Public Services (Item XV):

(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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 any of the following public services:

- Fire Protection and Emergency Medical Service
- Police Protection
- Public Schools
- Parks
- Libraries or other Public Facilities

Recreation (Item XVI):

(b) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;

(c) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

In addition, based on the CEQA Guidelines, Appendix G: Items IX (f) and (g), and XX (a) through (d), implementation of the Project would have a significant impact related to wildland fire management if it would:

Hazards (Items IX):

(f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan (see also Appendix G: Items XX [a]); or

(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

In addition, for areas located in or near state responsibility areas or lands classified as very high fire hazard severity zones, based on the CEQA Guidelines, Appendix G: Items XX (b) through (d), implementation of the Project would also have a significant impact related to wildland fire management if it would:

Wildland Fire (Items XX):

(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;

(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or

(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.

18.2.2 Environmental Impacts

IMPACT PS-1 FIRE PROTECTION SERVICES

The MRFD staff have reviewed and commented on the proposed Arroyo at Monrovia Station Specific Plan along with City Planning staff review to ensure proper access and response times to the area. The Specific Plan has been designed to be consistent with the MRFD's required development standards and the MRFD review and approval of plan sets during plan check conducted during the building permit process. The Project does not include any component, such as a road closure, that would extend response times within the City. The streets around the Project would continue to be open and allow for emergency vehicles to pass unimpeded and thus would not increase response times. The increase in population of 630 residents could result in an increase in the number of EMS calls in the service area. However, the proposed population increase is consistent with the 2008 Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008) and the Project Applicant would be required to pay development impact fees listed as standard condition SC PS-1 below, commensurate with the proposed scale of development, prior to receipt of building permits. Therefore, impacts on fire protection services would be less than significant.

Standard Conditions

SC PS-1: The Project applicant shall pay a fire impact fee, as required by Municipal Code Section 3.46.040, Schedule of Fees and Service Charges. This fee shall either be paid directly to the City prior to the issuance of building permits or be incorporated into the overall Communities Facilities District (CFD) fee to be paid by the applicant, as established by the City of Monrovia and to the satisfaction of the City. **Requirement and Timing**: Development impact fee shall be paid prior to issuance of building permits. **Monitoring**: City Community Development (Planning and Building Divisions) staff shall confirm payment of development impact fees prior to issuance of building permits.

Mitigation Measures

No mitigation measures are required.

IMPACT PS-2 POLICE SERVICES

The Project is not anticipated to increase response times for police services; however the number of calls for police services could increase given the anticipated population increase of 630 residents. However, because the Project would result in overall population growth consistent with the City's General Plan, impacts on police services are anticipated to be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT PS-3 SCHOOL SERVICES

According to the Monrovia Unified School District service maps, the Project area would be served by Wild Rose Elementary School, Santa Fe Middle School, and Plymouth High School. The Project would result in incremental population growth and potential associated growth in the student population within the Monrovia Unified School District.

The U.S. Census Bureau Community Survey estimates that 17% of the population of Monrovia is between the ages of five and 19 (roughly the ages of the K-12 population; U.S. Census Bureau 2016). The Project is estimated to house 630 new residents under The Arroyo at Monrovia Station Specific Plan. Using this as an assumption, the Project would add 117 youth in the K-12 age range to the Monrovia Unified School District facilities. This would result in a maximum estimate of 9 students per grade from the Project.

Table 18-3 summarizes the projected addition of students to each school serving the Project area.

Table 18-3 Projected Additional Students under the Arroyo at Monrovia Station Specific Plan

School	New Students from the Arroyo at Monrovia Station Specific Plan
K-5 Wild Rose Elementary	54
Grades 6-8 Santa Fe Middle School	27
Monrovia High School	36
Total	**117**

The estimated number of students from the Project is a high estimate given the relatively large number of studios and one-bedroom units which would likely house single residents or couples with no children. Additionally, some parents or guardians would likely send their children to private schools. In addition, the number of new students would be introduced to area schools over time.

According to the Monrovia General Plan Proposed Land Use and Circulation Elements EIR (City of Monrovia 2008), "…the City acknowledges that new development will increase demand on school facilities, the City is precluded by Senate Bill 50 (SB 50, also known as Proposition 1A, codified in Government Code Section 65995) from considering this a significant impact for the purposes of CEQA…the environmental impacts of construction and operation of additional school

facilities will be evaluated by the Monrovia Unified School District when planning for the construction of new or expanded school facilities." The Monrovia Unified School District did not submit comments during the scoping period for the EIR, nor did the School District respond to inquiries regarding capacity during preparation of this EIR. The Project could cause nearby schools to near or exceed capacity. Impacts would be potentially significant and adverse. However, in accordance with California Government Code and the Monrovia Unified School District and as indicated in standard condition SC PS-2, applicants must pay standard school facility development impact fees to offset any incremental impacts of buildout of the Project on existing school facilities. According to AB 2926, payment of development impact fees constitutes full mitigation for impacts to school facilities. Therefore, impacts to the school facilities would be less than significant with implementation of this condition.

Standard Conditions

SC PS-2: Prior to the issuance of building permits, the Project applicant shall pay school facility development impact fees to the Monrovia Unified School District. Proof of payment shall be provided to the City of Monrovia. **Requirement and Timing:** Development impact fees shall be paid prior to issuance of building permits. **Monitoring:** City Community Development (Building and Planning Divisions) staff shall confirm payment of development impact fees prior to issuance of building permits.

Mitigation Measures

No mitigation measures are required.

IMPACT PS-4 PARKS AND RECREATION

The Project does not include public recreational facilities; however, the Project includes public open space in the form of public plazas (see Site Plans contained in Appendix L). The public open space provided by the Project would partially reduce the need for use of offsite recreational facilities; however, it is anticipated that an increase in the use of offsite recreational facilities by residents of the Project would still occur. This would be considered a potentially significant impact.

As a part of mitigation for the Monrovia General Plan Proposed Land Use and Circulation Elements (City of Monrovia 2008), the following measure was included in the EIR:

> **PS-B.** The City shall require developers of projects greater than 200 residential units to dedicate land based on the standard of 3 acres per 1,000 residents.

The Arroyo at Monrovia Station Specific Plan would be subject to this requirement. This would equate to 1.8 acres of new parkland total. The Citywide Park Master Plan (City of Monrovia 2018f), discusses future potential park acquisitions to provide parks in neighborhoods currently underserved. Seven areas in the City are identified, ranging from 0.5 to 1.0 acres in size; the plan also identifies a potential new recreational facility as the Peck Lake Wetlands Project. The Master Plan discusses partnering with Monrovia Unified School District to improve school facilities to also meet local recreational needs.

Alternatively, the City will accept payment of in lieu fees or the formation of a Community Facilities District and payment of a special tax as an option to fund City acquisition of parkland to mitigate for the potential increased demand on recreational facilities.

As such, mitigation measure MM PS-1 is required to reduce impacts on recreation to below a significant level.

Mitigation Measures

MM PS-1: Parkland Dedication Fee: The applicant shall pay an in-lieu park impact fee to provide for parkland resources consistent with General Plan policy of three acres of parkland per 1,000 residents. This fee either shall be paid directly to the City or shall be incorporated into a Community Facilities District fee to be paid by the applicant. **Requirement and Timing:** The in-lieu fee shall be paid to the City, or the establishment of the CFD along with the approval of the special tax set at the amount established by the City shall occur prior to issuance of building permits. **Monitoring:** City Community Development (Building and Planning Divisions) staff shall confirm payment of the in-lieu fee or the establishment of the CFD and the approval of the special tax prior to issuance of building permits.

IMPACT PS-5 LIBRARY SERVICES AND PUBLIC FACILITIES

The Project would result in population growth that would incrementally affect other public services such as libraries. Any incremental impact would be addressed through payment of parcel taxes (i.e., approximately $62 per year per residential unit). These tax dollars would appropriately support library services in the City and a less than significant impact would occur.

Mitigation Measures

No mitigation measures are required.

IMPACT PS-6 WILDLAND FIRE MANAGEMENT

The Project site is not located in or near a state responsibility areas or lands classified as a very high fire hazard severity zone. In addition, the Project is surrounded by development on all sides for miles, and buildout of the Project would comprise dense development, therefore resulting in minimal risk of exposure to, or generation of, wildland fires. Therefore, the Project would not increase the risk of wildland fires in these areas and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

18.2.3 Impact Conclusions

With implementation of mitigation measure MM PS-1, and payment of development impact fees (standard conditions) by the Project applicant, or the establishment of a Community Facilities District and the approval of a special tax, impacts on public services and recreation would remain less than significant or reduced to less than significant levels. Therefore, the Project would not increase the risk of wildland fires in these areas and impacts would be less than significant.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
CBC	California Building Code

CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
EMS	Emergency Medical Services
MPD	Monrovia Police Department
MFRD	Monrovia Fire and Rescue Department
MM	Mitigation Measure
O.E.S.	Office of Emergency Services
SB	Senate Bill
SC	Standard Condition
SP	Specific Plan

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19. TRANSPORTATION AND CIRCULATION

This EIR Chapter describes the existing setting for transportation and circulation in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts resulting from the Project, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

The Traffic Impact Study (TIS), prepared by Linscott, Law & Greenspan Engineers (LLG) (LLG 2019), is included in Appendix J of this EIR. The TIS is the source of the impact evaluation and mitigation measures described in this EIR Chapter.

19.1 SETTING

The environmental and regulatory setting of the City of Monrovia with respect to transportation and circulation is described in the Circulation Element of the Monrovia General Plan (2012). Pursuant to CEQA Guidelines Section 15150 (Incorporation by Reference), this document is incorporated into the EIR by reference. The General Plan Circulation Element is available for download from the City's website at:

http://www.cityofmonrovia.org/home/showdocument?id=1476

19.1.1 Environmental Setting

Regional Transportation

The City of Monrovia is located in the San Gabriel Valley of Los Angeles County (Figure 19-1, Regional Vicinity). The City is connected to the regional transportation network by Interstate-210 (I-210), which crosses the southern portion of the City in an east-west direction.

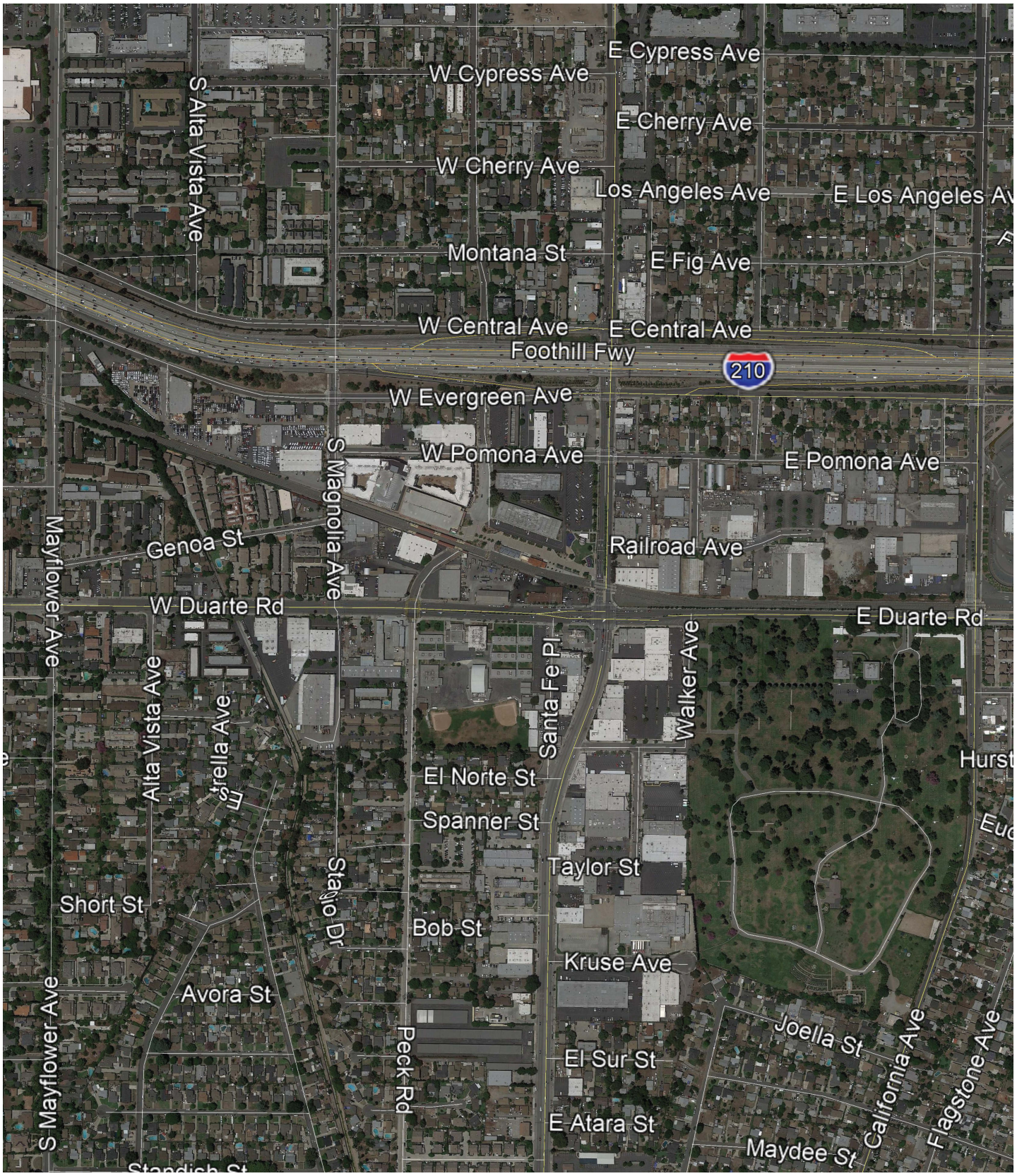
I-210 runs between eastern and northern San Fernando Valley and San Bernardino County. I-210 has five lanes in each direction in the portion through Monrovia. A full interchange (i.e., providing access in all directions) is located near the western edge of Monrovia at Huntington Drive. Full interchanges are also located at Myrtle Avenue and at Mountain Avenue, which are connected by the one-way frontage roads of Evergreen Avenue and Central Avenue.

Interstate-605 (I-605) is a north-south freeway approximately 1.5 miles east of Monrovia. This freeway runs between the northeastern San Gabriel Valley (the City of Duarte) and the City of Long Beach in southeast Los Angeles County. The segment of I-605 closest to Monrovia has four lanes in each direction. The freeway has a northern terminus at Huntington Drive and an interchange with the eastbound and westbound I-210. Partial interchanges are located east of Monrovia, at Live Oak Avenue and Arrow Highway.

Local Transportation

The Project is bound by West Evergreen Avenue to the north, South Primrose Avenue to the east, West Pomona Avenue to the south, and South Magnolia Avenue to the west (Figure 19-2).

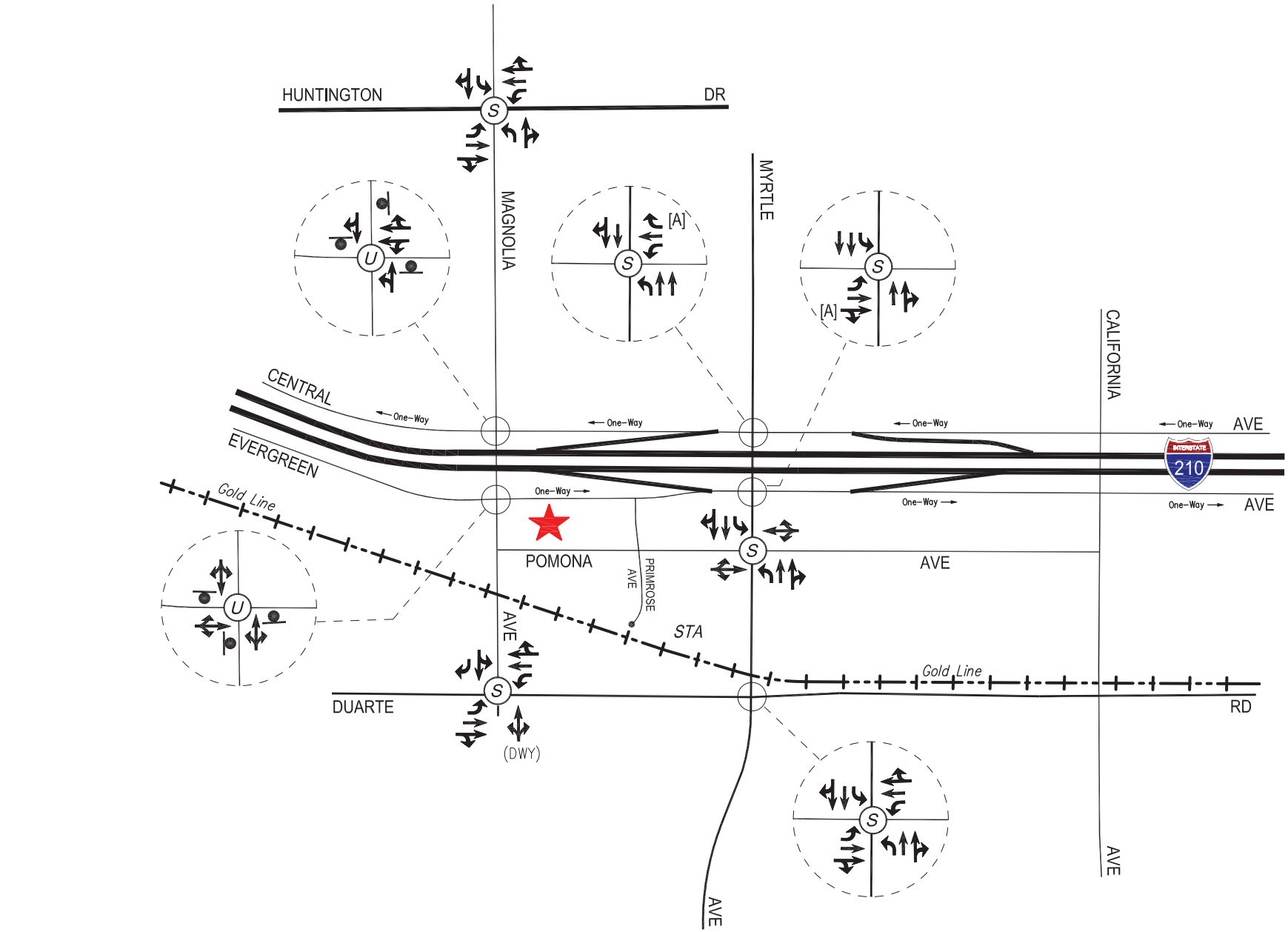
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Source: ©2019 Google

Figure 19-1: Project Vicinity

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Source: Linscott, Law and Greenspan engineers

Figure 19-2: Project Location and Study Intersections

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In the Project vicinity, Evergreen Avenue is a collector street that runs along the south side of I-210 between Mayflower Avenue and Mountain Avenue. Evergreen Avenue provides two-way travel (one lane in each directions) west of Magnolia Avenue and one-way eastbound travel east of Magnolia Avenue. Moving eastward, Evergreen Avenue has two travel lanes from Magnolia Avenue to California Avenue and three lanes of travel from California Avenue to Mountain Avenue. On- and off-ramps of eastbound I-210 intersect with Evergreen Avenue near Myrtle Avenue and Mountain Avenue. Vehicular access to the existing site is currently provided via a total of 16 existing curb cuts along the existing site frontages: with ten driveways on Evergreen Avenue and six driveways on Pomona Avenue.

Parking is generally permitted on the south side of Evergreen Avenue west of California Avenue. Parking is prohibited on the north side of Evergreen Avenue and on both sides of the street east of California Avenue. Parking is generally available on both sides of both Magnolia Avenue and West Pomona Avenue.

Existing Pedestrian, Bicycle and Transit Facilities

The Project area is currently accessible from nearby public sidewalks, bicycle network, public bus transit and rail transit.

Bicycle access to the Project area is facilitated by the City of Monrovia bicycle roadway network. The existing and proposed facilities (e.g., Class I Bicycle Path, Class II Bicycle Lanes, Class III Bicycle Route, etc.) in the City's Bicycle Master Plan are located within an approximately one-mile radius of the Project site as illustrated in Figure 19-3.

The Federal and State transportation system recognizes three primary bikeway facilities: Bicycle Paths (Class I), Bicycle Lanes (Class II), and Bicycle Routes (Class III). Bicycle paths (Class I) are exclusive car free facilities that are typically not located within a roadway area. Bicycle Lanes (Class II) are part of the street design that is dedicated only for bicycles and identified by a striped lane separating vehicle lanes from bicycle lanes. Bicycle Route (Class III) are preferably located on collector and lower volume arterials streets.

Bicycle facilities in the City's bicycle network located within an approximate one-mile radius from the Project area include:

East-West Routes

- Evergreen Avenue: Class II Bike Lane
- Pomona Avenue: Class III Bike Route
- Duarte Road: Class III Bike Route

North-South Routes

- Magnolia Avenue: Class III Bike Route
- California Avenue: Class III Bike Route

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Source: ACTV Monrovia June 2018

Figure 19-3: Existing and Planned Bikeway Network in the City of Monrovia

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Public bus transit service is currently provided by Foothill Transit and the Metropolitan Transportation Authority (METRO). The METRO Gold Line Monrovia Station is located one block south of the Project. A summary of existing transit services near the Project is presented in Table 19-1. As discussed in Chapter 3, the Project area is in a Transit Priority Area defined in CEQA as well as a High Quality Transit Area (HQTA) identified in the Southern California Association of Governments' (SCAG's) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016).

Table 19-1 Existing Transit Routes Near Project Site

Route	Destinations	Roadways Near Project Site
Foothill Transit 187	Azusa to Pasadena via Duarte, Monrovia, Arcadia and Sierra Madre	Myrtle Avenue, Huntington Drive
Foothill Transit 270	El Monte to Monrovia via Irwindale	Myrtle Avenue, Huntington Drive, Duarte Road
METRO 264	Altadena to El Monte via Pasadena, Arcadia and Duarte	Magnolia Avenue, Myrtle Avenue, California Avenue, Duarte Road
METRO Gold Line	East Los Angeles to Azusa via Downtown Los Angeles,	Monrovia Station
	Lincoln Heights, Highland Park, South Pasadena, Pasadena,	
	Arcadia, Monrovia, Duarte and Irwindale	

19.1.2 Regulatory Setting

Regional

Regional agencies, plans, and programs relevant to transportation and circulation issues in Monrovia include:

- Los Angeles County Metropolitan Transportation Authority (METRO)
- Los Angeles County METRO Active Transportation Strategic Plan (ATSP)
- Los Angeles County METRO Congestion Management Program (CMP)
- Metropolitan Transportation Commission (MTC)
- Southern California Association of Governments (SCAG) – Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS)

METRO's Long-Range Transportation Plan

The Long-Range Transportation Plan (LRTP), prepared by METRO, is the long-range plan that responds to emerging environmental challenges through the provision of new initiatives and recommendations that include driving alternatives, mobility improvements, enhanced public transit, expanded rail, and the development of major corridor projects in Los Angeles County.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) has numerous goals to increase mobility for the region's residents and visitors, and an emphasis on sustainability and integrated planning to collectively improve the region's mobility, and economy. Chapter 3 describes the RTP/SCS goals for HQTAs.

Congestion Management Plan (CMP)

Los Angeles County's Congestion Management Program (CMP) is intended to reduce the impact of local growth on the regional transportation system. Compliance with the CMP includes monitoring LOS on the CMP Highway and Roadway network, measuring public transit operation metrics, implementing the Transportation Demand Management and Land Use Analysis Program Ordinances, and assisting local jurisdictions with meeting CMP requirements. The program recommends allocation of transportation funding based on several measurable goals: traffic congestion relief, local land use actions and their impacts on transportation, and transportation control measures to meet air quality goals.

Even though the City adopted a resolution opting out of the CMP on March 19, 2019, new projects in Los Angeles County must comply with the CMP for Los Angeles County, which was first adopted by METRO in November 1995 pursuant to State law and has been periodically updated since then. The CMP involves (1) monitoring of traffic conditions and performance measures on the designated transportation network, (2) analysis of the impact of land use decisions on the transportation network, and (3) mitigation to reduce impacts on the transportation network.

Appendix D of the CMP includes guidelines for the preparation of TISs. The TIS guidelines require analysis at monitored street intersections and segments, including freeway on- and off-ramp intersections where a project is expected to add 50 or more peak-hour vehicle trips, and at mainline freeway or ramp monitoring locations where a project is expected to add 150 or more peak-hour trips.

None of the streets in Monrovia are CMP arterial monitoring locations. The nearest CMP monitoring intersections are located outside of Monrovia, including Rosemead Boulevard and Foothill Boulevard in Pasadena, and Azusa Avenue and Foothill Boulevard in Azusa.

There are seven mainline freeway segments within and near Monrovia. These include the following:

- I-210 west of Santa Anita Avenue
- I-210 west of I-605
- I-210 east of I-605
- I-605 south of I-210
- I-605 north of State Route (SR)-60
- I-10 east of Peck Road
- I-10 east of I-605

Local

Monrovia Circulation Element

The Circulation Element of the City's General Plan is the City's guide to development of Monrovia's roads and streets as well as a guide to planning pedestrian, bike, and transit routes and facilities in Monrovia. Below are relevant policies of the Circulation Element that are applicable to the Project:

- **Policy 1:1:** Regulate the intensity of land use to keep traffic on any arterial in balance with roadway capacity.
- **Policy 1:2:** Limit direct private property access to arterials, where dual access is possible, to minimize interference with through traffic.
- **Policy 1:5:** Implement traffic signal coordination on City arterial streets to the maximum extent practical and integrate signal coordination efforts with those of adjacent jurisdictions.
- **Policy 1:6:** Develop and implement intersection capacity improvements where feasible and justified by existing or projected traffic demands. Opportunities to improve intersection operations throughout the City are expected to arise as future development occurs, including the area around the planned light rail station.
- **Policy 1:7:** Design and employ traffic control measures, including signalization, limiting access, limiting on-street parking during peak periods, constructing turn lanes, and modifying lane striping and signage to ensure City streets and roads function as needed. One specific location identified for potential re-striping improvements is the eastbound segment of Huntington Drive beneath the I-210 freeway, where the roadway narrows from three through lanes to two.
- **Policy 1:9:** Improve intersection and street sections wherever possible to maintain an acceptable level of service for peak traffic flows. With the recognition that the City is largely built out and that major physical improvements to the circulation system will be limited to certain areas, establish level of service (LOS) D as the minimum standard to be maintained, except at locations where LOS F conditions currently exist. When reviewing impacts at locations where existing development constrains the ability to widen or otherwise improve roadways to achieve the desired LOS, consider improvements to pedestrian and transit facilities as acceptable traffic mitigation measures. The City has determined that a project would have a significant traffic impact under California Environmental Quality Act (CEQA) at an intersection if the conditions in Table II-1[1] were found. For the purpose of applying these significance criteria, the V/C ratio shall be reported using the Intersection Capacity Utilization (ICU) methodology. LOS at two-way stop-controlled intersections shall be based on the Highway Capacity Manual (HCM) methodology and the incremental change in volume-to-capacity (V/C) ratio calculated by analyzing such intersections with the ICU methodology assuming a two-phase signal.
- **Policy 1:10:** For daily traffic, the desired levels of service differ according to the functional classification of the street: LOS D on primary arterials (V/C < 0.90), mid-D on secondary arterials (V/C < 0.85), LOS C on collector streets (V/C < 0.80) and LOS A on local streets

[1] Table II-1 comprises the City of Monrovia's significance thresholds for intersections.

(V/C < 0.60). The City has determined that a project would have a significant traffic impact under CEQA on a street if the conditions in Table II-2[2] are met.

- **Policy 1:12:** Promote ridesharing through publicity and provision of information to the public.
- **Policy 2:2:** All street improvements should be designed with sufficient capacity to accommodate anticipated traffic volumes based on the intensity of existing and planned land use.
- **Policy 2:3:** Design and employ traffic control measures to ensure that City streets and roads function safely and efficiently.
- **Policy 2:6:** Discourage through traffic from using local collector and residential streets.
- **Policy 2:7:** Seek to maintain at least LOS E during peak hours at intersections, except at locations where LOS F currently exists.
- **Policy 2:8:** Regulate the intensity and stages of development so that traffic on any arterial remains in balance with roadway capacity.
- **Policy 2:9:** As new development or redevelopment occurs, limit driveway and alley access onto arterial streets wherever possible to enhance the quality of traffic flow.
- **Policy 2:10:** Consider locating bus turn-outs where appropriate along heavily-traveled arterials or where the lack of a turn-out would be detrimental to traffic flow.
- **Policy 2:13:** Require future dedication for widening of streets and alleys as new development occurs. Prepare and maintain a master map of right-of-way dedications to be pursued as new development proposals are considered. Establish a maintenance program for utilities in alleys (e.g., lighting), access and upgrading of existing alleys.
- **Policy 3:3:** Develop and implement safe and efficient designs to minimize the impact of at-grade arterial railroad crossings. These efforts should be coordinated with the planning for the METRO Gold Line Foothill Extension light rail project, which will affect every grade crossing in the City.
- **Policy 3:6:** Provide continuity to the sidewalk system, including wheelchair ramps, when new development occurs, to minimize pedestrian/vehicle conflicts.
- **Policy 3:7:** Expand bicycle routes where opportunities arise, and demand warrants to minimize conflicts between cyclists and motorists.
- **Policy 3:9:** In response to resident complaints, prepare studies to establish the need for speed bumps and other traffic calming devices in residential areas. Prepare neighborhood traffic protection plans as appropriate.
- **Policy 4:1:** Comply with the requirements of Americans with Disabilities Act (ADA) to ensure accessibility of elderly and disabled persons to public transportation. Continue to support Access Services, which provides ADA-compliant Para transit services (dial-a-ride service) in the City.
- **Policy 4:3:** Continue to coordinate with METRO and Foothill Transit to identify improvements to local and express bus service to Monrovia. Coordinate with these agencies to develop common standards for transit stops in the City, including seating, lighting, shelters and signage. Identify funding sources to implement the improvements determined to be necessary.

[2] Table II-2 comprises the City of Monrovia's significance thresholds for road segments.

- **Policy 4:5:** Require new development along arterial streets to provide transit facilities, such as bus shelters and turn-outs designed to established standards and specifications, where deemed necessary.
- **Policy 6:3:** Maintain existing pedestrian facilities (sidewalks and trails) and encourage new development to provide pedestrian routes to adjacent developments. Respond in a timely manner to citizen requests regarding maintenance concerns on all public pedestrian facilities.
- **Policy 6:4:** Continue to improve the accessibility of pedestrian facilities to the elderly and disabled, through such measures as construction of wheelchair ramps.
- **Policy 6:5:** Encourage the provision of an accessible and secure area for bicycle storage at all new and existing developments.
- **Policy 6:6:** Encourage provision of bicycle racks or storage facilities at public gathering places.
- **Policy 6:8:** Require new developments to provide adequate pedestrian paths on adjacent streets, including wheelchair ramps, and through the development projects, where determined to be appropriate.
- **Policy 6:9:** Continue installation of facilities accessible for disabled persons and link public facilities and commercial areas to residential neighborhoods. The use of audible warning devices at intersections along these routes should be considered.
- **Policy 8:2:** Require all new developments to provide off-street parking in compliance with the City's Zoning Code and the requirements of the ADA.

19.2 ENVIRONMENTAL EFFECTS

This Section describes potential transportation and circulation impacts that could result from the Project. The Section also recommends mitigation measures, as needed, to reduce significant impacts to less than significant levels.

19.2.1 Significance Criteria

Based on current CEQA Guidelines, Appendix G: Items XVII (a) through (d), implementation of the Project would have a significant impact on transportation and circulation if it would:

(a) Conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities;

(b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3(b);

(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

(d) Result in inadequate emergency access.

19.2.2 Analysis Methodology

Study Area Boundary

As illustrated on Figure 19-2, the traffic study area includes the following intersections:

1. Magnolia Avenue/Huntington Drive (signalized)
2. Magnolia Avenue/Central Avenue (stop-sign controlled)
3. Magnolia Avenue/Evergreen Avenue (stop-sign controlled)
4. Magnolia Avenue/Duarte Road (signalized)
5. Myrtle Avenue/Central Avenue (signalized)
6. Myrtle Avenue/Evergreen Avenue (signalized)
7. Myrtle Avenue/Pomona Avenue (signalized)
8. Myrtle Avenue/Duarte Road (signalized)

Additionally, impacts on the following I-210 ramp intersections under California Department of Transportation's (Caltrans) jurisdiction were analyzed:

- Myrtle Avenue/Central Avenue-I-210 Freeway Westbound Ramps
- Myrtle Avenue/Evergreen Avenue-I-210 Freeway Eastbound Ramps

According to Caltrans' Guide for the Preparation of Traffic Impact Studies (Caltrans 2002), analyses of Caltrans facilities should be conducted when and if a proposed project is expected to add 50 or more peak hour trips in either direction on a freeway mainline segment. Therefore, impacts of the Project on the following segments of the I-210 were also performed:

- I-210 Freeway west of Myrtle Avenue
- I-210 Freeway east of Myrtle Avenue

Performance Criteria

Intersection Criteria

The intersection capacity utilization (ICU) methodology was used to determine the peak-hour operations at signalized intersections in the study area. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of level of service (LOS), where LOS A represents free-flow activity and LOS F represents overcapacity operation. Parameters set by the City for ICU calculations - including lane capacity, right-turn treatment, and clearance interval - are incorporated into the analysis.

According to the Monrovia General Plan Circulation Element, LOS at an intersection is considered to be unsatisfactory when the ICU exceeds 0.90 (LOS D) within the City, except at locations where LOS F conditions currently exist. The relationship of ICU to LOS is demonstrated in the Table 19-2.

Table 19-2 Comparison of Level of Service (LOS) and Intersection Capacity Utilization (ICU)

LOS	ICU
A	0.00–0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00
Source: Highway Capacity Manual (Transportation Research Board 2016).	

Based on discussion with the City of Monrovia Traffic Engineer, a project impact occurs when the intersection in question exceeds the acceptable LOS of E or F, or the impact of a proposed development results in an increase of ICU of 0.04 or greater for LOS C, 0.03 or greater for LOS D, 0.02 or greater for LOS E, or 0.01 or greater for LOS F. Project mitigation will be required to achieve acceptable levels, or to achieve the baseline condition if the baseline ICU is already greater than 0.90.

In addition to the ICU methodology of calculating signalized intersection LOS, the Highway Capacity Manual (HCM 6th Edition, Transportation Resources Board 2016) methodology was used to determine the LOS at unsignalized study area intersections and signalized intersections at freeway interchanges. The HCM unsignalized and signalized intersection methodology looks at delay (in seconds per vehicle), as opposed to capacity, as the measure of effectiveness. The resulting delay is expressed in terms of LOS, much like the ICU methodology. The relationship of delay to LOS is illustrated in Table 19-3.

Table 19-3 Comparison of Level of Service (LOS) and Intersection Delay

LOS	Signalized Intersection Delay (seconds)	Unsignalized Intersection Delay (seconds)
A	≤10.0	≤10.0
B	>10.0 and ≤20.0	>10.0 and ≤15.0
C	>20.0 and ≤35.0	>15.0 and ≤25.0
D	>35.0 and ≤55.0	>25.0 and ≤35.0
E	>55.0 and ≤80.0	>35.0 and ≤50.0
F	>80.0	>50.0
Source: Highway Capacity Manual (Transportation Research Board 2016).		

The TIS for the proposed Project, consistent with City guidelines, evaluates traffic impacts based on the ICU methodology. The HCM methodology is another method to evaluate operational conditions at signalized intersections, takes into consideration signal timing, and can calculate queue lengths at turn lanes. The HCM methodology is required by the Caltrans to analyze impacts on Caltrans' ramp intersections. Acceptable LOS for Caltrans intersections is LOS D or better. Further details of the HCM methodology are contained in the original TIS in Appendix J of this EIR.

Freeway Segment Criteria

Facility types for studied roadways were taken from the City's General Plan Circulation Element. The roadway segments of Huntington Drive and Myrtle Avenue are classified as primary arterials, Duarte Road is classified as a secondary arterial, and the segments of Mayflower Avenue, Magnolia Avenue, and Evergreen Avenue are classified as collector streets. An impact analysis on City road segments was not performed for the Project.

According to the Caltrans' Guide for Preparation of Traffic Studies (Caltrans 2002), the LOS for operating State highway facilities is based upon measures of effectiveness (MOEs). For mainline freeway segments, the MOE is determined based on density in passenger cars per mile per lane (pc/mi/ln). However, in some instances the density-based methodology will yield LOS results that are not indicative of actual peak hour operations, especially under congested conditions (LLG 2019). Under such conditions, it may be more appropriate to utilize speed to measure LOS operations. Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities.

Since the maximum density for LOS C operations on a freeway mainline segment is 26 pc/mi/ln, the freeway segment is considered to be significantly impacted if the traffic associated with any development project or projects causes the facility to degrade to a density of 27 pc/mi/ln or greater (resulting in LOS D operation). However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained. Under this condition, if a freeway mainline segment is operating at LOS E with a density of 36 pc/mi/ln, then that same density value should be maintained.

Traffic Scenarios

The following traffic scenarios were analyzed for the Project:

- Existing (2018) Conditions;
- Existing Plus Project Conditions;
- Cumulative Year (2022) Conditions; and
- Cumulative Year (2022) Plus Project Conditions.

Each of these scenarios is explained in more detail below.

Existing Conditions (2018)

This scenario identifies current traffic conditions in the study area. Counts were taken at eight intersections near the Project area. Peak-hour intersection turn volumes for the study area were obtained from the City. All counts used in the traffic study were conducted on a Tuesday, Wednesday, or Thursday. Counts were collected at the time the initial TIS was prepared, between 2016 and 2018.

Time passed between the completion of the TIS and the processing of the project application. The original traffic counts were factored up to account for any potential changes that occurred between the time the counts were taken and the beginning of 2018. A regional ambient traffic

growth rate of 0.82 percent per year was added to traffic volumes to escalate the counts to the year 2018. This growth rate was obtained from the Los Angeles County Congestion Management Program.

Existing Plus Project Conditions

This scenario is used to evaluate impacts associated with the proposed Project. The analysis assumes that the existing project area land uses would be removed and replaced by the proposed Project that includes 302 dwelling units and 7,080 square feet of retail/flex space are proposed. In addition, a combined internal capture/pass-by adjustment factor of 25 percent has been conservatively applied to the retail traffic generation forecast only. Furthermore, a transit adjustment factor of 25 percent has been conservatively applied to the residential traffic generation forecast, and a transit adjustment factor of 15 percent was applied to the retail traffic generation forecast after the internal/pass-by adjustments were applied.

Cumulative Year Conditions (2022)

To forecast cumulative traffic conditions, a regional ambient traffic growth rate was determined plus traffic volumes for near-future developments in the Project vicinity if they were developed, which were then added to the existing traffic counts.

To reflect regional growth in the study area, an ambient traffic growth rate of 0.82 percent per year was used to calculate year 2022 traffic volumes. This growth rate was obtained from the Los Angeles County Congestion Management Program. The list of cumulative projects was provided by the City of Monrovia Planning Division and other neighboring agencies (see the TIS in Appendix J).

Cumulative Year Plus Project Conditions (2022)

This scenario is used to evaluate cumulative impacts associated with implementation of the Project along with other proposed projects. Cumulative plus project conditions were developed by adding the Project traffic to the cumulative conditions. This scenario assumes no change in existing intersection designs (i.e., geometrics).

19.2.3 Environmental Impacts

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Existing Conditions (2018)

Table 19-4 summarizes the results of the existing AM and PM. peak-hour LOS analysis. All eight study area intersections currently operate at satisfactory LOS.

Project Trip Generation

Trip generation calculations for the Project area were based on the daily and peak-hour trip rates taken from the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition (see TIS in Appendix J). Based on discussions with the City Traffic Engineer, vehicle trip generation has been reduced by 15 to 25 percent for trip credits based on transit use. The trip credits based on transit use account for the Project's proximity to the METRO Gold Line station,

as well as to four bus stations, at Mayflower Avenue/Duarte Road and Magnolia Avenue/Duarte Road.

Existing land uses within the Project area generate 323 trips per day, including 39 trips during the AM peak hour (29 inbound and 10 outbound) and 39 trips in the PM peak hour (11 inbound and 28 outbound).

With transit use, projected trips generated under the Project would result in a trip generation of 1,402 trips per day, including 87 trips in the AM peak hour (24 inbound and 63 outbound) and 116 trips in the PM peak hour (69 inbound and 47 outbound). The total net trip generation (i.e., future Project trips minus existing trips) would add 1,107 trips per weekday to study area intersections, including 50 trips in the AM peak hour (5 fewer inbound and 55 outbound) and 80 trips in the PM peak hour (60 inbound and 20 outbound) (see Table 19-5).

Trip Distribution and Assignment

Trip distribution for the Project was based on the Project's location in relation to local and regional transportation facilities and origins/destinations, along with input and concurrence from the City Traffic Engineer.

Existing Plus Project Conditions

Table 19-4 also summarizes the results of the existing plus project AM and PM peak-hour LOS analysis, and compares those results with existing LOS conditions. For the proposed Project, it is reasonable to conclude that its design and location within the Station Square Transit Village area and proximity to the METRO Gold Line Monrovia station, would result in a significant reduction in vehicle trips as compared to the trip generation forecasts that would otherwise be calculated using the applicable and unadjusted ITE trip rates in a passively managed traffic management condition. Thus, a transit adjustment factor of 25 percent has been conservatively applied to the residential traffic generation forecast, and a transit adjustment factor of 15 percent was applied to the retail traffic generation forecast after the internal/pass-by adjustments were applied. All study area intersections would continue to operate at satisfactory LOS with the addition of traffic associated with the Project. Therefore, the impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Cumulative Year Conditions (2020)

Table 19-6 summarizes the results of the AM and PM peak-hour LOS analysis under Cumulative Conditions without the Project. As shown in Table 19-6, all study area intersections are anticipated to operate at satisfactory LOS.

Cumulative Year Plus Project Conditions (2020)

Table 19-6 summarizes the results of the Cumulative Plus Project AM and PM peak-hour LOS analysis, and compares those results with cumulative LOS conditions without the Project. With the addition of the Project, all study area intersections would continue to operate at satisfactory LOS. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Table 19-4 Existing Baseline and Existing Plus Project LOS Summary

Intersection		Existing				Plus Project				Peak-Hour Δ V/C or Delay		Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM	
1	Magnolia Avenue/Huntington Drive	0.709	C	0.742	C	0.712	C	0.745	C	0.003	0.003	No
2	Magnolia Avenue/Central Avenue (unsignalized)	13.4	B	14.1	B	13.5	B	14.3	B	0.1	0.2	-
3	Magnolia Avenue/Evergreen Avenue (unsignalized)	14.8	B	16.7	C	15.0	B	17.3	C	0.2	0.6	-
4	Magnolia Avenue/Duarte Road	0.624	B	0.590	A	0.626	B	0.594	A	0.002	0.004	No
5	Myrtle Avenue/Central Avenue	0.774	C	0.877	D	0.782	C	0.880	D	0.008	0.003	No
6	Myrtle Avenue/Evergreen Avenue	0.671	B	0.835	D	0.676	B	0.841	D	0.005	0.006	No
7	Myrtle Avenue/Pomona Avenue	0.424	A	0.534	A	0.426	A	0.552	A	0.002	0.018	No
8	Myrtle Avenue/Duarte Road	0.768	C	0.875	D	0.771	C	0.876	D	0.003	0.001	No

Source: Linscott, Law & Greenspan (2019). See Appendix J of this EIR.
Δ = change
V/C = volume-to-capacity ratio
LOS = level of service

Table 19-5 Project Trip Generation

LAND USE	SIZE		DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2] IN	AM PEAK HOUR VOLUMES [2] OUT	AM PEAK HOUR VOLUMES [2] TOTAL	PM PEAK HOUR VOLUMES [2] IN	PM PEAK HOUR VOLUMES [2] OUT	PM PEAK HOUR VOLUMES [2] TOTAL
Proposed Uses									
Apartment [3]	302	DU	1,643	28	81	109	81	52	133
Less Transit Adjustment [4]			(411)	(7)	(20)	(27)	(20)	(13)	(33)
Retail [5]	7,080	GLSF	267	4	3	7	13	14	27
Less Internal Capture/Pass-by Adjustment (25%) [6]			(67)	(1)	(1)	(2)	(3)	(4)	(7)
Less Transit Adjustment (15%) [4]			(30)	0	0	0	(2)	(2)	(4)
Subtotal Proposed Uses			**1,402**	**24**	**63**	**87**	**69**	**47**	**116**
Existing Uses to be Removed									
Single-Family Detached Housing [7]	(8)	DU	(76)	(2)	(4)	(6)	(7)	(4)	(11)
General Light Industrial [8]	(44,242)	GLSF	(219)	(27)	(4)	(31)	(4)	(24)	(28)
Subtotal Existing Uses			**(295)**	**(29)**	**(8)**	**(37)**	**(9)**	**(27)**	**(36)**
NET TOTAL PROJECT TRIPS			**1,107**	**(5)**	**55**	**50**	**60**	**20**	**80**

[1] Source: ITE "Trip Generation Manual", 10th Edition, 2017.
[2] Trips are one-way traffic movements, entering or leaving.
[3] ITE Land Use Code 221 (Multifamily Housing [Mid-Rise]) trip generation average rates.
- Daily Trip Rate: 5.44 trips/dwelling unit; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.36 trips/dwelling unit; 26% inbound/74% outbound
- PM Peak Hour Trip Rate: 0.44 trips/dwelling unit; 61% inbound/39% outbound

[4] Transit adjustments of 25 percent and 15 percent were applied to residential and retail project components, respectively, due to the proximity to the Metro Gold Line Monrovia Station located at 1675 S. Primrose Avenue. The transit adjustments were applied after the internal/pass-by adjustments were applied for the retail project component.
[5] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
- Daily Trip Rate: 37.75 trips/1,000 SF of leasable floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.94 trips/1,000 SF of leasable floor area; 62% inbound/38% outbound
- PM Peak Hour Trip Rate: 3.81 trips/1,000 SF of leasable floor area; 48% inbound/52% outbound

[6] Pass-by trips are made as intermediate stops on the way from an origin to a primary destination without a route diversion. Pass-by trips are attracted from the traffic passing the site on an adjacent street or roadway that offers direct access to the site. In addition, an internal trip adjustment was included to account for the synergistic effects between the residential and retail land use components of the proposed project. The internal capture/pass-by adjustment factor of 25 percent was applied to the retail land use component.
[7] ITE Land Use Code 210 (Single-Family Detached Housing) trip generation average rates.
- Daily Trip Rate: 9.44 trips/dwelling unit; 50% inbound/50% outbound

- AM Peak Hour Trip Rate: 0.74 trips/dwelling unit; 25% inbound/75% outbound
- PM Peak Hour Trip Rate: 0.99 trips/dwelling unit; 63% inbound/37% outbound

[8] ITE Land Use Code 110 (General Light Industrial) trip generation average rates.
- Daily Trip Rate: 4.96 trips/1,000 SF of floor area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.70 trips/1,000 SF of floor area; 88% inbound/12% outbound
- PM Peak Hour Trip Rate: 0.63 trips/1,000 SF of floor area; 13% inbound/87% outbound

Table 19-6 Cumulative Baseline and Cumulative Plus Project LOS Summary

	Intersection	Cumulative				Cumulative Plus Specific Plan				Peak-Hour Δ V/C or Delay		Significant Impact?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
		V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	AM	PM	
1	Magnolia Avenue/Huntington Drive	0.812	D	0.842	D	0.814	D	0.845	D	0.002	0.003	No
2	Magnolia Avenue/Central Avenue (unsignalized)	16.6	C	19.3	C	16.9	C	20.0	C	0.3	0.7	-
3	Magnolia Avenue/Evergreen Avenue (unsignalized)	21.8	C	32.2	D	22.3	C	34.7	D	0.5	2.5	-
4	Magnolia Avenue/Duarte Road	0.685	B	0.658	B	0.687	B	0.663	B	0.002	0.005	No
5	Myrtle Avenue/Central Avenue	0.862	D	0.965	E	0.870	D	0.969	E	0.008	0.004	No
6	Myrtle Avenue/Evergreen Avenue	0.782	C	0.921	E	0.792	C	0.927	E	0.010	0.006	No
7	Myrtle Avenue/Pomona Avenue	0.510	A	0.669	B	0.518	A	0.688	B	0.008	0.019	No
8	Myrtle Avenue/Duarte Road	0.848	D	0.959	E	0.851	D	0.960	E	0.003	0.001	No

Source: Linscott, Law & Greenspan (2019). See Appendix J of this EIR.
Δ = change
V/C = volume-to-capacity ratio
LOS = level of service

IMPACT T-2 THE ARROYO AT MONROVIA STATION PROJECT RAMP INTERSECTION ANALYSIS

Existing and Existing Plus Project Ramp Intersection Analysis (Caltrans Criteria)

To demonstrate the effect the Project would have on ramp intersections under Caltrans' jurisdiction, an Existing Conditions (2018) and an Existing Plus Project HCM analysis was prepared, as required by Caltrans (see Section 19.2.2, Analysis Methodology/Performance Criteria).

Table 19-7 presents a summary of Existing and Existing Plus Project ramp intersection operations. All study area ramp intersections currently operate at satisfactory LOS during the AM and PM peak hours. With the addition of the Project, all study area freeway ramp intersections would continue to operate at satisfactory LOS. Therefore, under Existing Plus Project Conditions, the Project impact on peak-hour ramp intersection operations under Caltrans significance thresholds would be less than significant.

Table 19-7 Existing and Existing Plus Project Ramp Intersection Summary (Caltrans Criteria)

Intersection	Existing				Existing Plus Specific Plan				Peak-Hour Δ HCM		Significant Impact?
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
	HCM	LOS	HCM	LOS	HCM	LOS	HCM	LOS	AM	PM	
Myrtle Avenue/ Central Avenue-I-210 WB Ramps	22.0	C	36.2	D	22.5	C	36.6	D	0.5	0.4	No
Myrtle Avenue/ Evergreen Avenue-I-210 EB Ramps	27.8	C	37.1	D	28.4	C	37.8	D	0.6	0.7	No

Source: Linscott, Law & Greenspan (2019). See Appendix J of this EIR.

Δ = change
EB = eastbound
HCM = Highway Capacity Manual delay (seconds per vehicle)
I-210 = Interstate 210
LOS = level of Service
WB = westbound

Mitigation Measures

No mitigation measures are required.

Cumulative and Cumulative Plus Project Ramp Intersection Analysis (Caltrans Criteria)

To demonstrate the effect the Project would have on the ramp intersections under Caltrans' jurisdiction, a Cumulative Year (2022) Conditions, a Cumulative Plus Project HCM analysis was prepared, as required by Caltrans (see Section 19.2.2, Analysis Methodology/Performance Criteria).

Table 19-8 presents a summary of Cumulative and Cumulative Plus Project ramp intersection operations. With the addition of the proposed Project, all study area freeway ramp intersections would continue to operate at satisfactory LOS. Therefore, under Cumulative Year (2022) Plus Project Conditions, the Project impact on peak-hour ramp intersection operations under Caltrans significance thresholds would be less than significant.

Table 19-8 Cumulative and Cumulative Plus Project Ramp Intersection Summary (Caltrans Criteria)

Intersection	Cumulative				Cumulative Plus Specific Plan				Peak-Hour Δ HCM		Significant Impact?
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour				
	HCM	LOS	HCM	LOS	HCM	LOS	HCM	LOS	AM	PM	
Myrtle Avenue/ Central Avenue-I-210 WB Ramps	34.2	C	51.7	D	36.0	D	52.6	D	1.8	0.9	No
Myrtle Avenue/ Evergreen Avenue-I-210 EB Ramps	37.1	D	51.6	D	39.1	D	53.2	D	2.0	1.6	No

Source: Linscott, Law & Greenspan (2019). See Appendix J of this EIR.
Δ = change
EB = eastbound
HCM = Highway Capacity Manual delay (seconds per vehicle)
I-210 = Interstate 210
LOS = level of Service
WB = westbound

Mitigation Measures

No mitigation measures are required.

IMPACT T-3 PROJECT FREEWAY SEGMENT ANALYSIS

According to the Caltrans Guide for the Preparation of Traffic Studies (Caltrans 2002), analyses of Caltrans facilities should be conducted when and if a project is expected to add 50 or more peak hour trips in either direction on a freeway mainline segment.

At build-out, the Project is not expected to generate 50 or more vehicle trips during either the weekday AM or PM commute peak hours at any freeway mainline location. Thus, no freeway mainline location would exceed the threshold for preparation of a Caltrans freeway mainline analysis.

However, the following mainline freeway segments along the I-210 Freeway have been identified for analysis based on their proximity to the Project and the expected level of Project-generated traffic. These segments are forecast to experience a relatively greater percentage of Project-related traffic than other mainline freeway segment locations:

- I-210 Freeway west of Myrtle Avenue
- I-210 Freeway east of Myrtle Avenue

The Project's effect on the regional mainline freeway system has been determined based on a review of available traffic volume data for existing weekday peak hour conditions. Freeway mainline data were obtained from Caltrans' Performance Measurement System (PeMS) website. Hourly volume and speed data were obtained for all mid-weekdays (i.e., Tuesday, Wednesday, and Thursday) in October 2018 and reviewed for validity and consistency. The 85th percentile volumes during the AM and PM peak hours were utilized for purposes of the analysis. The year 2018 existing traffic volumes were then increased by the CMP annual average growth rate of 0.82 percent per year so as to reflect the future year 2022 analysis condition. Additionally, the existing speeds associated with the 85th percentile volumes during the AM and PM peak hours were also obtained from PeMS, as it was noted that some of the freeway mainline segments experienced congested conditions during the peak hours, leading to an inaccurate representation of demand on the segments.

The selected freeway segment features used in the analysis were based on information obtained from field reviews and confirmed by the detector station details and roadway information provided by PeMS. The freeway analysis is primarily based on the number of freeway mainline lanes, although the effects of travel lane width and right shoulder width are considered. Along some freeway segments, auxiliary lanes are provided to facilitate entering and exiting freeway traffic to and from the freeway mainline. Although some of the freeway auxiliary lanes accommodate through traffic, these have not been considered so as to provide a conservative analysis to determine the effects of the Project. The HCM operational analysis for freeway segments is based on density (i.e., passenger cars per mile per lane [pc/mi/ln]). Where the LOS determined through the use of existing speed data obtained from PeMS indicates a worse operating condition than the LOS determined by the calculated density, the LOS for the worse operating condition is reported. The Caltrans freeway traffic analysis is summarized in Table 19-9 and 19-10 for all traffic analysis conditions. Copies of the HCM freeway analysis data worksheets are provided in the TIS contained in Appendix J.

Existing and Existing With Project Conditions

As shown in Table 19-9 and Table 19-10, both of the study freeway segments are presently operating at LOS F during the weekday PM peak hour in the eastbound direction. Additionally, the freeway segment east of Myrtle Avenue is expected to operate at LOS F in the westbound direction during the weekday AM peak hour.

With the addition of the Project traffic, the same study freeway segments are expected to continue to operate at LOS F during the weekday AM and PM peak hours. As shown in Table 19-9, application of the Caltrans LOS standards and guidelines to the Existing With Project scenario indicates that the Project is not expected to generate significant traffic impacts at any of the study freeway segments, as the density does not change. Therefore, Project impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Cumulative Without and With Project Conditions

Growth in traffic due to the combined effects of continuing development, intensification of existing development, and other factors, were assumed to be 0.82 percent per year through year 2022. With the addition of regional growth and development of the related projects (i.e., year 2022 without Project conditions), the I-210 Freeway segment west of Myrtle Avenue is expected to operate at LOS F in the eastbound direction during the weekday PM peak hour. Additionally, the I-210 Freeway east of Myrtle Avenue is expected to operate at LOS F in the westbound direction during the AM peak hour and in the eastbound direction during the PM peak hour.

With the addition of the Project traffic (i.e., year 2022 with Project conditions), these segments are expected to continue to operate at LOS F in the peak hours and direction noted in the Future Without Project Conditions. As shown in Table 19-10, application of the Caltrans LOS standards and guidelines to the Cumulative Year With Project Conditions (2022) indicates that the Project is not expected to create significant traffic impacts at any of the study freeway segments, as the density does not change.

Mitigation Measures

No mitigation measures are required.

IMPACT T-4 OFF-RAMP QUEUING ANALYSIS

A queuing analysis was conducted at the I-210 eastbound and westbound off-ramps intersecting Myrtle Avenue for the AM and PM peak hours in order to anticipate any spill-back of vehicles from the off-ramps onto the I-210 freeway. The queuing analysis was calculated using the *Synchro 10* software package which includes a microsimulation module (SimTraffic). In forecasting vehicle queuing, the *Synchro* software considers traffic volume data, lane configurations, and available vehicle storage lengths for the respective traffic movements.

Table 19-9: Caltrans Freeway Impact Analysis, Existing Year 2018

No.	Freeway Segment	Peak Hour	Dir.	Existing Year 2018					Project Trip Ends [6]	Existing Year 2018 With Project			Density Increase With Project [9]	Impact?
				Traffic Volumes [2]	Density (pc/mi/ln) [3]	LOS [4]	Speed (mph) [2]	LOS [5]		Traffic Volumes [7]	Density (pc/mi/ln) [3]	LOS [8]		
1	I-210 Freeway west of Myrtle Avenue	AM	EB	6,577	28.9	D	65.4	A/B	(1)	6,575	28.9	D	0.0	No
			WB	4,285	18.1	C	59.8	D	12	4,298	18.1	D	0.0	
		PM	EB	5,004	21.9	C	20.6	F	12	5,018	21.9	F	0.0	No
			WB	5,380	22.4	C	68.7	A/B	4	5,384	22.4	C	0.0	
2	I-210 Freeway east of Myrtle Avenue	AM	EB	6,268	28.0	D	68.6	A/B	9	6,278	28.1	D	0.1	No
			WB	4,822	19.4	C	38.8	F	(2)	4,820	19.4	F	0.0	
		PM	EB	4,757	20.3	C	33.0	F	3	4,761	20.3	F	0.0	No
			WB	6,278	26.3	D	69.8	A/B	10	6,289	26.4	D	0.1	

Source: Linscott, Law & Greenspan (2019). See Appendix J of this EIR.

Notes:

EB = eastbound

I-210 = Interstate 210

LOS = level of Service

WB = westbound

EB = eastbound

[1] Freeway analysis based on the Highway Capacity Manual 6th Edition, operational analysis methodologies, per the Caltrans' *Guide for the Preparation of Traffic Impact Studies*, December 2002.

[2] Source: Caltrans PeMS website, 2018. Data reflects the 85th percentile volumes and associated speeds for weekday AM and PM peak hour conditions based on October 2018 data obtained for the I-210 Freeway at postmiles 32.86 and 35.12 in the eastbound direction, and postmiles 32.76 and 34.61 in the westbound direction.

[3] pc/mi/ln: passenger cars per mile per lane. Pursuant to the Highway Capacity Software (HCS) worksheets contained in Appendix C, density values are reported to one decimal place.

[4] Freeway mainline Levels of Service by density were based on the following criteria:

Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
≤ 11	A	> 26-35	D
> 11-18	B	> 35-45	E
> 18-26	C	> 45	F

[5] Freeway mainline Levels of Service by minimum speeds were based on the following criteria:

Speed (mph)	LOS	Speed (mph)	LOS
≥ 65.0	A	<64.6-59.7	D
≥ 65.0	B	<59.7-52.2	E

Table 19-9: Caltrans Freeway Impact Analysis, Existing Year 2018

	<65.0-64.6	C	<52.2	F

[6] Based on the trip generation and trip distribution for the project.
[7] [2] + [6]
[8] For the purposes of this analysis, the worst-case Level of Service based on the calculated density and the existing speeds is reported as the segment Level of Service.
[9] Derived by subtracting the density of the year 2018 existing conditions from the year 2018 existing with project conditions.
[10] Year 2022 future without project traffic volumes were derived by increasing the existing traffic volumes by an ambient growth rate of 0.82% per year to the year 2022.
[11] [10] + [6]
[12] Derived by subtracting the density of the year 2022 future without project conditions from the year 2022 future with project conditions.

Table 19-10: Caltrans Freeway Impact Analysis, Future Year 2022

No.	Freeway Segment	Peak Hour	Dir.	Future Year 2022 Without Project			Project Trip Ends [6]	Future Year 2022 With Project			Density Increase With Project [12]	Impact?
				Traffic Volumes [10]	Density (pc/mi/ln) [3]	LOS [8]		Traffic Volumes [11]	Density (pc/mi/ln) [3]	LOS [8]		
1	I-210 Freeway west of Myrtle Avenue	AM	EB	6,795	30.3	D	(1)	6,793	30.3	D	0.0	No
			WB	4,427	18.7	D	12	4,440	18.7	D	0.0	
		PM	EB	5,170	22.6	F	12	5,184	22.7	F	0.1	No
			WB	5,559	23.2	C	4	5,563	23.2	C	0.0	
2	I-210 Freeway east of Myrtle Avenue	AM	EB	6,476	29.3	D	9	6,486	29.4	D	0.1	No
			WB	4,982	20.0	F	(2)	4,980	20.0	F	0.0	
		PM	EB	4,915	21.0	F	3	4,919	21.0	F	0.0	No
			WB	6,486	27.4	D	10	6,497	27.5	D	0.1	

Source: Linscott, Law & Greenspan (2019). See Appendix J of this EIR.
Notes:
EB = eastbound
I-210 = Interstate 210
LOS = level of Service
WB = westbound
EB = eastbound
[1] Freeway analysis based on the Highway Capacity Manual 6th Edition, operational analysis methodologies, per the Caltrans' *Guide for the Preparation of Traffic Impact Studies*, December 2002.
[2] Source: Caltrans PeMS website, 2018. Data reflects the 85th percentile volumes and associated speeds for weekday AM and PM peak hour conditions based on October 2018 data obtained for the I-210 Freeway at postmiles 32.86 and 35.12 in the eastbound direction, and postmiles 32.76 and 34.61 in the westbound direction.
[3] pc/mi/ln: passenger cars per mile per lane. Pursuant to the Highway Capacity Software (HCS) worksheets contained in Appendix C, density values are reported to one decimal place.

Table 19-10: Caltrans Freeway Impact Analysis, Future Year 2022

[4] Freeway mainline Levels of Service by density were based on the following criteria:

Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
≤ 11	A	> 26-35	D
> 11-18	B	> 35-45	E
> 18-26	C	> 45	F

[5] Freeway mainline Levels of Service by minimum speeds were based on the following criteria:

Speed (mph)	LOS	Speed (mph)	LOS
≥ 65.0	A	<64.6-59.7	D
≥ 65.0	B	<59.7-52.2	E
<65.0-64.6	C	<52.2	F

[6] Based on the trip generation and trip distribution for the project.
[7] [2] + [6]
[8] For the purposes of this analysis, the worst-case Level of Service based on the calculated density and the existing speeds is reported as the segment Level of Service.
[9] Derived by subtracting the density of the year 2018 existing conditions from the year 2018 existing with project conditions.
[10] Year 2022 future without project traffic volumes were derived by increasing the existing traffic volumes by an ambient growth rate of 0.82% per year to the year 2022.
[11] [10] + [6]
[12] Derived by subtracting the density of the year 2022 future without project conditions from the year 2022 future with project conditions.

The I-210 eastbound off-ramp is a dual-lane ramp approximately 815 feet long, for a total of 1,630 feet of queue storage. The off-ramp queuing analysis utilized the traffic volumes available at the intersection of Myrtle Avenue/Evergreen Avenue and I-210 eastbound off-ramp. The I-210 westbound off-ramp is a single-lane ramp with approximately 990 feet of queue storage. The off-ramp queuing analysis utilized the traffic volumes available at the intersection of Myrtle Avenue/Central Avenue-I-210 westbound off-ramp. Complete details of the analysis are included in the TIS (see Appendix J). Based on this analysis, all off-ramp queues are forecast to fit within the provided capacity along the I-210 eastbound and westbound off-ramps. This impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT T-5 ALTERNATIVE MOBILITY MODES

The Arroyo at Monrovia Station Specific Plan incorporates design features to accommodate pedestrian circulation onsite as illustrated in Figure 3-4 (Site Plan). Pedestrian traffic would be afforded safe travel via sidewalks throughout the Project area that connect to the public right-of-way.

A summary of existing transit service, including transit routes, destinations and peak hour headways are presented in Table 19-1.

Transit facilities are accessible to and from the Project within a 0.25-mile radius. METRO bus stops are provided at the northwest and southeast corners of South Magnolia Avenue/Duarte Road (Route 264), on the south side of Duarte Road at South Myrtle Avenue (Routes 264 and 270), and at the south end of South Primrose Avenue (Route 270). These METRO bus routes travel to the cities of Altadena, Pasadena, Arcadia, El Monte, and Duarte. The METRO Gold Line station is one block south of the Project area, within a 0.1-mile walk. The METRO Gold Line provides transportation from Azusa to East Los Angeles via downtown Los Angeles.

The existing bikeway system is in close system is in close proximity of to the Project and in the surrounding area is illustrated in Figure19-3. Within a one-mile radius of the Project, a Class II Bicycle Lane is indicated along Evergreen Avenue and Class III bicycle routes are indicated along Magnolia Avenue, California Avenue, Pomona Avenue, and Duarte Road in the amended Monrovia Bicycle Master Plan (2018).

The Project would provide enhanced access for pedestrians, bicyclists, and transit users in the area. Therefore, the impact on alternative mobility modes, including walking, bicycling, and transit, would be less than significant.

Mitigation Measures

No mitigation measures are required.

IMPACT T-6 CONSISTENCY WITH CEQA GUIDELINES SECTION 15064.3(B)

Changes to CEQA and the CEQA Guidelines recently went into effect on December 28, 2018, whereby Section 15064.3 of the CEQA Guidelines titled “Determining the Significance of Traffic Impacts” was added and states:

"(a) Purpose.

This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts.
Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(c) Applicability. The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide."

As described in Chapter 3, the Project qualifies as a project within one-half mile of an existing major transit stop and therefore, is a mixed-use project in a TPA and in a HQTA. According to CEQA Guidelines Section 15064.3, the Project "should be presumed to cause a less than significant transportation impact." However, this statement is based upon an analysis of vehicle miles traveled from developments of this type. Vehicle Miles Traveled (VMT) is a measure of the

number of miles traveled by vehicles within a specified region for a specific time period. VMT enables evaluation of a project's impacts on accessibility of a region rather than intersection delay measured by LOS. Evidence must be provided to substantiate a statement that impacts "should be presumed to cause a less than significant transportation impact."

The Project is located proximate to a METRO Gold Line transit station and other TOD development designed to encourage walking and use of public transit. The Project promotes City-Wide TOD goals in the Station Square Transit Village Planning Area by activating the area surrounding the transit station and other adjacent TOD development by enhancing the attractiveness and walkability of the area with landscaping, public art, and pedestrian pathways, as detailed in the proposed Specific Plan Section 2.2, Mobility Plan. While VMT may increase at the site due to the increase in residential units, locating development within close proximity to transit and other TOD development is precisely the land use strategy promoted by the state and the City to reduce VMT on a regional and state-wide basis.

However, the City of Monrovia, has not yet developed thresholds of significance based upon VMT and therefore, has elected to wait to adopt the provisions of Section 15064.3(b) of the CEQA Guidelines until the required date of July 1, 2020. In addition, the TIS prepared for the Project was prepared using LOS as the threshold of significance. Therefore, use of LOS as the threshold of significance for transportation impacts was used for this Project.

Mitigation Measures

No mitigation measures are required.

IMPACT T-7 HAZARDS AND EMERGENCY ACCESS

Hazards and emergency access to and from the Project area were evaluated in a driveway access analysis below.

Driveway Access Analysis

Vehicular movements into and out of the Project area would be provided via two access driveways: one full access driveway on Pomona Avenue for the residential and retail ingress/egress and one right-turn in/right-turn out driveway on Evergreen Avenue. Loading services for retail, trash pick-up, and move-in are provided internal to the parking structure, at ground level and service vehicles are anticipated to enter via the Pomona Avenue driveway and exit via the Evergreen Avenue driveway. A description of the Project driveways is provided in the following paragraphs.

Pomona Avenue Driveway

This new Project driveway is planned to be located on the north side of Pomona Avenue along the southerly property frontage. The Pomona Avenue project driveway would provide access to guest and retail parking on the ground floor of the parking structure and ingress for loading vehicles. This new project driveway would also provide a connection to the upper parking levels of the parking structure which is planned to be gate controlled for residential only access. Full access is planned to be provided (i.e., right-turn and left-turn ingress and egress movements) at the Pomona Avenue project driveway. The Pomona Avenue driveway would be constructed to City of Monrovia design standards.

Evergreen Avenue Driveway

Evergreen Avenue is a one-way eastbound road along the Project frontage. The Evergreen Avenue driveway would provide a right-turn ingress/right-turn egress with access to the parking structure. This Project driveway is also an exit only driveway for loading vehicles. Loading services for retail, trash pick-up, and move-in are provided near the Evergreen Avenue driveway at the ground level. The service vehicles are anticipated to enter via the Pomona Avenue driveway, proceed northerly and back into the loading area to conduct loading operations and then exit by conducting a right-turn maneuver to continue onto eastbound Evergreen Avenue. The Evergreen Avenue driveway would be constructed to City of Monrovia design standards.

Because there would be two driveways, and both would be constructed according to City of Monrovia design standards, the Project would not substantially increase hazards due to geometric design features (e.g., sharp curves or dangerous intersections) or result in inadequate emergency access. Impacts would be less than significant.

Construction Traffic

To ensure safe and controlled travel of construction traffic into and out of the Project area during construction, the applicant will be preparing a Construction Traffic Management Plan. Therefore, short-term impacts of the Project on traffic hazards and emergency ingress and egress would be less than significant.

Mitigation Measures

No mitigation measures are required.

Off-Ramp Queuing Analysis

Mitigation Measures

No mitigation measures are required.

19.2.4 Impact Conclusions

Project impacts on transportation and circulation would be less then significant.

List of Acronyms and Abbreviations	
Acronym/ Abbreviation	**Full Phrase or Description**
ADA	Americans with Disabilities Act
ADT	average daily traffic
ATSP	L os Angeles County METRO Active Transportation Strategic Plan
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
Caltrans	California Department of Transportation
City	City of Monrovia
CMP	Los Angeles County METRO Congestion Management Program
EB	eastbound
EBL	eastbound left
EIR	Environmental Impact Report

HCM	Highway Capacity Manual
I-10	Interstate 10
I-210	Interstate 210
I-605	Interstate 605
ICU	Intersection Capacity Utilization
ITE	Institute of Transportation Engineers
LLg	Linscott, Law & Greenspan Engineers
LOS	level of service
LRTP	Long-Range Transportation Plan
METRO	Foothill Transit and the Metropolitan Transportation Authority
MOE	Measures of Effectiveness
MTC	Metropolitan Transportation Commission
PeMS	Caltrans' Performance Measurement System
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategies
SR-60	State Route 60
TIS	Traffic Impact Study
TOD	Transit-Oriented Development
v/c	volume-to-capacity
VMT	vehicle miles traveled
WB	westbound
WBL	westbound left

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20. UTILITIES AND SERVICE SYSTEMS

This EIR Chapter describes the existing setting for water supply, wastewater facilities, and solid waste management in the Project area. The Chapter includes the regulatory framework necessary to evaluate potential environmental impacts resulting from the Project, describes potential impacts that could result from the Project, and includes mitigation measures that would avoid or reduce those potential impacts.

The analysis in this chapter is based upon the City of Monrovia's Urban Water Management Plan (Stetson Engineers 2016), the City's Sewer System Management Plan (City of Monrovia 2016), a Water Capacity Study completed by Stetson Engineers (2019), a Wastewater Capacity Study completed by David Evans and Associates (2018), and various sub-pages available on the Monrovia's website at:

http://www.cityofmonrovia.org/your-government/public-works

Impacts on stormwater quality and stormwater-related facilities are discussed in EIR Chapter 13 (Hydrology and Water Quality).

20.1 SETTING

20.1.1 Environmental Setting

Wastewater Collection and Treatment

Wastewater is treated at the County Sanitation Districts of Los Angeles County's San Jose Creek Water Reclamation Plant (WRP), located near the City of Industry. The San Jose Creek WRP currently treats 58.5 million gallons per day (mgd) and is permitted to treat up to 100 mgd (County Sanitation Districts of Los Angeles County [LACSD] 2019).

The majority of Monrovia's wastewater flows are conveyed to a 24-inch trunk sewer line at the intersection of Peck Road and Duarte Road, where the line runs along Peck Road in the southern area of Monrovia. The 24-inch trunk sewer line is operated by LACSD and has a capacity of 6.1 mgd and conveyed a peak flow of 3.3 mgd when last measured in 2013 (LACSD 2019).

The City of Monrovia Public Services Department owns, operates, and maintains a sanitary sewer collection system including approximately 92 miles of City sewer lines with pipe sizes ranging in diameter from 6 to 24 inches (City of Monrovia 2018b). The City's two existing sewer main lines located near the Project (PSOMAS 2017, David Evans and Associates 2018) include:

- A 10-foot deep 24-inch Vitrified Clay Pipe (VCP) approximately six feet east of the center line of Mayflower Avenue, which drains south along Mayflower Avenue until a turn eastward on Duarte Road, a turn southward at Peck Road, and then connection to the 24-inch trunk sewer line.

- An 8 to 10-foot deep 10-inch VCP sewer main approximately 10 feet west of the center line of Magnolia Avenue, which drains south along Magnolia Avenue until it connects to the 24-inch trunk sewer line.

The City of Monrovia is a member of the Consolidated Sewer Maintenance District (CSMD) of Los Angeles County administered and managed by the Los Angeles County Department of Public Works (LACDPW) which is responsible for maintaining the City's sewer pipelines.

Water Supply

The City adopted an Urban Water Management Plan (UWMP) pursuant to the requirements of the State of California Urban Water Management Planning Act and the California Water Code to describe future water demands and future availability of the water supply sources used by the City (Stetson Engineers 2016). The UWMP currently does not include the Project.

The Project area is within the Main San Gabriel Groundwater Basin, which is the primary source of water for Monrovia. The Main San Gabriel Basin fresh water storage capacity is estimated to be approximately 8.7 million acre-feet (AF). Approximately 1.0 million AF of this groundwater basin is actively managed by importing supplemental water to recharge the basin to ensure reliability of the available groundwater supply. The City's water system is a "public water system" as defined by California Water Code Section 10912(c), which currently serves approximately 36,600 people with 9,600 service connections. The City maintains 111 miles of underground water pipelines, 12 local reservoirs, seven pressure zones to deliver water to various parts of Monrovia, 19 booster pumps, and five booster stations (City of Monrovia 2018a).

The City operates a water conservation program called Monrovia Conserves: A Community Effort. The City also has Drought Regulations and Water Conservation Standards (Ordinance No. 2015-05 and Resolution No. 2015-41) mandated by the 2015 UWMP whereby actions are required to respond to a severe or extended water shortage.

The Main San Gabriel Basin is an adjudicated groundwater basin, where entities that use the groundwater basin as a water supply must pay their fair share of the cost to import supplemental water to recharge the basin. However, there is no limit on the quantity of groundwater that may be extracted, even during drought years. The Main San Gabriel Basin serves three water districts: the Upper San Gabriel Valley Municipal Water District's (USGVMWD), San Gabriel Valley Municipal Water District (SGVMWD), and Three Valleys Municipal Water District (TVMWD). The City of Monrovia is located within USGVMWD's service area. Basin-wide, the five-year average production of water from the groundwater basin has been 214,375 acre-feet per year (AFY).

The City pumps groundwater from its five active wells with a combined capacity of approximately 10,000 gallons per minute (gpm). Based on information provided in the UWMP, the reliable pumping capacity of City wells is 9,700 AFY or 8.6 million gallons per day (mgd), which assumes that wells are operating at 60 percent capacity.

Since 1998, water demand in Monrovia has ranged from 5,810 AFY in 2002 to 9,706 AFY in 2003 (Stetson Engineers 2019, with an average consumption of 7,690 AFY over the last 20 years. The UWMP projects future water demands without the proposed Project up to 7,037 AFY through the year 2040, starting at 6,635 AFY in 2019-2020.

The City can receive imported water from the Metropolitan Water District from the USG-7 connection. However, the City has not received water from this connection at any point over the last 20 years.

Solid Waste

The City contracts with a private waste provider, Athens Services, for solid waste pick up and recycling services (City of Monrovia 2018c). As landfills throughout the region near capacity and the opportunities for new landfill sites become increasingly scarce, the need to reduce solid waste generation increases as hauling trash to distant locations is costly. In response to State directives for waste reduction, the City and its contracted hauler have coordinated efforts to reduce the volume of refuse entering the waste stream.

According to the CalRecycle Disposal Reporting System (CalRecycle 2018), Monrovia disposed 28,495 tons of solid waste in 2016, equating to approximately 4.2 pounds per day per resident. Solid waste was distributed over various landfills and recycling centers:

- Antelope Valley Public Landfill (72 tons—0.25%)
- Azusa Land Reclamation Co. Landfill (689 tons—2.42%)
- Chiquita Canyon Sanitary Landfill (363 tons—1.27%)
- El Sobrante Landfill (1,942 tons—6.82%)
- Frank. R. Bowerman Sanitary Landfill (1,075 tons—3.77%)
- Lancaster Landfill and Recycling Center (5 tons—0.2%)
- Mid-Valley Sanitary Landfill (13,177 tons—46.2%)
- Olinda Alpha Sanitary Landfill (2,958 tons—10.3%)
- San Timoteo Sanitary Landfill (5,294 tons—18.6%)
- Simi Valley Landfill & Recycling Center (256 tons—0.90%)
- Sunshine Canyon City/County Landfill (2,310 tons—8.12%)
- Victorville Sanitary Landfill (354 tons—1.24%)

CalRecycle projected landfill capacity countywide in their Remaining Lifetime Landfill Capacity Analysis for Los Angeles County (CalRecycle 2011). Under a “medium growth” scenario, CalRecycle projects 32 million tons of remaining capacity in 2025. Under a “medium growth” scenario, the following assumptions apply: (1) solid waste amounts increase due to population growth and medium economic growth; (2) no new facilities are built beyond those already planned; (3) no increase in recycling; and (4) current State regulations and policies continue without change.

20.1.2 Regulatory Setting

Wastewater Collection and Treatment

State

California Plumbing Code, Chapter 10. Chapter 10 of the California Plumbing Code has been adopted by the City of Monrovia and provides the Building Official with legal authority to require installation of interceptors/clarifiers where waste flow conditions require proper handling to protect the sewer system and the public (commonly at establishments that generate grease, oil, grit, acids, alkaline or flammable wastes).

Water Supply

State

Department of Water Resources. The California Department of Water Resources (DWR) is responsible for the management and regulation of water usage, including the delivery of water to two-thirds of California's population through the nation's largest State-built water development and conveyance system, the State Water Project. Working with other agencies and the public, DWR develops strategic goals and near-term and long-term actions to conserve, manage, develop, and sustain California's watersheds, water resources, and water management systems. DWR also works to prevent and respond to floods, droughts, and catastrophic events that would threaten public safety, water resources and management systems, the environment, and property.

California Safe Drinking Water Act. The Safe Drinking Water Act (SDWA), administered by the U.S. Environmental Protection Agency (EPA) in coordination with the California Department of Public Health (CDPH), is the main Federal law that ensures the quality of drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees water suppliers who implement those standards.

Urban Water Management Planning Act. In 1983, the California legislature enacted the Urban Water Management Planning Act (Water Code Section 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 AF annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an UWMP at least once every 5 years and submit it to the DWR. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24 or Division 26 of the California Water Code, or receive drought assistance from the State, until the UWMP is submitted and deemed complete pursuant to the Act.

Senate Bills 610 and 221, Water Supply Assessment and Verification. Senate Bills (SB) 610 and 221 amended State law to improve the link between the information on water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability (i.e., a Water Supply Assessment or WSA) to be provided to city and county decision-makers prior to approval of development projects involving greater than 500 dwelling units. Both statutes require this detailed information to be included in the administrative record. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental document for certain projects as defined in Water Code 10912 subject to CEQA. Under SB 221 approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

Statewide Water Conservation Act of 2009 (Senate Bill X7-7). In November 2009, the California State legislature passed SB X7-7 addressing water conservation. In general, SB X7-7 requires a 20 percent reduction in per capita urban water use by 2020, with an interim target of 10 percent in 2015. The legislation requires urban water users to develop consistent water use targets and to use those targets in their UWMPs.

Assembly Bill (AB) 1668 and Senate Bill (SB) 606. AB 1668 and SB 606 build on Governor Brown's ongoing efforts to make water conservation a way of life in California and create a new foundation for long-term improvements in water conservation and drought planning. SB 606 and

AB 1668 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards, which must be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers; comprised of indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses.
- Providing incentives for water suppliers to recycle water.
- Identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and provide recommendations for drought planning.
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

Local

City of Monrovia 2015 Urban Water Management Plan. The City of Monrovia is a water supplier and is required to prepare an UWMP in accordance with the California Urban Water Management Planning Act. The Act requires every "urban water supplier" to prepare and adopt a Plan to provide a legal framework for long-term water management to ensure sufficient water supplies to meet existing and future demands. It also requires periodic review of the Plan by the City at least once every five years and any amendments or changes which are indicated by the review. The latest UWMP was prepared in 2015 by the UWMP (City of Monrovia 2016).

City of Monrovia Landscape Regulations. In response to Executive Order (EO) B-29-15 to impose urban water use restrictions, in 2018 the City of Monrovia implemented a Landscape Ordinance to regulate:

- New residential and non-residential construction projects with a landscape area totaling 500 square feet (sf) or more; and

- Rehabilitated residential and non-residential landscape projects with a landscape area totaling 2,500 sf or more.

In accordance with the State's Model Water Efficient Landscape Ordinance (MWELO), a project applicant shall submit a complete Landscape Documentation Package containing a Water Efficient Landscape Application containing a licensed landscape professional's statement that the proposed design and documentation package complies with State's regulations regarding water conservation.

Solid Waste Disposal

State

California Department of Resources Recycling and Recovery (CalRecycle; formerly the California Integrated Waste Management Board). CalRecycle oversees, manages, and monitors waste generated in California. It provides limited grants and loans to help California cities, counties, businesses, and organizations meet the State waste reduction, reuse, and recycling goals. CalRecycle develops, manages, and enforces waste disposal and recycling regulations, including Assembly Bill (AB) 939 and Senate Bill (SB) 1016.

Assembly Bill (AB) 939. AB 939 (Public Resources Code 41780) requires cities and counties to prepare Integrated Waste Management Plans (IWMPs) and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare Source Reduction and Recycling Elements (SRRE) as part of their IWMPs. These Elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

Senate Bill (SB) 1016. SB 1016 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 also changed the CalRecycle review process for each municipality's IWMP. The CalRecycle Board reviews a jurisdiction's compliance with diversion rate targets in accordance with a specified schedule. Beginning January 1, 2018, the Board will be required to review a jurisdiction's source Reduction and Recycling Element and Hazardous Waste Element every two years.

20.2 ENVIRONMENTAL EFFECTS

This Section describes potential impacts related to utilities that could result from the Project. This Section also recommends mitigation measures as needed to reduce potentially significant impacts.

20.2.1 Significance Criteria

Based on the CEQA Guidelines, Appendix G: Items XIX (a) through (e), implementation of the Project would result in a significant impact related to utilities if it would:

(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which would cause significant environmental effects;

(b) Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;

(c) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

(e) Fail to comply with Federal, State, and local management and reduction statutes and regulations related to solid waste.

In addition, based on the CEQA Guidelines, Appendix G: X (b) and X (e), implementation of the Project would have a significant impact on groundwater resources if it would:

(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; or

(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

20.2.2 Analysis Methodology

The methodology for evaluating potential environmental impacts related to utilities and service systems followed this basic sequence:

(1) Background reports, along with information provided by other governmental organizations and local private utilities were evaluated to identify existing environmental conditions and problems related to utilities and service systems.

(2) The CEQA Statute and Guidelines, including Appendix G (Environmental Checklist Form), were consulted to identify environmental impact topics and issues that should be addressed in the EIR. In part, this process resulted in the significance criteria listed in subsection 20.2.1 above.

(3) Potential impacts to utilities and service systems were evaluated by comparing projected increased water use, generation of wastewater, and solid waste generation with existing capacity and availability of utility services to determine if a significant impact would occur.

(4) For potential environmental impacts, mitigation measures were designed to avoid or reduce each impact to a less than significant level, where possible.

20.2.3 Environmental Impacts

IMPACT UTIL-1 WASTEWATER COLLECTION AND TREATMENT

The Project's anticipated population increase would cause an increase in the amount of wastewater delivered to the San Jose Creek Water Reclamation Plant. Table 20-1 presents an estimated increase of 0.051 mgd in wastewater generated by new development under the Project once existing structures are demolished. Table 20-1 does not account for existing uses or show a net increase, thus resulting in a conservative estimate.

Table 20-1 Estimated Wastewater Generated by Project

Land Use	Wastewater Generation Rate[(A)]	Total Wastewater Generation (gpd)
302 DUs	156 gpd per DU	47,112
Commercial flex space (7,080 sf)	100 gpd per 1,000 sf	708
One pool/spa[(B)]		2,857
Total		**50,677**

Notes:
DU dwelling unit
sf square feet
(A) Wastewater generation rates are from County Sanitation Districts of Los Angeles County, Table 1, Loadings by Each Class of Land Use (https://lacsd.org/civicax/filebank/blobdload.aspx?blobid=3531) (downloaded in July 2019)
(B) A competition pool, 50 meters by 25 yards (22.86 m), with an average pool depth of 6 feet (1.83 m), has a total pool volume of 2,091.69 m^3, or 552,566 gallons. It is estimated that the one pool and spa proposed would comprise the size of one competition pool. Replenishment of pool water with potable water is required from time to time to prevent the buildup of unacceptable levels of chloramines. Discharge of water from pools is required to be discharged to the sanitary sewer. The water filtration systems for the proposed new pool and spa have not been designed to

date, however, it is estimated that approximately 20,000 gallons of potable water per week per pool/spa complex, or 2,857 gpd would be required to replenish the water; and a commensurate amount of water would need to be discharged to the sanitary sewer each week.

This wastewater amount represents less than one percent of the remaining capacity at the San Jose Creek Water Reclamation Plant and would not require the construction of new facilities. Therefore, the Project would have a less than significant impact on the San Jose Creek Water Reclamation Plant and would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. The Project would not result in a determination by the wastewater treatment provider serving the Project area that it does not have adequate capacity to serve the Project's projected demand in addition to its existing commitments.

In addition, the City of Monrovia's Department of Public Works commissioned a wastewater capacity study to evaluate the cumulative impacts of proposed new developments in the Project area on the size capacity of the City's sewer lines adjacent to the Project (David Evans and Associates 2018). The study concluded that one small segment of the City's sewer line along Magnolia Avenue, and two small segments of the City's sewer line along Duarte Road, would slightly exceed the LACSD's threshold for determining whether the capacity of a pipeline is full (i.e., the depth of flow over the pipe diameter), however, the remaining pipeline segments are projected to remain at capacity. Therefore, the City's wastewater capacity study does not recommend any additional wastewater infrastructure to serve the Project or other proposed projects in the area (David Evans and Associates 2019). Therefore, impacts of the Project on the capacity of the City's sewer lines would be less than significant

However, a final determination by the City of Monrovia's Department of Public Works that it can provide wastewater service to the Project in compliance with LACSD requirements would be required prior to issuance of building permits or recordation of final maps for Arroyo at Monrovia Specific Plan. Therefore, mitigation measure MM UT-1 is required to ensure that the City provides a "Can and Will Serve" letter to provide wastewater service for Project. With implementation of this mitigation measure, potentially significant impacts would be reduced to less than significant levels.

Mitigation Measures

MM UT-1. Prior to issuance of building permits or the approval of a final map, whichever occurs first, the applicant shall agree to the conditions as outlined herein and provide the following: a) provide a "Can and Will Serve" letter by the City of Monrovia's Department of Public Works to provide wastewater service to the development indicating the feasibility and conditions of providing service to the development, and b) identify and show on the site plans and tentative map the proposed layout and design of the development and how it will accomplish City Department of Public Works' conditions of approval for the development. **Requirements and Timing:** A Can and Will serve letter for wastewater service shall be obtained prior to issuance of building permits or approval of a final map, whichever occurs first. **Monitoring:** City Planning staff shall confirm issuance of the Can and Will Serve letter for wastewater service prior to issuance of building permits or approval of a final map, whichever occurs first.

IMPACT UT-2 WATER SUPPLY AND GROUNDWATER RESOURCES

Expanded conservation practices such as low water use toilets, appliances and gardening, and increased use of recycled water would likely improve the efficiency of new uses established by the Project as compared to the existing uses. The increase in mixed-use development typically

results in lower household water use as lawn and garden irrigation practices are less compared to single family homes. Nevertheless, water use would be expected to increase with the anticipated increase in population and new landscaped areas and water is a scarce resource and droughts are common in southern California.

Because the proposed Project must comply with SB 606 and AB 1668 by 2022, indoor water use for the Project is estimated to be 55 gallons per capita per day (GPCD), the 2025 standard for indoor water use. With a population increase of 630 individuals, the Project would result in a water demand of approximately 38.8 AFY for its population increase (55 GPCD x 630 x 365 days in a year/325,851 gallon per acre-foot).

Considering irrigation efficiency and evapotranspiration, the estimated annual total water use for irrigation for the Project is 0.61 AFY. In addition, replenishment of pool and spa water would result in a total estimated water demand of 1,042,805 gallons per year (see Table 20-1) or 3.2 AFY. This would result in a net increase of 42.6 AFY in water demand in the Project area. Water demand at the Project site would likely decrease under the Project due to the elimination of industrial uses. However, to be conservative, it is assumed that there would be a net increase of 42.6 AFY in water demand with the Project.

An addition of 42.6 AFY to the UWMP's projected City water demand of 7,037 AFY by the year 2040 would result in a total water demand of 7,079.6 AFY in the City by the year 2040. The City would have a sufficient supply (i.e., 9,700 AFY according to a recent Water Supply Assessment prepared for another project [Stetson Engineers 2018]) to support this demand, in both single and multiple dry years. Therefore, the Project would not require new or expanded water supply entitlements and would have a less than significant impact on water supply.

The City conducted a water capacity study to determine if any additional water infrastructure improvements would be needed to serve the Project (Stetson Engineers 2019). The capacity study concluded that additional potable water infrastructure would be required. Specifically, additional booster pump capacity at the City's Forebay Pump Station is recommended in addition to 980 feet of pipeline replacements or upgrades along Magnolia Avenue. These improvements would occur within a developed, urbanized area and would not result in any significant environmental impacts. Under mitigation measure MM UT-2, payment of in-lieu fees would be required to ensure payment of the fair-share of required improvements and to reduce impacts to less than significant levels.

However, a final determination by the City of Monrovia's Department of Public Works that it can provide water service to the Project in compliance with LACSD requirements would be required prior to issuance of building permits or recordation of final maps for the Project. Therefore, mitigation measure MM UT-3 is required to ensure that the City provides a "Can and Will Serve" letter to provide water service for the Project. With implementation of this measure, potentially significant impacts would be reduced to less than significant levels.

Mitigation Measures

MM UT-2. The applicant for development shall pay their fair share in lieu fees for completion of upgrades to the nearby water system to support the development. Improvements will include the addition of one booster pump and upgrade of 980 feet of pipeline along Magnolia Avenue between Duarte Road and Evergreen Avenue. **Requirement and Timing:** In lieu fees shall be paid prior to issuance of building permits. **Monitoring:** City Planning staff shall confirm payment of in lieu fees prior to issuance of building permits.

MM UT-3. Prior to issuance of building permits or the approval of the final map, whichever occurs first, the applicant shall agree to the conditions as outlined herein and provide the following: a) provide a "Can and Will Serve" letter by the City of Monrovia's Department of Public Works to provide water service to this development indicating the feasibility and conditions of providing service to the development, and b) identify and show on the site plans and tentative map the proposed layout and design of the development and how it will accomplish City Department of Public Works' conditions of approval for the development. **Requirements and Timing:** A Can and Will serve letter for water service shall be obtained prior to issuance of building permits or approval of the final map, whichever occurs first. **Monitoring:** City Planning staff shall confirm issuance of the Can and Will Serve letter for water service prior to issuance of building permits or approval of the final map, whichever occurs first.

IMPACT UT-3 SOLID WASTE

Using a 2016 per capita waste generation rate of 4.2 pounds per resident per day; the approximately 630 residents that would live in the Project area would result in a generation of approximately 483 tons of solid waste annually. This is likely a worst-case scenario as per-capita waste generation rates are expected to continue to decline through various solid waste management practices.

As stated above, solid waste generated by the City of Monrovia has been disposed of at the following facilities, which would also be used for waste generated by the Project:

- Antelope Valley Public Landfill
- Azusa Land Reclamation Co. Landfill
- Chiquita Canyon Sanitary Landfill
- El Sobrante Landfill
- Frank. R. Bowerman Sanitary Landfill
- Lancaster Landfill and Recycling Center
- Mid-Valley Sanitary Landfill
- Olinda Alpha Sanitary Landfill
- San Timoteo Sanitary Landfill
- Simi Valley Landfill & Recycling Center
- Sunshine Canyon City/County Landfill
- Victorville Sanitary Landfill

As stated above, CalRecycle projects 32 million tons of remaining capacity in 2025. Therefore, generation of 483 tons of solid waste would represent a very small percentage of the County's landfill capacity and landfills with sufficient permitted capacity are available to serve the Project's solid waste disposal needs. Therefore, the Project would have a less than significant impact on landfill capacity. In addition, the City, working with private providers, will continue to implement a variety of solid waste reduction, recycling, and re-use measures to meet its obligation under AB 939. These efforts will be coordinated with waste management programs; therefore, future landfill diversion rates may further improve.

Buildout of the Project would involve the demolition of approximately 47,112 square feet (sf) of existing structures in the area. However, a large percentage of construction and demolition (C&D) debris is able to be recycled. The City of Monrovia has a C&D Recycling Program under its IWMP requiring individual project applicants to prepare a Waste Management Plan for individual projects

and requiring recycling of at least 50 percent of C&D waste, as stipulated in standard condition SC UT-1. The City must review and approve Waste Management Plans for individual projects and requires submittal of Waste Management Reports including receipts or weight tickets to document recycling of materials. The Project would comply with Federal, State, and local statutes and regulations related to solid waste. Therefore, with implementation of this program, buildout of the Project would result in less than significant solid waste impacts due to construction and demolition activities.

Standard Conditions

SC UT-1: As applicable, Project applicants shall comply with the City of Monrovia Construction and Demolition (C&D) Disposal and Recycling Program. The Program includes submitting a C&D Recycling Program Permit Application and a Waste Management Plan to the Public Works Department Environmental Services Division and diverting 50 percent of the total construction and demolition debris generated by the Project. **Requirements and Timing:** Applicants shall submit Waste Management Plans to the City Department of Public Works Environmental Services Division for review and approval prior to issuance of demolition permits. The Waste Management Plan shall be implemented and adhered to throughout construction. **Monitoring:** City Department of Public Works Environmental Services Division shall review and approve of Waste Management Plans prior to issuance of demolition permits; City Planning staff shall confirm approval of the Waste Management Plan prior to issuance of demolition permits and shall confirm compliance with the Waste Management Plan prior to sign off on construction.

Mitigation Measures

No mitigation measures are required.

20.2.4 Impact Conclusions

Sufficient potable water, wastewater capacity, and landfill capacity exists to accommodate increased demands with construction and implementation of the proposed Project. Mitigation measures MM UT-1 and MM UT-3 would ensure that Can and Will Serve letters are issued for water and wastewater service for development of the Project, and mitigation measure MM UT-2 would ensure that adequate water infrastructure is in place in the Project area to accommodate the new planned growth. Project impacts on utilities would be less than significant with the incorporation of standard conditions and mitigation measures MM UT-1 through MM UT-3.

List of Acronyms, Abbreviations, and Symbols	
Acronym/ Abbreviation	**Full Phrase or Description**
AB	Assembly Bill
AF	acre-feet
AFY	acre-feet per year
C&D	construction and demolition debris
CDPH	California Department of Public Health
CEQA	California Environmental Quality Act
CII	commercial, industrial, and institutional irrigation
CSMD	Consolidated Sewer Management District
EIR	Environmental Impact Report
EO	Executive Order

EPA	Environmental Protection Agency
GPCD	gallons per capita per day
gpm	gallons per minute
IWMP	Integrated Waste Management Plan
LACDPW	Los Angeles County Department of Public Works
LACSD	Los Angeles County Sanitary District
LID	Low Impact Development
mgd	million gallons per day
MM	Mitigation measure
MWELO	Model Water Efficient Landscape Ordinance
NPDES	National Pollutant Discharge Elimination System
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SDWA	Safe Drinking Water Act
SGVMWD	San Gabriel Valley Municipal Water District
SRRE	Source Reduction and Recycling Element
TVMWD	Three Valleys Municipal Water District
USGVMWD	Upper San Gabriel Valley Municipal Water District
UWMP	Urban Water Management Plan
VCP	Vitrified Clap Pipe
WRP	Water Reclamation Plant
WSA	Water Supply Assessment

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21. ALTERNATIVES

Section 15126.6 of the CEQA Guidelines requires an EIR to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The Section also states that the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the basic project objectives, or would be more costly. Accordingly, this chapter focuses on Project alternatives that could potentially reduce environmental impacts as compared to the Project, while still meeting the Project objectives.

Pursuant to Section 15126.6, this Chapter describes three alternatives to the Project and compares their impacts to the Project. Pursuant to the CEQA Guidelines, the ability of the alternatives to meet the basic project objectives is also described, and the "environmentally superior" alternative is identified.

In accordance with CEQA Guidelines Section 15126.6(a), this EIR does not evaluate every conceivable alternative. A reasonable range of feasible alternatives that will allow decision-makers to make a reasoned choice and that meet most of the project objectives has been evaluated. The project objectives are:

Objective 1. Project the image of Monrovia as an attractive, environmentally sustainable community.

Objective 2. Enhance the Station Square Transit Village by encouraging pedestrian activity, providing public open space and parking, and enhancing landscaping.

Objective 3. Redevelop the project site to cluster high-density housing opportunities where transit and other amenities are readily available, thus capitalizing on and enhancing the Station Square Transit Village synergy.

Objective 4. Accommodate sustainable site and architectural design that implements the latest California Green Building and Green Energy Codes, allows for alternative vehicle fueling facilities, implements the City's storm water management programs, and uses water conservation landscaping techniques consistent with the City's regulations.

Objective 5. Provide attractive housing that offers a suite of residential amenities and increases Monrovia's housing options, including affordable housing for very low-income households.

Objective 6. Increase retail and commercial space in the Station Square Transit Village.

Objective 7. Provide public automobile parking and bicycle parking for the public and for residents.

The following alternatives have been evaluated in comparison to the Project:

- Alternative 1: No Project Alternative
- Alternative 2: No Commercial Alternative
- Alternative 3: Reduced Specific Plan Alternative

An offsite alternative was not considered as it would not meet the project objectives. Table 21-1 provides an overview of the development potential for the Project and the three alternatives.

A detailed description of each alternative and comparison of impacts on each issue area is provided below. Table 21-2 summarizes impacts of each alternative relative to the Project.

Table 21-1 Summary Statistics for Project Alternatives

Project Component	Size (Acres)	Proposed Zoning Designations	Proposed Uses (Square feet, Dwelling units)
Project	2.90	Planned Development (PD)-12 (PD-12) Station Square Transit Village/Arroyo at Monrovia Station Specific Plan	Multi-Family Residential 302 DU, 7,080 sf Commercial Space (Flex and Fixed Combined), & 15 Affordable Units
Alternative 1: No Project Alternative	2.90	PD-12	None proposed
Alternative 2: No Commercial Alternative	2.90	PD-12/Arroyo at Monrovia Station Specific Plan	Multi-Family Residential 302 DUs, No Commercial Space, & 15 Affordable Units
Alternative 3: Reduced Specific Plan	**2.03**	PD-12/Arroyo at Monrovia Station Specific Plan	Multi-Family Residential 167 DUs, 7,080 sf Commercial Space (Flex and Fixed Combined), & with a proportionate reduction in Affordable Units

Notes:
DU dwelling units
sf square feet

Table 21-2 Summary of Impacts Under Alternatives Relative to the Project

Issue Area	Project	Alternatives		
		Alternative 1: No Project Alternative	**Alternative 2: No Commercial Alternative**	**Alternative 3: Reduced Specific Plan Alternative**
Aesthetics and Visual Resources	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Same as Project (Less Than Significant with Mitigation Incorporated): Development footprint would be the same as the Project.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 3 would result in fewer units in a smaller development footprint because the building would not surround the single-family residence to improve neighborhood compatibility.
Agricultural and Forest Resources	No Impact	Same as Project (No Impact)	Same as Project (No Impact)	Same as Project (No Impact)
Air Quality	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 2 would generate slightly fewer trips.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 3 would generate fewer trips.
Biological Resources	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Same as Project (Less Than Significant with Mitigation Incorporated). Development footprint would be the same as the Project.	Less than the Project (Less Than Significant with Mitigation Incorporated) Development footprint would be smaller than the Project development footprint.
Cultural Resources and Tribal Resources	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Same as Project (Less Than Significant with Mitigation Incorporated). Development footprint would be the same as the Project.	Less than the Project (Less Than Significant with Mitigation Incorporated) Development footprint would be smaller than the Project.
Geology and Soils	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact with Mitigation Incorporated): Alternative 1 would involve no new development.	Same as Project (Less Than Significant with Mitigation Incorporated). Development footprint would be the same as the Project.	Less than the Project (Less Than Significant with Mitigation Incorporated) Development footprint would be smaller than the Project.
Greenhouse Gas Emissions and Energy Consumption	Less Than Significant	Less than the Project (No Impact): Alternative 1 would involve no new development.	Less than Project (Less Than Significant): Alternative 2 would generate slightly fewer trips.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 3 would generate fewer trips and energy use. Development footprint would be smaller than the Project.
Hazards and Hazardous Materials	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Same as Project (Less Than Significant with Mitigation Incorporated): Development	Same as the Project (Less Than Significant with Mitigation Incorporated) Development footprint

Table 21-2 Summary of Impacts Under Alternatives Relative to the Project

Issue Area	Project	Alternatives		
		Alternative 1: No Project Alternative	**Alternative 2: No Commercial Alternative**	**Alternative 3: Reduced Specific Plan Alternative**
			footprint would be the same as the Project.	would be smaller than the Project footprint.
Hydrology and Water Quality	Less Than Significant	Less than the Project (No Impact): Alternative 1 would involve no new development.	Same as Project (Less Than Significant): Development footprint would be the same as the Project.	Same as the Project (Less Than Significant Development footprint would be smaller than the Project.
Land Use and Planning	Less Than Significant	Less than the Project (No Impact): Alternative 1 would involve no new development.	Greater than the Project (Less Than Significant): Development footprint would be the same as the Project, however, the lack of commercial uses would not meet the City's General Plan goals and policies to increase commercial and mixed uses, and employment opportunities, in the City.	Greater than Project (Less than Significant): Alternative 3 would result in substantially less housing in the City than the Project, and therefore, would be less effective at meeting the City's housing goals outlined in the Housing Element and PD-12 but would result in less potential incompatibility with the single-family residence due to the elimination of proposed development in the northern portion of the site.
Mineral Resources	No Impact	Same as the Project (No Impact)	Same as the Project (No Impact)	Same as the Project (No Impact)
Noise	Significant and Unavoidable Impact	Less than the Project (No Impact): Alternative 1 would involve no new development.	Less than Project (Significant and Unavoidable Impact): Alternative 2 would generate slightly fewer trips but construction impacts would be the same as the Project.	Less than Project (Significant and Unavoidable): the duration of construction noise would decrease due to construction of a smaller building footprint, but construction noise would still exceed standards at 230 W. Evergreen Avenue under Alternative 3 due to the nature and period of construction.
Population and Housing	Less Than Significant	More than the Project (Less Than Significant): Alternative 1 would result in less housing in the City than the Project.	Same as Project (Less than Significant): Number of housing units proposed would be the same as the Project.	Greater than Project (Less than Significant): Alternative 3 would result in less housing in Monrovia than the Project and would include fewer affordable housing units. Therefore, Alternative 3 would be less effective at meeting the City's housing goals outlined in the Housing Element and PD-12.
Public Services and Recreation	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Similar to the Project (Less Than Significant with Mitigation Incorporated): The elimination of	Less than Project (Less than Significant with Mitigation): Alternative

Table 21-2 Summary of Impacts Under Alternatives Relative to the Project

Issue Area	Project	Alternatives		
		Alternative 1: No Project Alternative	**Alternative 2: No Commercial Alternative**	**Alternative 3: Reduced Specific Plan Alternative**
			commercial space would not significantly affect the need for public services (i.e., police and fire protection services).	3 would involve less demand on public services and recreational facilities.
Transportation and Circulation	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 2 would generate slightly less trips.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 3 would generate slightly fewer trips compared to project operations.
Utilities and Service Systems	Less Than Significant with Mitigation Incorporated	Less than the Project (No Impact): Alternative 1 would involve no new development.	Less than Project (Less Than Significant with Mitigation Incorporated): Alternative 2 would result in less water demand and less generation of wastewater and solid waste than under the Project.	Less than Project (Less than Significant with Mitigation): Alternative 3 would involve less demand on utilities and service systems than under the Project.

21.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

According to Section 15126.6(e)(2) of the CEQA Guidelines, the evaluation of alternatives in an EIR shall include a "no project" scenario. A "no project" scenario consists of the existing physical setting and "...what is reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services."

Under this alternative, the Arroyo at Monrovia Station Specific Plan would not be adopted. The project area would continue with a land use designation of Planned Development Area - 12 (PD-12) under the City's Land Use Element. This allows flexibility in land use types, location, and intensities that would allow individual development projects to be consistent with Station Square Transit Village goals and objectives. The goals and objectives for the Station Square Transit Village are to transition the area to mixed use, high density residential, and/or commercial uses. However, under the current zoning, existing legal uses are considered conforming, allowing the existing light industrial and single-family residential buildings to remain in their current states. New uses in existing structures and new construction would be subject to the provisions of the Business Enterprise (BE) Zone. The entire project area would continue to be designated as PD-12, where industrial and residential uses are allowed in this zone. Under this zoning, the only residential uses that are allowed are the existing single-family houses and high-density residential structures.

Under this alternative, no buildout would occur in the Arroyo at Monrovia Station Specific Plan area and all existing structures would remain; specifically, eight single-family residences, two light industrial structures, a vacant lot, and a private parking lot, all constructed between 1950 and 1957, would remain.

Alternative 1 would not contribute to the vision planned for Station Square Transit Village, which is to create "a dynamic, mixed-use, transit-oriented community." It would also not involve smart growth directed at developing a sustainable community by increasing walkability and accessibility for bicyclists, providing a greater range of transportation and housing choices through transit-oriented development and mixed-use development, and prioritizing infill and redevelopment in a Transit Priority Area (TPA) and High Quality Transit Area (HQTA). These guiding principles and objectives help mitigate overall impacts on air quality, global climate change, and transportation and circulation within the City. Also, existing structures would remain on the property and would therefore not include current techniques in achieving sustainability such as modern fixtures for water conservation and use of green building technology.

Alternative 1 would involve no new development. However, under Alternative 1, none of the project or Station Square Transit Village objectives would be met.

21.1.1 Comparison of Impacts

Aesthetics and Visual Resources

Alternative 1 would involve no new development. Therefore, there would be no impacts on aesthetics and visual resources.

Existing structures would remain and would likely become inconsistent and incompatible with the character of planned development in areas adjacent to the Project area (such as other

developments within the Station Square Transit Village) utilizing modern architectural styles and details.

Agricultural and Forest Resources

There are no agricultural or forest resource uses in the Project area. As such, there would be no impact under the Project and under Alternative 1.

Air Quality

Alternative 1 would involve no new development. Therefore, there would be no impacts on air quality.

However, the overall reduction in vehicle trips and associated emissions of criteria pollutants and greenhouse gases within the City and region as a result of increasing in-fill residential development, increasing transit-oriented development, increasing mixed uses, and increasing walkability and accessibility for bicyclists would not be realized.

Biological Resources

Alternative 1 would involve no new development. Therefore, there would be no impacts on biological resources.

However, the benefits of facilitating in-fill residential development and mixed uses in the City to reduce development sprawl into open space would not be realized.

Cultural Resources and Tribal Cultural Resources

Alternative 1 would involve no new development. Therefore, there would be no impacts on archaeological resources, Tribal Cultural Resources, or significant historic structures in the Project area.

Geology and Soils

Alternative 1 would involve no new development. Therefore, there would be no impacts on geology and soils.

Global Climate Change and Greenhouse Gas

Alternative 1 would involve no new development. Therefore, there would be no impacts on greenhouse gas emissions.

However, the overall reduction in vehicle trips and associated emissions of criteria pollutants and greenhouse gases within the City and region as a result of increasing in-fill residential development, increasing transit-oriented development, increasing mixed uses, and increasing walkability and accessibility for bicyclists would not be realized.

Hazards and Hazardous Materials

Alternative 1 would involve no new development. Therefore, there would be no impacts on hazards and hazardous materials.

Hydrology and Water Quality

Alternative 1 would involve no new development. Therefore, there would be no impacts on hydrology and water quality.

However, the benefits of implementing Low Impact Development (LID) measures to increase infiltration and treatment of runoff, and the benefits of facilitating in-fill residential development and mixed uses in the City would not be realized.

Land Use and Planning

Alternative 1 would involve no new development, therefore, there would be no impacts on land use and planning.

However, Alternative 1 would be less effective at meeting the goals of the City's Housing Element and Station Square Transit Village than the Project.

Mineral Resources

There are no mineral resources in the City. Therefore, there would be no impacts.

Noise

Alternative 1 would involve no new development. Therefore, there would be no noise impacts versus unavoidable and potentially significant noise impacts under the Project.

The overall reduction in vehicle trips and associated traffic noise within the City and region as a result of increasing in-fill residential development, increasing transit-oriented development, increasing mixed uses, and increasing walkability and accessibility for bicyclists would not be realized.

Population and Housing

Alternative 1 would involve no new development. However, there would be less new housing to meet the community and regional need for market-rate housing. Therefore, overall, impacts on population and housing would be greater under Alternative 1 than under the Project, but would remain less than significant.

Public Services and Recreation

Alternative 1 would involve no new development. Therefore, there would be no impacts on public services and recreation.

Transportation and Circulation

Alternative 1 would involve no new development. Therefore, there would be no impacts on transportation and circulation.

However, the overall reduction in vehicle trips within the City and region as a result of increasing in-fill residential development, increasing transit-oriented development, increasing mixed uses, and increasing walkability and accessibility for bicyclists would not be realized.

Utilities

Alternative 1 would involve no new development. Therefore, there would be no impacts on utilities.

21.2 ALTERNATIVE 2: NO COMMERCIAL ALTERNATIVE

Alternative 2 would involve a slight variation of the Project, whereby the Arroyo at Monrovia Station Specific Plan area would be built out as proposed, except the proposed 7,080 square feet of commercial space would be used as residential space only. Therefore, this alternative would still involve development of 302 residential units, but no commercial uses.

Alternative 2 would fulfill the majority of the project goals, though it would not involve mixed uses, as proposed in the Project, due to the lack of commercial space. Under Alternative 2, all project objectives would be met except Objective 6, which calls for the provision of increase retail and commercial space in the Station Square Transit Village.

21.2.1 Comparison of Impacts

Aesthetics and Visual Resources

Alternative 2 would involve the same impacts on aesthetics and visual resources as the Project given the massing and footprint of the building under Alternative 2 would remain the same as the Project.

Agricultural and Forest Resources

There are no agricultural or forest resource uses in the Project area. As such, there would be no impacts related to Agricultural and Forest Resources.

Air Quality

Alternative 2 would involve slightly less vehicle trips and therefore, less emissions of criteria pollutants and greenhouse gases than the Project given the lack of commercial space.

Biological Resources

Alternative 2 has the same amount of development footprint as the Project (i.e., in terms of area and square footage). Therefore, localized impacts on biological resources would be the same under Alternative 2 as the Project and would remain less than significant with implementation of mitigation measures.

Cultural Resources and Tribal Cultural Resources

There are no known archaeological resources, Tribal Cultural Resources, significant historic structures, or paleontological resources in the Project area. Given that Alternative 2 would result in the same amount of development footprint as the Project, Alternative 2 would have the same

risk of inadvertent discovery of archaeological resources, Tribal Cultural Resources, and paleontological resources as the Project. Impacts would be less than significant with implementation of mitigation measures.

Geology and Soils

Alternative 2 has the same development footprint as the Project. Therefore, the potential for adverse impacts associated with geologic hazards (i.e., seismic impacts) would be the same under Alternative 2 as the Project and would remain less than significant.

Global Climate Change and Greenhouse Gas

Alternative 2 would involve slightly less vehicle trips and therefore less emissions of criteria pollutants and greenhouse gases than the Project given the lack of commercial space. Impacts would remain less than significant.

Hazards and Hazardous Materials

Alternative 2 would have the same impacts on hazards and hazardous materials as the Project given that the development footprint would be the same.

Hydrology and Water Quality

Alternative 2 has the same development footprint as the Project (i.e., in terms of square footage). Therefore, localized impacts on storm water runoff would be the same under Alternative 2 as the Project.

Land Use and Planning

Both Alternative 2 and the Project would be consistent with the City's land use policies and objectives as well as the development standards of the Zoning Code. However, the lack of commercial uses would not meet the City's General Plan goals and policies to increase commercial and mixed uses, and employment opportunities, in the City. Therefore, impacts on land use and planning would be greater under Alternative 2 than the Project.

Mineral Resources

There are no mineral resources in the City. Therefore, there would be no impacts under either the Project or Alternative 2.

Noise

Alternative 2 would involve slightly less vehicle trips and therefore less traffic noise impacts than the Project given the lack of commercial space. However, construction noise impacts would remain the same as the Project. Impacts would remain significant and unavoidable under Alternative 2.

Population and Housing

Alternative 2 would result in the same amount of housing to meet the community and regional need for market-rate housing. The proposed population increase under Alternative 2 would be the same as under the Project. Therefore, impacts on population and housing would be the same.

Public Services and Recreation

The proposed population increase under Alternative 2 would be the same as under the Project. The lack of commercial space under Alternative 2 would only slightly reduce demand for police and fire protection services. Therefore, Alternative 2 would have similar impacts on public services. Impacts on recreational facilities under Alternative 2 would the same as under the Project.

Transportation and Circulation

Alternative 2 would involve slightly less vehicle trips and therefore less traffic impacts than the Project given the lack of commercial space.

Utilities

Alternative 2 would likely result in the slightly less demand on potable water, wastewater disposal and solid waste disposal than the Project given the lack of commercial space.

21.3 ALTERNATIVE 3: REDUCED SPECIFIC PLAN

Alternative 3 would involve the development of 167 multi-family residential units within the Arroyo at Monrovia Station Specific Plan area. Under this alternative, the westernmost portion of the residential building would not be developed and no development would occur around the single-family residence. at 230 W. Evergreen Avenue that will remain in place, to reduce the magnitude and duration of construction noise on this residence and to further reduce the impact of the Project on the visual character of the neighborhood. With the elimination of the western portion of the building, development would be concentrated in the eastern half of the site.

Under this alternative, amenities would remain such as the swimming pool, public plazas and rooftop decks. However, the parking garage would be scaled back in size commensurate with the Alternative's reduction in 135 residential units so that a proportionate number of parking spaces associated with the 135 fewer dwelling units would be eliminated, and no public parking for METRO's Monrovia Gold Line Station would be provided. In addition, only nine affordable units would be constructed.

Project Objectives

Under a Reduced Specific Plan alternative, important benefits of the Project would be eliminated such as affordable housing and public parking for transit use Therefore, the following three out of the seven project objectives would not be met as well as under the Project:

Objective 2. Enhance the Station Square Transit Village by encouraging pedestrian activity, providing public open space and parking, and enhancing landscaping.

Objective 5. Provide attractive housing that offers a suite of residential amenities and increases Monrovia's housing options, including affordable housing for very low-income households.

Objective 7. Provide public automobile parking and bicycle parking for the public and for residents.

21.3.1 Comparison of Impacts

Aesthetics and Visual Resources

Impacts on aesthetics and visual resources associated with Alternative 3 would continue to be less than the visual impacts under the Project given the construction of fewer multi-story buildings in the Specific Plan area under Alternative 3. However, the reduced development around the single family residence at 230 W. Evergreen Avenue would improve compatibility of the Project with the visual character of the area. Impacts would remain less than significant on aesthetics and visual resources with implementation of mitigation measures.

Agricultural and Forest Resources

There are no agricultural or forest resource uses in Monrovia. As such, there would be no impacts related to Agricultural and Forest Resources under both scenarios.

Air Quality

Due to the fewer number of vehicle trips and reduction in building square footage associated with Alternative 3, there would be a slight decrease in emissions of criteria pollutants compared with the Project. Impacts would remain less than significant with implementation of mitigation measures.

In addition, the benefits associated with overall reduction in the number of vehicle trips and associated emissions of criteria pollutants and greenhouse gases within the City as a whole and region, as a result of increasing in-fill residential development, increasing transit oriented development, increasing mixed uses, and increasing transit use would be less under Alternative 3 than the Project.

Biological Resources

Alternative 3 would result in less development in the Project area as the Project (i.e., in terms of square footage). Therefore, localized impacts on biological resources would less under Alternative 3 as the Project and would remain less than significant with implementation of mitigation measures.

However, the benefits of the Project in providing additional housing and facilitating in-fill residential development and mixed uses in Monrovia would be reduced.

Cultural Resources and Tribal Cultural Resources

There are no known archaeological resources, Tribal Cultural Resources, significant historic structures, or paleontological resources in the Project area. Alternative 3 would result in less amount of ground disturbance as the Project. Therefore, Alternative 3 would still result in a

potential risk of inadvertent discovery of archaeological resources, Tribal Cultural Resources, and paleontological resources as the Project. Impacts would be less than significant with implementation of mitigation measures.

Geology and Soils

Alternative 3 would involve a less amount of ground disturbance as the Project. Therefore, the potential for adverse impacts associated with geologic hazards would be less under Alternative 3 as the Project and would remain less than significant.

Greenhouse Gas Emissions and Energy Consumption

Due to the lower number of vehicle trips and building square footage associated with Alternative 3, there would be a decrease in emissions of greenhouse gases and decrease in energy consumption compared with the Project. However, due to the relatively small decrease in vehicle trips overall, the overall magnitude of impacts in the City are anticipated to be similar to the Project and would remain less than significant. This alternative would have a lower impact than the Project.

In addition, the benefits associated with overall reduction in the number of vehicle trips and associated emissions of criteria pollutants and greenhouse gases within the City as a whole and region as a result of increasing in-fill residential development, increasing transit oriented development, increasing mixed uses would be less under Alternative 3 than the Project.

Hazards and Hazardous Materials

Buildout under Alternative 3 would result in a lower potential for exposure of people and property to hazards and hazardous materials with less ground disturbance. With implementation of mitigation measures, impacts would remain less than significant.

Hydrology and Water Quality

Alternative 3 would result in less ground disturbance as the Project. Therefore, localized impacts on stormwater runoff would be less than under the Project. Impacts would remain less than significant.

However, the benefits of the Project in facilitating in-fill residential development and mixed uses in the City to reduce development sprawl into open space, thereby protecting the region's watersheds, would be reduced.

Land Use and Planning

Alternative 3 would result in 135 fewer dwelling units than under the Project. The addition of affordable housing is not only a Project Objective but an objective of PD-12 and the City's Housing Element. Therefore, Alternative 3 would be less effective at meeting the goals of the City's Housing Element and PD-12 than the Project due to the reduction in multi-family housing and the reduction in the number of units that are affordable to very low income households. Nevertheless, impacts on Land Use and Planning would remain less than significant.

Mineral Resources

Mineral resources would not be affected by the Project or this alternative.

Noise

Reducing the amount of development in the western portion of the site in proximity to the single family residence at 230 W. Evergreen Avenue under Alternative 3 would reduce the time period of construction, and the corresponding magnitude of construction noise impacts on the residence. Nonetheless, a reduction in the development footprint would not result in a lowering of noise levels below a level of significance (i.e., noise levels are still expected to exceed standards during construction). Removing these residential units would result in an overall reduction in the square footage of construction and as a result, would reduce the duration of construction, thereby lessening the noise impacts on the resident to some extent because the resident would be exposed to a shorter time period of construction. Nevertheless, construction noise impacts would remain unavoidable and significant.

Reducing the number of residential units in the Project would also result in a decrease in operational noise levels due to traffic generated by the Project. Operational noise impacts would remain less than significant with implementation of mitigation measures

Finally, the benefits associated with the overall reduction in the number of vehicle trips and associated traffic noise within the City as a whole and region as a result of increasing in-fill residential development, increasing transit oriented development, and increasing mixed uses, would be less under Alternative 3 than the Project.

Population and Housing

Alternative 3 would result in less new housing to meet the community and regional need for market-rate housing as well as fewer affordable units. Therefore, overall, impacts on population and housing would be greater under Alternative 3 than under the Project, but would remain less than significant.

Public Services and Recreation

Alternative 3 would result in less population and housing in the City. Therefore, impacts on public services and recreational facilities in the City would be lower than under the Project and impacts would remain less than significant.

Transportation and Circulation

Due to the lower number of trips and reduction in building square footage associated with Alternative 3, there would be a slight decrease in vehicle trips compared with the Project. However, due to the relatively small decrease in trips overall, the overall magnitude of impacts in Monrovia are anticipated to be similar to the Project. This alternative would only have a slightly lower impact than the Project. Impacts would remain less than significant with implementation of mitigation measures.

In addition, the benefits associated with overall reduction in vehicle trips within the City as a whole and region as a result of increasing in-fill residential development, increasing transit oriented development, and increasing mixed uses would be less under Alternative 3 than the Project.

Utilities

Alternative 3 would result in less population and housing, less development and less building square footage in Monrovia than the Project. Therefore, Alternative 3 would result in less demand on potable water, wastewater treatment, and solid waste disposal than the Project. Impacts would be less than significant under either scenario.

21.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines (Section 15126[e][2]) stipulate, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Alternative 1, No Project Alternative, would result in the least environmental impacts, but it would not meet any of the project objectives or goals of the City's Housing Element. Alternative 2 would result in equal impacts on most issue areas as the Project, with the exception of slightly less impacts on air quality, greenhouse gas emissions, noise, traffic, and utilities. Objective 6 would not be met under Alternative 2. Alternative 3 would reduce construction noise impacts on the resident at 230 W. Evergreen Avenue and would have a slightly lower impact on public services, transportation, and utilities. However, Alternative 3 would have a greater impact on land use and planning and population and housing than the Project, as Alternative 3 would not involve the addition of as many affordable housing units or public parking for the Monrovia Gold Line Station. Alternative 3 would be the Environmental Superior Alternative, however, Alternative 3 would be less effective at meeting Project Objectives 2, 5, and 7.

Acronyms

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
BE	Business Enterprise Zone
CEQA	California Environmental Quality Act
EIR	Environmental Impact Report
HQTA	High Quality Transit Area
LID	Low Impact Development
PD-12	Planned Development-12 (Station Square Transit Village)
TPA	Transit Priority Area

22. CEQA-MANDATED SECTIONS

This Chapter evaluates the various assessment categories required by the California Environmental Quality Act (CEQA) Guidelines for EIR content. The findings of this EIR are presented below in terms of project-related potential cumulative impacts, growth-inducing effects, significant unavoidable impacts, and irreversible environmental changes.

Section 15128 of the CEQA Guidelines requires that the EIR "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." This EIR evaluates all of the environmental topic areas and questions included in CEQA Guidelines Appendix G (Environmental Checklist Form). No possible significant effects of the Project were excluded from analysis in this EIR.

CEQA Guidelines Appendix F (Energy Conservation) describes how energy conservation should be addressed in EIRs and states, “[CEQA] requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.” This analysis is contained in Chapter 11 along with the impact analysis on Global Climate Change and Greenhouse Gases.

22.1 CUMULATIVE IMPACTS

Section 15130(a) of the CEQA Guidelines requires that the EIR "discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable...." The CEQA Guidelines (Section 15355) define "cumulative impacts" as "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." The analyses of quantitative cumulative impacts in this EIR are based on the “summary of projections” method, as authorized by Section 15130(b)(1)(B) of the CEQA Guidelines.

22.1.1 Aesthetics and Visual Resources

Project impacts on public views or the visual character of the area would be less than significant. Public views of the San Gabriel Mountains to the north are only from area roadways and from the METRO Gold Line and are already partially obstructed by buildings and other structures. Buildout of the Project and cumulative projects has the potential to have a significant impact on the visual character of the area. However, required development standards under the Arroyo at Monrovia Station Specific Plan, as well as required Design Review, would help ensure that future development is designed in a manner to soften the transition between adjacent residential areas and the Project area. The Arroyo at Monrovia Station Specific Plan includes landscape design objectives and measures to buffer and screen the proposed development to minimize aesthetic impacts on the adjacent residences. Implementation of these measures would minimize impacts of the Project on the visual character of the area. Development of the cumulative projects is anticipated to be subject to similar standards. Finally, mitigation measures MM AES-1, MM AES-2, and MM AES-3 would ensure that short-term impacts on visual character is minimized, that lighting is appropriately directed, and that use of materials causing glare is avoided. Development of the cumulative projects is anticipated to be subject to similar requirements. Therefore, the Project would not result in a considerable contribution to any cumulative impacts on aesthetics and visual resources in the region.

22.1.2 Air Quality

The South Coast Air Quality Management District's (SCAQMD) 2016 Air Quality Management Plan (AQMP) (SCAQMD 2017) was designed to achieve attainment for all criteria air pollutants while still accommodating growth in the region. Projects that are consistent with the growth assumptions in the AQMP would not interfere with attainment of air quality standards, because this growth is included in the projections used to formulate the AQMP. Growth projections in the Southern California Association of Governments' 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016) were used as growth projections in the AQMP. The Project would result in an increase in growth representing approximately one third of the projected population growth in the 2016-2040 RTP/SCS for Monrovia. The Traffic Impact Study (see Appendix J) contains a list of projects that have recently been approved or are pending approval by the City. Population growth associated with the Project as well as the cumulative list of projects would not exceed the projected population growth in the 2016-2040 RTP/SCS and therefore, the AQMP. In addition, the Project's operational emissions would not exceed any SCAQMD emissions thresholds, including Localized Significance Thresholds (LSTs), and construction emissions would be reduced below SCAQMD emissions thresholds with implementation of standard conditions SC-1 through SC-3 and mitigation measure MM AIR-1. Implementation of mitigation measure MM AIR-2 would ensure that buildout under the Project would not exacerbate health risk associated with DPM emissions, including from the I-210. Therefore, the Project's contribution to cumulative air quality impacts in the region would be less than considerable and there would be less than significant cumulative impacts on air quality.

22.1.3 Agricultural Resources

There are no agricultural or forestry resources within and near Monrovia. Therefore, there would be no impacts, either from the Project or on a cumulative level.

22.1.4 Biological Resources

Implementation of the Project would consist of alteration of an already-developed area that does not support a wide diversity of biological resources. The majority of the Project area currently encompasses residential, industrial, and other urban development; no sensitive habitats that could support plant and wildlife species were identified during the field survey. Impacts to these resources could result in a potentially considerable contribution to significant cumulative impacts on these resources. However, mitigation measure MM BIO-1 to protect biological resources (nesting birds) required in this EIR would ensure that impacts are avoided or minimized, and that buildout would have a less than considerable contribution on cumulative impacts on biological resources in the region.

22.1.5 Cultural and Tribal Cultural Resources

There are no known potential cultural resources or Tribal Cultural Resources in the Project area; the only potential impacts would be inadvertent discovery of archaeological resources during construction. Mitigation measures MM CUL-1 through MM CUL-5 would also ensure that potentially significant impacts are avoided. Therefore, the Project would not have a considerable contribution to cumulative impacts on cultural resources or Tribal Cultural Resources in the region.

22.1.6 Geology and Soils

The effects of the cumulative projects on Geology and Soils are not of a nature to cause cumulatively significant effects from geologic impacts, or on soils, because such impacts are site-specific and would only have the potential to combine with impacts of the Project if they occurred in the same location. The Project and other projects in the vicinity would be required to comply with the California Building Code, the City's goals and policies, and mitigation measure MM GEO-1 designed to protect the population from geologic hazards. In addition, mitigation measures GEO-2 through GEO-5 would help protect against inadvertent disturbance of paleontological resources. Such requirements would ensure that potentially significant impacts are avoided. Therefore, buildout of the Project would not exacerbate exposure to geologic hazards, significant affect paleontological resources, and would not have a considerable contribution to cumulative impacts on geology and soils.

22.1.7 Greenhouse Gas Emissions and Energy Consumption

Evaluation of a project's impact on global climate change is inherently a cumulative analysis. No one project will result in adverse effects due to global climate change; it is a project's contribution to global emissions that are evaluated. Greenhouse gas (GHG) emissions from the Project would be below SCAQMD's interim emissions thresholds. In addition, the Project would be consistent with the SCAQMD's 2035 efficiency target of 3.0 $MTCO_2e$/yr/service population (see Chapter 11). These thresholds and targets are intended to control the emissions of individual projects so that the cumulative impact of regional development on global climate change and greenhouse gas emissions are less than significant. Thus, the Project would not impede progress towards the State's GHG reduction goals.

Although implementation of the Project and cumulative projects may increase vehicle miles traveled (VMT) and energy and natural gas usage within the Project area vicinity as compared to current conditions, increased density would provide for more efficient use of resources within Monrovia and ensure that the Project would not result in wasteful or inefficient use of energy resources.

Therefore, the Project would not have a considerable contribution to cumulative impacts on climate change and greenhouse gas emissions, and energy use.

22.1.8 Hazards and Hazardous Materials

Risks related to hazards and hazardous materials are typically localized in nature since they tend to be related to onsite existing hazardous conditions and/or hazards caused by the project's construction or operation. Detection of PCE and TCE in soil samples above PQLs, and TPH, PCE, TCE, carbon tetrachloride, metals, and Freon-113 in soil vapor samples above PQLs indicate a potential release of hazardous substances onto the subject property, specifically, in the southern half of the Project area at the two industrial properties at 1610 South Magnolia Avenue and 1551 South Primrose Avenue. This evidence of a release is subject to regulations under CERCLA and the California Health and Safety Code. Mitigation measure MM HAZ-1 would ensure that the Project is in compliance with CERCLA and the California Health and Safety Code that construction of the Project would not increase the risk of exposure to hazardous substances detected onsite. Mitigation Measure MM HAZ-2 would ensure that any asbestos containing material and/or lead based paint in existing buildings would be abated prior to demolition as well. It is anticipated that cumulative projects would be subject to similar requirements. Therefore, the

Project would not exacerbate risks of exposure to hazardous waste. The Project would not result in a considerable contribution to cumulative impacts associated with hazardous waste in the region with implementation of mitigation measures.

22.1.9 Hydrology and Water Quality

Buildout of Project would introduce impervious surfaces to the area and have the potential to increase pollutant loads into Monrovia waterways. This could have a significant effect offsite without implementation of mitigation measures or standard conditions. However, implementation of State regulations protecting water quality, the City's local water quality control standards imposed on new development and redevelopment, as well as City goals and policies that address water quality and urban runoff, covered under standard condition SC HYD-1, would ensure that the Project's impacts are minimized and less than cumulatively considerable. Therefore, buildout of the Project is not expected to have a considerable contribution to cumulative impacts on hydrology and water quality in the region.

22.1.10 Land Use and Planning

Implementation of the Arroyo at Monrovia Station Specific Plan would result in a net increase of the City's population, but the increase would be consistent with the City's General Plan goals and objectives in the Station Square Transit Village, which are designed to guide overall transit-oriented multifamily, mixed use development in the Planned Development- Area 12 (as discussed in Chapters 3 and 14). These goals and objectives include Housing Element Goal 2 to provide adequate housing site to facilitate the provision of a range of housing types to meet community needs, and Circulation Element Goal 4 to support the use of the public transportation, including light rail transit, to provide mobility to all City residents and encourage use of public transportation as an alternative to automobile travel. The City is not acquiring additional land, increasing its sphere of influence, nor proposing major changes to its infrastructure. A key feature of the Arroyo at Monrovia Station Specific Plan is to facilitate appropriate development efficiently and effectively in an area where roads and infrastructure already exist. Therefore, the Arroyo at Monrovia Station Specific Plan would not have a considerable contribution on cumulative impacts on land use in the area.

22.1.11 Mineral Resources

There are no mineral resources within and near Monrovia. Therefore, there would be no impacts, either from the Project or on a cumulative level.

22.1.12 Noise and Vibration

The EIR recommends implementation of mmitigation measure MM NOI-1 would ensure that interior and exterior noise standards are met, and acoustical analyses performed to confirm. This would ensure that new sensitive receptors in the area are not exposed to elevated ambient noise levels already in excess of State and local standards. Therefore, the Project would not have a considerable contribution to operational noise impacts in the area.

Mitigation measure MM NOI-2 is recommended to reduce substantial permanent increases in ambient noise levels associated with the proposed Project's recreational open space and amenity facilities. Mitigation measure MM NOI-3 (i.e., temporary noise barriers) is recommended to reduce the magnitude of potential construction noise impacts associated with buildout of the proposed

Project (see Chapter 16), as well as provisions to relocate the resident at 230 West Evergreen Avenue during construction. However, relocation would be subject to negotiation by and between the applicant and the occupant of 230 West Evergreen Avenue. Therefore, the applicant cannot guarantee the effectiveness or implementation of this mitigation at this time. Thus, this construction noise impact would remain significant and unavoidable even with the implementation of feasible mitigation measures. Two additional multifamily residential projects would likely be under construction at the same time, on either side of the Project site as well. Therefore, the Project would also have a considerable short-term contribution to cumulative construction noise impacts in the area. Cumulative short-term noise impacts would also be unavoidable and significant.

Cumulative traffic noise impacts from buildout of the Project and other development in the area were also modeled in Chapter 16. Results indicate that the Project would not result in a significant increase in traffic noise in the area nor would the Project result in a considerable contribution to cumulative impacts on traffic noise in the area.

22.1.13 Population and Housing

Implementation of the Project would result in an increase in the population of Monrovia by 630. However, the population increase, as a result of the proposed multi-unit residential development, is generally consistent with the projected increase in density and increase in transit-oriented development anticipated in the Monrovia General Plan Land Use and Circulation Element EIR (2008). The EIR states the following: "…land designated for housing will in many places be developed at a higher density than what was typical in the past in the focus areas, thus providing housing for a greater number of people per acre and providing transit-oriented development opportunities (p. 3.8-3)." The EIR goes on to state that this growth does not qualify as a significant impact to population and housing, in part due to the growth management policies and environmental regulations established by the City, as well as the State and Federal governments. This Project is similar to the types of projects considered in the Land Use and Circulation Element. Overall, the Project would increase the population of Monrovia, but the Project would result in a less than significant increase in population. Therefore, the Project would not have a considerable contribution to cumulative population impacts or cumulative impacts on housing in the region.

22.1.14 Public Services and Recreation

Buildout of the Project would place additional incremental demands on the City's fire protection and emergency medical services, police services, schools, recreational facilities, and other public facilities (e.g., libraries). Impacts on police services and other public facilities were determined to be less than significant as the proposed growth under the Project is consistent with assumptions in the General Plan. Therefore, the Project would not have a considerable contribution to cumulative impacts on these services. In addition, the Project would be subject to the City's Development Impact fees or in lieu fees to offset additional incremental demand for fire protection services, for additional schools, or additional recreational facilities created by new and/or more intense development through standard conditions SC PS-1 and SC PS-2, and mitigation measure MM PS-1. Therefore, the Project would not have a considerable contribution to cumulative impacts on public services and recreation in the area.

22.1.15 Transportation and Circulation

The results of the traffic impact analysis for the Project show that all study area intersections would operate at satisfactory levels of service (LOS) both without and with the Project as well as under the cumulative scenario. The Project would also not result in significant impacts on segments of the I-210 or at I-210 interchanges. Therefore, the Project is not expected to have a considerable contribution to cumulative impacts on traffic and transportation systems in the region.

22.1.16 Utilities and Service Systems

Significant cumulative impacts to utility systems would occur if the utility providers were unable to provide adequate services to serve all cumulative projects. The majority of the cumulative projects are similar to the proposed project regarding construction and operational activities. The cumulative projects would increase the demand for utility services. However, utility service providers are given the opportunity to respond to an inquiry for information regarding potential increase in demand on their services for all cumulative projects, and development fees are assessed on a project-specific basis to mitigate for the resulting increase in demand for service. As discussed in Chapter 20, buildout of the Project would increase demand on utilities and service systems including potable water, treatment of wastewater, and solid waste disposal. However, calculations indicate that there would be suitable capacity within existing systems to service the growth anticipated under the Project taking into account the expected overall growth within the City. In addition, many goals and policies proposed under the Arroyo at Monrovia Station Specific Plan would encourage increased recycling and conservation to reduce demand on these utilities as well. Implementation of mitigation measures MM UT-1 through MM UT-3 would also ensure that can and will serve letters are obtained for water and wastewater service for and that the applicant for the Project will pay in lieu fees for minor improvements to water infrastructure in the area (new booster pump and 980 feet of pipeline). Standard condition SC UT-1 would ensure that applicants comply with the City of Monrovia's Construction and Demolition Disposal and Recycling Program as well. Therefore, buildout of the Project is not expected to have a considerable contribution to cumulative impacts on utilities and service systems in the region.

22.2 GROWTH-INDUCING EFFECTS

CEQA Guidelines Section 15126.2(d) requires that the EIR discuss "...the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment."

Implementation of the Arroyo at Monrovia Station Specific Plan would result in a net increase of the population of Monrovia. Development would be consistent with the City's General Plan policies and development standards. However, the City is not acquiring additional land, increasing its sphere of influence, nor proposing major changes to its infrastructure. A key feature of the Arroyo at Monrovia Station Specific Plan is to facilitate appropriate development efficiently and effectively in areas where roads and infrastructure already exist. Therefore, no substantial, detrimental, growth-inducing effect is expected.

22.3 SIGNIFICANT UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires that an EIR discuss "significant environmental effects which cannot be avoided if the proposed project is implemented." The impacts listed below are identified as significant and unavoidable for one of four reasons: (1) no potentially feasible mitigation has been identified; (2) potential mitigation has been identified but may be found by the Lead Agency to be infeasible; (3) with implementation of feasible mitigation, the impact still would not, or might not, be reduced to a less-than-significant level; or (4) implementation of the mitigation measure would require approval of another jurisdictional agency, whose approval will be pursued by the Lead Agency but cannot be guaranteed as of the publication of this EIR.

As discussed above, the Project would result in unavoidable significant short-term noise impacts on adjacent residents due to construction noise. The EIR recommends implementation of Good Neighbor features and mitigation measures (i.e., temporary noise barriers and temporary relocation of affected residents) to reduce the magnitude of potential construction and operational noise impacts associated with buildout of the Project (see Chapter 16). However, noise thresholds of significance could still be exceeded for adjacent residents. In addition, two additional multi-family residential projects would likely be under construction at the same time, on either side of the Project area as well. Therefore, the Project also have a considerable short-term contribution to cumulative construction noise impacts in the area.

22.4 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(c) requires that the EIR discuss "significant irreversible environmental changes which would be caused by the proposed project should it be implemented." Since the City of Monrovia is already mostly developed and the proposed Project would not significantly change the circulation pattern or make other major changes to backbone infrastructure facilities, there would not be any irreversible physical changes caused by the Arroyo at Monrovia Station Specific Plan.

Implementation of the Arroyo at Monrovia Station Specific would result in an irreversible commitment of energy resources, primarily in the form of fossil fuels, including fuel oil, natural gas, and gasoline or diesel fuel for construction equipment and vehicles. However, because new development would be required by law to comply with the California Building Code and the City's energy conservation goals and policies, implementation of the Project would not be expected to use energy in a wasteful, inefficient, or unnecessary manner.

The consumption or destruction of other non-renewable or slowly renewable resources would also result during construction, occupancy, and use of project under the Arroyo at Monrovia Station Specific Plan. These resources would include, but would not be limited to, lumber, concrete, sand, gravel, asphalt, masonry, metals, and water. Implementation of the Project would also irreversibly use water and solid waste landfill resources. However, development under the Arroyo at Monrovia Station Specific Plan would not involve a large commitment of those resources relative to supply, nor would it consume any of those resources wastefully, inefficiently, or unnecessarily, especially considering ongoing City conservation and recycling programs.

Acronyms

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
AQMP	Air Quality Management Plan
CEQA	California Environmental Quality Act
DPM	Diesel Particulate Matter
EIR	Environmental Impact Report
GHG	Greenhouse Gas
I-210	Interstate 210
LOS	Level of Service
LST	Localized Significance Threshold
METRO	Los Angeles County Metropolitan Transportation Authority
MM	Mitigation Measure
MTCO2e	metric tons of carbon dioxide equivalents
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SCAQMD	South Coast Air Quality Management District
VMT	Vehicle Miles Traveled
Yr	Year

References Cited

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