DRAFT EIR

Prepared For:

City of Glendale
Planning and Neighborhood Services Division
633 E. Broadway, Room 103
Glendale, CA 91206

Enclave Multifamily Residential Project

Environmental Impact Report

SCH No. 2014081003

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OCTOBER 2014

Draft

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1.0 INTRODUCTION

This introduction is intended to provide the reader with important information regarding (1) the purpose and legal authority of an environmental impact report (EIR); (2) a description of the environmental review being conducted by the City of Glendale for this Project; (3) the lead, responsible, and trustee agencies for the Project; (4) the availability of the Draft EIR; and (5) the general format and content of this EIR.

PURPOSE AND LEGAL AUTHORITY

This Draft EIR evaluates the proposed Enclave Multifamily Residential Project ("Project"). It was designed to implement the City of Glendale's (the "City") and the Successor Agency's (the "Agency"; previously the Glendale Redevelopment Agency) goals of revitalizing the San Fernando Road Corridor Redevelopment Project area. The Project is a multifamily residential project consisting of a 5-story apartment building with 71 multifamily residential units with a mezzanine above the fifth story. The multifamily residential units would consist of 1 studio unit; 18 one-bedroom units; and 52 two-bedroom units designed in similar layouts and sizes. The Project would also provide 161 parking spaces in a 2-level subterranean parking structure.

The Project site would include an approximately 761-square-foot indoor recreation room, a landscaped sundeck on the second floor, and common outdoor areas. The Project site is designed to include approximately 4,954 square feet of landscaping throughout the property. An extensive amount of plants would be provided along the entire perimeter to provide a more attractive view for the tenants, visitors, and the surrounding community. A selection of canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) would be located along West Elk Avenue and within the northwestern portion of the site, and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. The courtyard area in the northwest portion of the site would include furnishing, benches, and/or other seating. Development of the Project site would require the demolition and removal of a 1-story building occupied by a wholesale auto parts business and a surface parking lot.

This Draft EIR has been prepared in accordance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the City of Glendale's CEQA documentation procedures and requirements. This EIR identifies and discusses potential Project-specific and cumulative environmental impacts that may occur should the proposed Project be implemented. The intent of this EIR is to: (1) be an informational document, which serves to inform public agency decision makers and the general public of the potential environmental impacts of the Project; (2) identify possible ways to minimize or

avoid any potential significant impacts either through mitigation or the adoption of alternatives; and (3) disclose to the public required agency approvals.

The principal use of an EIR is to provide input and information to the comprehensive planning analysis undertaken for this Project. Given the important role of the EIR in this planning and decision-making process, it is important that the information presented in the EIR be factual, adequate, and complete. The standards for adequacy of an EIR, defined in Section 15151 of the State CEQA Guidelines, are as follows:

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

This EIR has been prepared in accordance with these standards for adequacy of an EIR under CEQA.

SCOPE AND CONTENT

The City determined that an EIR should be prepared for the Project. As a result, a Notice of Preparation (NOP) was prepared and circulated between August 1 and September 2, 2014, for the required 30-day review period. The purpose of the NOP was to solicit early comments from public agencies with expertise in subjects that would be discussed in the Draft EIR. The NOP and comments received during the NOP review period are contained in **Appendix 1.0** of this EIR. Agencies or interested persons who did not respond during the public review period of the NOP will have an opportunity to comment during the public review period for the EIR, as well as at subsequent hearings on the proposed Project.

Topics evaluated in this Draft EIR have been identified based on the responses to the NOP and the review of the Project by City staff. The City determined through this initial review process that impacts related to the following environmental topics are potentially significant and require an assessment in this Draft EIR:

- Aesthetics
- Air Quality
- Greenhouse Gas Emissions
- Land Use & Planning
- Noise
- Public Services
- Recreation
- Utilities & Service Systems

Issues to Be Resolved

The overall purposes of the CEQA process are as follows:

- Identify the significant effects to the environment of a project, identify alternatives, and to indicate the manner in which those significant effects can be avoided or mitigated.
- Provide full disclosure of the Project's environmental effects to the public, the agency decision makers who will approve or deny the project, and responsible and trustee agencies charged with managing resources (e.g., recreation, air quality) that may be affected by the project.
- Provide a forum for public participation in the decision-making process with respect to environmental effects.

Section 15123(b) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choices among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved regarding the Project include decisions by the lead agency as to whether:

- The Draft EIR adequately describes the environmental impacts of the Project.
- The recommended mitigation measures should be adopted or modified.
- Additional mitigation measures need to be applied.

LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The public agency that has the principal responsibility for carrying out or approving a project is designated as the "Lead Agency" under CEQA. For the Enclave Multifamily Residential Project, the City of Glendale is the Lead Agency. As such, the City is responsible for ensuring that the EIR satisfies the procedural and substantive requirements of CEQA, and for considering and certifying the adequacy and completeness of the EIR prior to making any decision regarding the Project. During preparation of the EIR, agencies, organizations, and persons who the City believed might have an interest in the proposed Project were specifically contacted.

"Responsible Agency" means a public agency that proposes to carry out or approve a project for which the Lead Agency is preparing or has prepared an EIR or Negative Declaration. For purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency having discretionary approval authority over the Project. During the NOP review period, no other public agency identified itself as a Responsible Agency.

"Trustee Agency" means a state agency having jurisdiction by law over project-affected natural resources that are held in trust for the people of the State of California (e.g., California Department of Fish and Wildlife, State Lands Commission). During the NOP review period, no public agency identified itself as a Trustee Agency.

EIR REVIEW PROCESS

CEQA requires lead agencies to solicit and consider input from other interested agencies, citizen groups, and individual members of the public. This Draft EIR was released by the City for a public review period in accordance with Section 15087 of the CEQA Guidelines. A Notice of Availability (NOA) of this Draft EIR for review was provided with copies of the Draft EIR to the State Clearinghouse and to regional and local public agencies. In addition, the NOA and Draft EIR were made available on the City of Glendale's website at www.glendaleca.gov/government/departments/community-developement/planning-division/current-projects/environmental-review.

This EIR is being circulated for a 30-day public review and comment period. During this period, written comments concerning the adequacy of the Draft EIR may be submitted by any interested person and/or affected agency, to the City of Glendale Community Development Department, Planning and Neighborhood Services Division, at the address provided below under the heading "Availability of the Draft EIR."

Following the completion of this review period, the City of Glendale will examine all comments received on the Draft EIR and will prepare responses in accordance with Section 15088 of the State *CEQA Guidelines*. All oral and written comments with respect to environmental issues discussed in the EIR will be responded to in writing and will be incorporated into a Final EIR. At least 10 days prior to a hearing to certify the Final EIR, proposed responses to comments on the Draft EIR by responsible agencies will be sent to those agencies. The Final EIR will be reviewed and considered by the City of Glendale City Council for certification in accordance with Section 15090 of the State CEQA Guidelines prior to considering the proposed Project for approval. No aspect of the proposed Project will be approved until after the Final EIR is certified.

AVAILABILITY OF THE DRAFT EIR

This Draft EIR is being distributed directly to agencies, organizations, interested groups, and persons for comment during a 30-day formal review period in accordance with Section 15087 of the State CEQA Guidelines. This Draft EIR and the full administrative record for the Project, including all studies, are available for review during business hours between 7:00 AM and 5:00 PM Monday through Friday or by appointment at the City of Glendale Community Development Department, Planning and Neighborhood

Services Division (Planning Counter). Interested individuals, organizations, and public agencies can also provide written comments on this Draft EIR to the address listed below.

City of Glendale

Community Development Department – Planning and Neighborhood Services Division
633 East Broadway, Room 103
Glendale, California 91206
Attention: Rathar Duong, Planner
Planning and Neighborhood Services Division Phone: (818) 937-8185

Comments may also be sent by facsimile to (818) 240-0392 or by email to rduong@glendaleca.gov, with "Enclave Multifamily Residential Project Draft EIR" in the subject line. Agency responses should include the name of a contact person within the commenting agency.

ORGANIZATION OF THE EIR

As stated, a principal objective of CEQA is that the environmental review process be a public one. In meeting this objective, the EIR must inform members of the general public, decision makers, and technically oriented reviewers of the physical impacts associated with a proposed Project.

The content and organization of this Draft EIR are designed to meet the requirements of CEQA, the State CEQA Guidelines, the City's standards, as well as to present issues, analyses, mitigation, and other information in a logical and understandable way. A description of the organization of this EIR and the content of each section is provided in the following. This Draft EIR is organized into the following sections:

Section 1.0, Introduction, provides information and a brief overview of the Project, the environmental review process, the availability of the Draft EIR, and the organization of the Draft EIR.

Section 2.0, Summary, presents a concise summary of the environmental information, analysis, impacts, mitigation measures, and conclusions in this EIR.

Section 3.0, Project Description, presents a description of the Project, which identifies the location of the Project site; the objectives of the Project, the characteristics of the proposed mixed-use building and associated parking; the relationship of the Project to other plans and policies; and the approvals being requested.

Section 4.0, Environmental Impact Analysis, contains a detailed environmental analysis of the potential for the Project to result in significant environmental effects with respect to each of the topics evaluated

in this EIR. Each topic is addressed in a separate subsection and contains a description and assessment of the environmental setting, the regulatory framework, Project impacts, cumulative impacts, and mitigation measures.

Section 5.0, Alternatives, discusses alternatives to the proposed Project that have been developed and analyzed to provide additional information on ways to avoid or lessen the impacts of the proposed development. These alternatives include the "No Project Alternative," required by the State CEQA Guidelines, along with other alternatives.

Section 6.0, Effects Not Found to Be Significant, presents information used by the City to determine why certain environmental effects of the Project were found not to be significant and therefore are not evaluated in detail in this EIR.

Section 7.0, Other CEQA Sections, contains a discussion of other topics required by the State CEQA Guidelines to be included in an EIR, including the potential for the Project to induce additional growth, and a discussion of any potentially significant irreversible environmental changes that could result from Project implementation.

Section 8.0, Organizations and Persons Consulted, lists persons involved in the preparation of this Draft EIR or who contributed information incorporated into this Draft EIR.

Section 9.0, References, lists the principal documents, reports, maps, and other information sources referenced in this EIR.

Appendices, provides information and technical studies (provided on CD inside the back cover) that support the environmental analysis contained within the Draft EIR.

2.0 SUMMARY

This section provides information on the background of the Project, as described in **Section 3.0, Project Description**, assessed in this EIR, and a summary of the information in this EIR identifying the potential environmental impacts of the Project, the measures identified to mitigate these impacts, and the alternatives evaluated to provide additional information on ways to avoid or lessen these impacts.

OVERVIEW OF PROPOSED PROJECT

The Project site is located approximately 1,200 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate (I) 5 (I 5; Golden State Freeway), State Route (SR) 134 (Ventura Freeway) and SR 2 (Glendale Freeway) provide regional access to the Project site. The Project site consists of two continuous parcels located adjacent to the north of West Elk Avenue between San Fernando Road and South Pacific Avenue. The addresses are 509 and 525 West Elk Avenue. The Project site is 0.72 acres (31,250 square feet) and is developed with an existing 1-story building and surface parking lot occupied by a wholesale auto parts business.

Existing uses surrounding the Project site consist of the 5-story ICIS apartment complex to the west, auto repair including Hamlet's BMW service and a medical office building to the north, a two-story apartment building to the east, and single and multifamily residential uses to the south.

The Project proposes to replace the existing building with a 5-story building with two levels of subterranean parking. The Project would provide 71 multifamily residential units with mezzanine above the fifth story. The two-level subterranean parking structure would accommodate 161 parking spaces. The Project is designed to include 6,138 square feet of common open space that includes the swimming pool, an approximately 761 square foot indoor recreation room, common areas, and a landscaped sundeck. The swimming pool area on the ground floor and the sundeck on the second floor would include furnishing, benches, and other seating. The patios and balconies will provide a total of 6,035 square feet of private open space. The Project site is designed to include approximately 4,954 square feet of landscaped area. A selection of canopy and ground cover plant materials (e.g. trees, shrubbery, and flowers) would be planted along the perimeter of the site and would be designed to adhere to the Glendale Comprehensive Design Guidelines while seeking to compliment adjacent development.

The site is designated as Mixed Use on the City of Glendale General Plan Land Use Map and Commercial/Residential Mixed Use (SFMU) on the City's Zoning Map. The SFMU zoning classification allows for a mix of residential and commercial, just commercial, or just residential.

PROJECT OBJECTIVES

The State CEQA Guidelines require an EIR to include a statement of the objectives of the Project that address the underlying purpose. The applicant is proposing to develop a 5-story apartment building with 71 multifamily residential units. The development also features a mezzanine level above the fifth story and two levels of subterranean parking. The objectives of the Project are to:

- Redevelop an underutilized property with residential uses for the community of Glendale.
- Provide a well-designed apartment project that is compatible and complementary with surrounding land uses.
- Provide housing opportunities in an urban setting in close proximity to employment opportunities, public facilities, goods, and services.
- Implement Redevelopment Plan objectives, but without redevelopment agency assistance.
- Increase property tax revenues to the City of Glendale.
- Generate construction employment opportunities in the City and in the region.
- Design a project with architectural features and materials appropriate for the location of the site, the size of the building, and surrounding uses.

BACKGROUND

In 1992, the Glendale Redevelopment Agency[1] prepared and adopted the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan Area"). The Redevelopment Plan Area includes 750 acres generally extending along the length of the San Fernando Road corridor and bounded by the I-5 Freeway and the Union Pacific Railroad/Los Angeles County Metropolitan Transportation Authority (UPRR/MTA) right-of-way to the west.

Assembly Bill (AB) x126 and AB1484 (collectively "The Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. However, the City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Dissolution Act. The Successor Agency[2] is responsible for winding down the activities of the former Glendale Redevelopment Agency as required by the Dissolution Act.

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1 The Glendale Redevelopment Agency was created in 1972 for the purpose of improving, upgrading and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It was a legal and separate public body, with separate powers and a separate budget from the City. ABx126 and AB1484 (collectively "The Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. The City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Dissolution Act.

2 The Successor Agency undertakes enforceable obligations, performs duties pursuant to the enforceable obligations in compliance with the Dissolution Act. The Successor Agency staff also serves as staff to the Oversight Board.

The Project site is located within the Redevelopment Plan Area and is subject to its applicable provisions and guidelines. The primary objective of the Redevelopment Plan is to eliminate and prevent the spread of blight and deterioration within the Redevelopment Plan Area.

SUMMARY OF ALTERNATIVES

This EIR considers a range of Alternatives to the Project were in accordance with State CEQA Guidelines Section 15126.6. This section of the CEQA Guidelines requires that an EIR describe and evaluate a range of reasonable alternatives to a project to promote informed decision-making.

The Alternatives to the Project evaluated in this Draft EIR include:

- Alternative 1 – No Project/No Development
- Alternative 2 – 50 Percent Reduced Density Alternative
- Alternative 3 – Nonresidential Alternative

A brief description of each of these Alternatives is provided below with a summary of the evaluation of each.

According to the CEQA Guidelines, the discussion of alternatives should focus on alternatives to a project or its location that can feasibly avoid or substantially lessen the significant effects of the proposed project. **Section 4.0, Environmental Impact Analysis**, of this EIR concludes that Project implementation would result in significant and unavoidable environmental impacts. These include short-term and cumulative noise and vibration impacts during construction; exterior noise levels from vehicle operations; long-term and cumulative impact to recreation facilities, cumulative noise impacts during construction; cumulative impacts to fire, cumulative impacts to police, and cumulative impacts to solid waste. In response to these impacts, the City of Glendale identified and considered several alternatives to the Project to determine if these alternatives could avoid or substantially lessen these significant impacts.

Alternative 1 – No Project/No Development

The No Project/No Development Alternative is required to be evaluated by Section 15126(2)(4) of the State CEQA Guidelines. As required by the State CEQA Guidelines, the analysis must examine the impacts which might occur if the site is left in its present condition, as well as what may reasonably be 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 the No Project/No Development Alternative, the Project site would remain in its current and existing condition as a wholesale auto parts use and parking lot.

Alternative 2 – 50 Percent Reduced Density Alternative

The 50 Percent Reduced Density Alternative considers development of the entire 0.72-acre site with a reduced residential density. This alternative would include the development of 35 multifamily residential units in a 3-story building. This alternative would allow for the building to be three levels, approximately 44 feet above grade with one level of subterranean consisting of 79 parking spaces.[3] The layout of the land uses under this alternative would not change. Similar to the Project, the first floor would include the recreation room and the second floor would include the landscaped sundeck.

By reducing the amount of development, the construction duration of this alternative would also be reduced. In addition, a reduction in the number of residential dwelling units would reduce the amount of direct population generated under this alternative, leading to a reduction in demand for public services, recreation, and utilities.

This Alternative was chosen because it would lessen, but not avoid, the significant and unavoidable impacts to recreation facilities, and the significant and unavoidable cumulative impacts to recreation, fire, police, and solid waste. This Alternative would still result in significant and unavoidable short-term noise and vibration impacts during construction, exterior noise levels from vehicle operations, and cumulative noise impacts during construction.

Alternative 3 – Nonresidential Alternative

The Nonresidential Alternative includes approximately 80,000 square feet of non-residential space. The nonresidential use would total approximately 40,000 square feet of medical office space and approximately 40,000 square feet of general office space. Each of the five floors would average approximately 16,000 square feet of both medical and general office space. This Alternative would provide approximately 4,954 square feet of landscaped area.

The subterranean parking structure would accommodate 308 parking spaces and 30 secured bicycle spaces across four levels.[4] Of the total amount of parking provided, 10 spaces would be designated as handicap-accessible spaces. Vehicle access to the parking structure would be from W. Elk Avenue.

Similar to the Project, the height of the Alternative building would be 73 feet above ground and would be designed as a contemporary structure utilizing various different building materials in conformance

3 The parking spaces are determined according to the Glendale Municipal Code Section 30.32 and would provide 70 spaces for 35 one- and two-bedroom residential units and 9 guest parking spaces for a total of 79 parking spaces.

4 200 spaces (5 spaces per 1,000 square feet) would be required for the medical office use and 108 spaces (2.7 spaces per 1,000 square feet) would be required for the general office use.

with the City's Comprehensive Design Guidelines. The size and massing of the Alternative building would be similar to the design of the Project building.

By eliminating the residential component from the Project, the commercial uses would not directly result in the generation of new residents within the City of Glendale, thus reducing significant park and recreation impacts identified for the Project. In addition, the elimination of the outdoor patios/private balconies would avoid the significant exterior noise impact. However, Alternative 3 would generate 154 AM peak-hour trips, 198 PM peak-hour trips, and a total of 1,885 daily trips. When compared to existing conditions, implementation of the Nonresidential Alternative would result in an increase of 152 AM peak-hour trips, an increase of 193 PM peak-hour trips, and an increase of 1,868 daily trips.[5] When compared to the Project, Alternative 3 would result in an increase of 118 AM peak-hour trips, an increase of 154 PM peak-hour trips, and an increase of 1,413 daily trips. The increase in traffic generated by the Nonresidential Alternative would be greater than the traffic generated by the Project and could result in potentially significant traffic impacts to local intersections.

This Alternative was chosen because it would avoid the significant exterior noise level impact from vehicle operations and substantially lessen, but not avoid, the significant and unavoidable impacts to recreation facilities, and would substantially lessen, but not avoid, the significant and unavoidable cumulative impacts to recreation, fire, police, and solid waste. This Alternative would still result in significant and unavoidable short-term noise and vibration impacts during construction and cumulative noise impacts during construction.

Environmentally Superior Alternative

State CEQA Guidelines Section 15126.6(e) (2) requires an EIR to identify an environmentally superior alternative among those evaluated in an EIR. Of the alternatives considered in this section, the No Project/No Development Alternative is environmentally superior to the other alternatives, because this alternative would avoid the significant and unavoidable impacts identified for the Project.

According to the State CEQA Guidelines, if the No Project/No Development Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Of the other alternatives considered, Alternative 3—Nonresidential Alternative would be considered environmentally superior, as it would avoid the significant exterior noise impact as the 65 dB(A) exterior threshold only applies to private outdoor balconies or patios. Alternative 3 would also result in a substantial reduction in the significant and unavoidable recreation impact when compared to the Project. However, the significant and unavoidable

5 The existing wholesale auto parts' building generates 2 AM peak-hour trips, 2 PM peak-hour trips, and a total of 17 daily trips.

short-term and cumulative noise impacts during construction and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative. Furthermore, this Alternative would increase the amount of air emissions, greenhouse gas emissions, vehicle related noise, and vehicular traffic generated when compared to the Project.

Alternative 3 would not meet the Project objective to redevelop an underutilized property with residential uses and would not provide housing opportunities in close proximity to employment opportunities, public facilities, goods, and services. The Nonresidential Alternative would not fully complement the multifamily uses surrounding the site to the east, south, and west; and would therefore only partially meet the objective of a development that is compatible and complementary with surrounding uses. Therefore, this Alternative would not be considered the environmentally superior alternative.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

Concerns related to the potential environmental effects of the Project that were raised include potential air quality impacts from construction and operation of the Project, potential cultural resource impacts during construction, and potential traffic impacts on local and County roadways in the Project vicinity. These concerns have been addressed in **Section 4.0, Environmental Impact Analysis** in the Draft EIR.

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

A summary of the potential environmental impacts of the Project and the measures identified to mitigate these impacts is provided in **Table 2.0-1, Summary of Project Impacts** below for each topic addressed in this EIR. **Table 2.0-1** has been arranged in four columns: the identified impact under each EIR issue area; the level of significance prior to implementation of mitigation; mitigation measures that would avoid or reduce the level of impacts; and the level of significance after implementation of mitigation measures, if applicable. Compliance with existing City programs, practices, and procedures are assumed for purposes of determining the level of significance prior to mitigation.

A summary of the alternatives to the Project to promote informed decision making are provided after **Table 2.0-1**.

Table 2.0-1
Summary of Project Impacts

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Aesthetics			
Existing views across the site would be modified with Project development. Development of the Project would provide views of these visual resources from the upper floors and outdoor terraces on the second and fifth floors. The mass of the proposed structures would potentially impact views across the Project site towards the Verdugo Mountains to the north and the San Rafael Hills to the northeast. However, existing views across the site towards the Verdugo Mountains are currently obstructed. While portions of the San Rafael Hills are visible from this portion of the City, views of the mountains from the Project site are also obstructed by existing development and vegetation. Because the existing views of the Verdugo Mountains are obstructed, the Project would not degrade the views with development.	Less than significant	No mitigation measures are required.	Less than significant
The Project would result in a similar mass and height when compared to the existing five-story, mixed-use development (ICIS apartment project) west of the site. The architectural design would result in a visually compatible structure when compared	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
to the surrounding uses while improving site conditions. The architectural design of the proposed building incorporates design features associated with the contemporary style, with design elements, colors, and materials suggestive of craftsman-style architecture. Furthermore, the Project would provide canopy and ground cover plant materials (i.e. trees, shrubbery, flowers) along W. Elk Street, thus improving the visual character of the Project site.			
The lighting proposed would be limited to the amount required to safely light the driveway, the sidewalks along W. Elk Avenue, open space, and courtyard areas within the Project site. All outdoor lighting would be directed onto the driveway, walkways, and public areas and away from adjacent properties and public rights-of-way to avoid any potential light or glare impacts. Therefore, the new onsite lighting would not result in substantial increases in light or glare that would affect any light-sensitive uses on or near the site, such as the residential uses east, south, and west of the Project site.	Less than significant	No mitigation measures are required.	Less than significant
Residential uses adjacent to the east, west, and south are the closest sensitive uses to the Project site. A portion of the ICIS building to the west	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
would be shaded generally from 9:00 AM to 10:00 AM in the summer and until 11:00 AM in the winter. A portion of the 2-story apartment building to the east would generally be shaded from 3:00 PM to 5:00 PM in the summer months, and from 1:00 PM to 3:00 PM in the winter months. However, the duration of the shadows cast on the adjacent residential development does not exceed the 2-hour standard.			
Air Quality and Greenhouse Gas Emissions			
The Project would generate approximately 185 residents, which would account for approximately 6 percent of the anticipated increase of residents within the City between 2014 and 2020. This total is within the growth projections for the City of Glendale as adopted by Southern California Association of Governments. Because the South Coast Air Quality Management District (SCAQMD) has incorporated these same projections into the Air Quality Management Plan (AQMP), the Project would be consistent with the projections in the 2012 AQMP.	Less than significant	No mitigation measures are required.	Less than significant
The SCAQMD daily construction emissions thresholds are 75 pounds/day of VOC, 100 pounds/day of NOx, 550 pounds/per day of CO, 150	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
pounds/day of Sox, 150 pounds/day of PM10, and 55 pounds/day of PM2.5. Construction of the Project would result in maximum unmitigated daily emissions of 16.11 pounds/day of volatile organic compounds (VOC), 10.61 pounds/day of nitrogen oxides (NOx), 13.01 pounds/day of carbon monoxide (CO), 0.02 pounds/day of sulfur oxides (SOx), 1.18 pounds/day of particulate matter less than 10 microns (PM10), and 1.14 pounds/day of particulate matter less than 2.5 microns (PM2.5), which do not exceed SCAQMD thresholds for criteria pollutants.			
Operational emissions would be generated by both stationary and mobile sources as a result of normal day-to-day activity on the Project site after occupancy. The SCAQMD daily operation emission thresholds are 55 pounds/day of VOC, 55 pounds/day of NOx, 550 pounds/day of CO, 150 pounds/day of SOx, 150 pounds/day of PM10, and 55 pounds/day of PM2.5. Operational emissions would result in 3.32 pounds/day of VOC, 4.24 pounds/day of NOx, 22.06 pounds/day of CO, 0.04 pounds/day of SOx, 2.63 pounds/day of PM10, and 0.77 pounds/day of PM2.5 Stationary emissions would be generated by the consumption of natural gas for space	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
and water heating devices. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. The emissions associated with the Project would not exceed the SCAQMD's recommended operational emission thresholds.			
The SCAQMD localized significant thresholds (LST) are 58 pounds/day of NOx, 359 pounds/day of CO, 3 pounds/day of PM10 and 2 pounds/day of PM2.5 during construction. The operational LST thresholds are the same for NOx and CO as construction and are 1 pound/day for both PM10 and PM2.5. The Project would result in 10.61 pounds/day of NOx, 13.01 pounds/day of CO, 1.18 pounds/day of PM10, and 1.14 pounds/day of PM2.5 during construction. The Project would result in 0.19 pounds/day of NOx, 5.98 pounds/day of CO, 0.03 pounds/day of PM10, and 0.03 pounds/day of PM2.5 during operation. Therefore, potential construction and operation emissions would not exceed SCAQMD LST thresholds.	Less than significant	No mitigation measures are required.	Less than significant
No Project intersection falls under the SCAQMD's criteria requiring a more detailed localized CO impact analysis.	Less than significant	No mitigation measures are required.	Less than significant
During Project construction, certain pieces of construction equipment	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
could emit odors associated with exhaust. Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402 (Nuisance). In addition, odors emitted from certain pieces of construction equipment would dissipate quickly and be short term in duration.			
The Project would result in short-term emissions of greenhouse gas emissions (GHGs) during construction. Operational emissions would be generated by both area and mobile sources because of normal day-to-day activities. Taking the existing wholesale auto parts business into account, the Project would result in a net increase of 638.45 metric tons of carbon dioxide (MTCO2E) equivalents per year, which is less than the SCAQMD's screening threshold of significance for all land use projects of 3,000 MTCO2E per year.	Less than significant	No mitigation measures are required.	Less than significant
Land Use and Planning			
Development of the Project would be allowed by the City's General Plan Mixed Use land use designation and SFMU zoning, both of which allow for residential use. The Project site is located in an urbanized area surrounded by auto repair shops, medical office, parking, and medium	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
density residential uses. The Project would involve the development of a 5-story project with residential use configured and designed to be compatible with surrounding uses. The Project would not divide the established community structure.			
The Project would be consistent with applicable goals within the Land Use, Housing Element, Circulation, Safety, Open Space and Conservation, Recreation, Air Quality, and Noise Elements of the General Plan. The Project would also be consistent with the goals of the Redevelopment Plan.	Less than Significant	No mitigation measures are required.	Less than significant
Noise			
The existing uses on the Project site generate vehicular related noise along S. Pacific Avenue and W. Colorado Street. The Project is forecast to result in an increase of 455 daily trips, an approximately 2 percent increase of existing volumes along W. Colorado Street and 3 percent increase of existing volumes along S. Pacific Avenue. Since the Project would not increase roadway noise levels by 3 dB(A) or greater, land uses located along study area roadways would not be affected by any additional traffic noise.	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Due to the level of traffic noise along Colorado Street on the northern side of the site and along S. Pacific Avenue, normal daytime parking-structure average noise levels would not likely be audible due to the masking of noise by these sources. Furthermore, all floors and walls would conform to California Building Code compliant walls, which would further reduce short-term noise levels generated within the subterranean parking structure.	Less than significant	No mitigation measures are required.	Less than significant
Other noise sources that may be associated with the parking structure areas include the use of sweepers in the early morning or late evening hours.	Significant	**4.4-1** On-site sweeper operations shall be restricted to between the hours of 7:00 AM and 10:00 PM.	Less than significant
Future residents located on the Project site, as well as off-site uses, including nearby sensitive receptors, may experience noise due to an increase in human activity within the area from people living on the premises and utilizing the on-site amenities including common areas.	Less than significant	No mitigation measures are required.	Less than significant
Existing exterior nose levels in the project vicinity range from 61.1 dB(A) to 64.6 dB(A). These noise levels are not uncommon for a typical urban setting. As previously mentioned, the Project is forecast to result in 455 additional daily trips. On-site roadway	Less than significant (interior noise levels); potentially significant (exterior noise	**4.4-2** Prior to the issuance of occupancy permits, noise sensitive residential land uses shall be designed so that interior noise levels attributable to exterior sources do not exceed 55 dB(A) during the daytime and 45 dB (A) during nighttime when doors and windows are closed. An	Less than significant (interior) Significant and unavoidable (exterior): patios and exterior usable areas (e.g., balconies) would still be exposed to exterior noise levels above the 65 db(A) threshold for residential uses.

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
noise as a result of the proposed Project would be similar to existing conditions, since the slight increase in trips generated would not be enough to noticeably increase ambient noise levels. However, as noted in Exhibit 1 and 2 in the City's General Plan Noise Element, the exterior 2030 noise contours for the Project site would be greater than 65 dB(A) CNEL and could result in interior noise levels above the 55 dB(A) threshold during the daytime and 45 dB(A) threshold during the nighttime. The Project includes private outside patios or balconies for each unit. Noise levels would be greater than the City's exterior noise threshold of 65 dB(A) for patio/balcony areas, and exterior noise impacts would be potentially significant. Average sound transmission loss between the exterior and interior environment is a minimum of 20 db(A) with windows closed. Since ambient noise levels range from 61.1 db(A) to 64.4 db(A) in the vicinity of the Project, interior noise levels would be between 41.1 db(A) and 44.4 db(A). Therefore, interior noise levels in the apartment building would not be above the interior threshold of 45 dB(A) CNEL, and interior noise impacts would be less than significant.	levels)	acoustical analysis of the noise insulation effectiveness of proposed construction shall be required and documented during permit review, showing that the building materials and construction specifications are adequate to meet the interior noise standard. Examples of building materials and construction specifications which may be used to meet the interior noise standard include but are not limited the following: • Windows shall be doubled paned, mounted in low air filtration rate frames, and have a minimum sound transmission coefficient rating of 30 or greater. • Air conditioning units may be provided to allow for windows to remain closed. • Roof or attic vents facing southward shall be baffled.	

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Land uses surrounding the Project site consist mostly of residential and commercial uses. Loaded trucks are capable of producing approximately 87 VdB at 25 feet, or 92 VdB at 15 feet, which is the approximate distance to multifamily uses to the west and east of the site. This would exceed the threshold of 80 VdB for residences and buildings where people normally sleep. High noise-producing (and vibration-producing) activities during construction would be scheduled to occur between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses. Nonetheless, potential impacts due to vibration would be considered to be significant.	Potentially significant	**4.4-3** Demolition, earthmoving, and ground-impacting operations shall be conducted so as not to occur in the same period. **4.4-4** Select demolition method to minimize vibration, where possible (e.g., sawing masonry into sections rather than demolishing it by pavement breakers). **4.4-5** Operate earthmoving equipment on the construction site as far away from vibration sensitive sites as possible.	Significant and unavoidable
Noise levels generated during construction would primarily affect the commercial and residential uses adjacent to the Project site. Noise levels generated by heavy equipment can range from approximately 73 dB(A) to noise levels in excess of 80 dB(A) when measured at 50 feet. Construction activities associated with the Project would, on average, occur at approximately 25 feet from the existing residential uses. Most construction activities would occur at a distance greater than 25 feet from a sensitive receptor. Potential construction-related noise impacts are	Potentially significant	**4.4-6** All construction activity within the City shall be conducted in accordance with Section 8.36.080, construction on buildings, structures and projects, of the City of Glendale Municipal Code. **4.4-7** The following construction best management practices (BMPs) shall be implemented to reduce construction noise levels: • Ensure that construction equipment is properly muffled according to industry standards and be in good working condition. • Place noise-generating construction equipment and locate construction	Although the mitigation measures identified would reduce noise levels to the maximum extent feasible, impacts during construction would remain significant and unavoidable.

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
considered significant due to exceeding the noise threshold of 65 dB(A) for residential and 70 dB(A) for the surrounding uses, as allowed by the Glendale Municipal Code. Construction traffic would generate noise along access routes to the proposed development areas. Given that it takes a doubling of average daily trips on roadways to increase noise by 3 dB(A), the noise-level increases associated with construction-vehicle trips along major arterials in the City of Glendale would be less than 3 dB(A), and potential impacts would be less than significant.		staging areas away from sensitive uses, where feasible. • Schedule high noise-producing activities between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses. • Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources. • Use electric air compressors and similar power tools rather than diesel equipment, where feasible. • Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes. • Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party. **4.4-8** Construction staging areas along with the	

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
		operation of earthmoving equipment within the Project area shall be located as far away from vibration-and noise-sensitive sites as possible.	
Cumulative development from related projects would not result in a cumulative impact in terms of a substantial permanent increase in ambient noise levels. A substantial permanent increase is most likely to originate from an increase in noise levels from roadway traffic. Overall, the Project's traffic contribution would not be considered cumulatively considerable and would be less than significant. With regard to stationary sources, a cumulatively significant impact could result from cumulative development. The major stationary sources of noise that would be introduced in the area by related projects would include parking structures and sweeper operations. Since these projects would be required to adhere to City noise standards, all the stationary sources would be required to provide shielding or other noise abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple related projects would interact to create a significant combined noise impact. Because of	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
this, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur and, therefore, the impact would be less than significant.			
The closest related project, the CCTAN/Colorado Mixed Use Project at 507-525 W. Colorado Street, is located approximately 200 feet from the Project site. The nearest residential use to both projects is the ICIS apartment complex which is located adjacent to the west of the Project site and approximately 130 feet southwest of the CCTAN/Colorado Mixed Use Project. As previously identified, the Project would likely result in 92 VdB at the ICIS apartment complex. The CCTAN/Colorado Mixed Use Project would result in 64 VdB at the ICIS apartment complex, which would not exceed the 80 VdB threshold for residential uses. Since the CCTAN/Colorado Street Mixed Use Project would not contribute as a second vibration source that would potentially impact the ICIS Mixed Use Project, cumulative vibration impacts would be less than significant. It should be noted that the mitigation measures identified for the Project would also apply to the CCTAN/Colorado Mixed Use Project and any other related projects, and would reduce noise levels	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
to the maximum extent feasible.			
Noise impacts are localized in nature and decrease with distance. Consequently, in order to achieve a cumulative increase in noise, more than one source emitting high levels of noise would need to be in close proximity to the noise receptor. As previously indicated, the CCTAN/Colorado Mixed Use Project and the proposed Project are located near the ICIS apartment complex. Concurrent construction activity by both projects at the ICIS apartment complex would be approximately 74 dB(A) which would exceed 65 dB(A) for residential uses. The mitigation measures identified for the Project would also apply to the CCTAN/Colorado Mixed Use Project, and would reduce noise levels to the maximum extent feasible. However, the combined noise impacts of the Project combined with related projects during construction would remain significant and unavoidable.	Potentially Significant	Implementation of **MM 4.4-2** through **MM 4.4-8** would be required.	Significant and unavoidable cumulative impacts
Public Services			
Fire Protection & Emergency Services			
The new residential units would create additional demand on the Glendale Fire Department, specifically to Station 21, which would have first response duties. The increase in residents within	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
the City would not substantially impact the current fire services and would not result in the need for any new or the physical alteration to any existing governmental facility.			
The additional residents associated with the Project would result in an increase in emergency medical responses. The Project is located within the response district for BLS 21, which currently averages 340 calls per month. The Project would generate an additional 15 emergency medical services (EMS) calls every month, above the considered performance workload of 350 responses per month for a basic life support ambulance. The Project site is located within a 1-mile radius of both BLS 21 and BLS 22 and, in the event that BLS 21 is unable to respond to an EMS call from the Project site, BLS 22 would respond to the EMS call. Therefore, BLS 21 and BLS 22 would handle the EMS calls from the Project site and would not result in the need for any new or the physical alteration to any existing governmental facility.	Less than significant	No mitigation measures are required.	Less than significant
Impacts associated with these additional residents would include an increase in emergency medical responses, fire protection responses, fire prevention inspections, public education activities, participation in	Significant	No mitigation measures are available at this time.	Significant and unavoidable cumulative impacts

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
community events, and ongoing relations with businesses and homeowners associations. The increases in residents and commercial tenants within the City could result in the need to expand existing fire facilities or the need for new fire facilities to maintain existing fire services. For these reasons, implementation of related projects was considered to result in a significant fire service impact. As discussed previously, the Project would not result in significant impacts to the Glendale Fire Department on a project-specific level. The Project, however, would contribute to the significant impact and would be considered to be cumulatively considerable. For this reason, fire impacts are considered to be significant.			
Police Protection			
The new residential units would create additional demand on Glendale Police Department, specifically in Reporting District No. 263 in the southern portion of the City. The 2014 officer-to-population ratio within the City is 1.24 sworn officers per 1,000 residents. The increase in residents within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
existing governmental facility.			
The increase in City residents by the Project would generate additional calls for service. The Project would generate approximately 11 calls per month, or approximately 132 calls per year, for police services which would not seriously impact police department operations. The Project would not result in the need for any new or the physical alteration to any existing governmental facility.	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
Implementation of related projects and the associated increase in population would increase the demand for police protection services and could require the need for the construction of new or physically altered facilities to accommodate the increased demand associated with the related projects. This would result in a significant cumulative impact. As discussed previously, the Project would not result in significant impacts to the Glendale Police Department on a project-specific level. The Project, however, would contribute to the significant impact and would be considered to be cumulatively considerable. For this reason, impacts are considered to be significant.	Significant	No mitigation measures are available at this time.	Significant and Unavoidable Cumulative impacts
Schools			
The Project would add 8 students to Edison Elementary for a projected enrollment of 862 students which would be above the operating capacity of 751 students; would add 3 students to Roosevelt Middle School for a projected enrollment of 832 students which would be below the operating capacity of 1,206; and would add 3 students to Glendale High School for a projected enrollment of 2,693 students which is below the operating capacity of 3,802 students. All schools serving the Project site are currently operating	Significant for Edison Elementary; less than significant for Roosevelt Middle School and Glendale High School	**4.5.3-1** As authorized by SB 50, the project applicant shall pay school impact fees to the GUSD prior to the issuance of building permits. The current fee schedule for residential development is $3.20 per square foot.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
under capacity except for Edison Elementary, which is currently operating over capacity, and would not require the provision of new or physically alter existing school facilities. Potential school impacts would be considered less than significant for Roosevelt Middle School and Glendale High School.			
Recreation			
The City currently has a park land–to–resident ratio of approximately 1.46 acres of parkland for every 1,000 residents. Existing park facilities are currently heavily used due to the deficit in parkland in the City. The increase in use of neighborhood and community parks in the City that would result from the increase in residents associated with the Project is considered significant. While Harvard Mini Park, Pacific Park and the Community Center, and the Pacific Community Pool are physically the closest facilities to the Project site, all parks in the city could be affected as residents could use any park and recreation facility anywhere in the City.	Significant	**4.6-1** The applicant shall pay the Parks & Library Impact Fee pursuant to Glendale Municipal Code Section 4.10 that was in effect at the time the project was deemed complete for Stage I Design Review.	The Project would be required to pay development impact fees to minimize the project's impact on parks and recreation land and facilities. Under CEQA, the payment of the full nexus study development impact fee amount constitutes mitigation of project-related impacts on parks and recreation land and facilities within Glendale. However, because the reduced Phase-in fee amount will be paid, this fee payment is not considered full mitigation and is not equal to the full fair-share per unit fee for multifamily residential projects of $18,751 per multifamily unit. Consequently, impacts would be significant and unavoidable.
The recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project. Construction of the recreational	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
amenities would not result in significant impacts, but would contribute to the overall short-term construction impacts.			
Utilities and Service Systems			
Water Service			
New development on the Project site would result in an increase in demand for operational uses, including landscape irrigation, maintenance and other activities on the site. Projected water demand for the Project would be 12.8 acre-feet per year. According to the City's Urban Water Management Plan (UWMP), water supplies in the City would remain adequate through the year 2035 to meet the demands of existing uses and projected growth, with a small surplus at that time.	Less than significant	No mitigation measures are required.	Less than significant
Sewer			
Sewage from the Project site goes to the Hyperion Treatment Plant, which Glendale has access to through the Amalgamated Agreement. With the Hyperion Treatment Plant currently operating 88 million gallons-per-day below capacity, adequate capacity exists to treat Project-generated average effluent of 8,924 gallons-per-day.	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
The Project would be responsible for a percentage of the total capital budget for the sewer basin in which it is located, which would result in a capital mitigation fee assessed to the Project.	Significant	**4.7.2-1** The project applicant shall pay a sewer capacity increase fee for the Project's sewage increase to the lines within the City where the particular project is located to alleviate sewer impacts. These collected fees shall be deposited by the City of Glendale into a specially created account to be used to fund capacity improvements to the City-wide sewer system.	Less than significant
Solid Waste			
Solid waste generated on the Project site would be deposited at the Scholl Canyon Landfill, which is owned by the City of Glendale, or one of the landfills located within the County of Los Angeles. The annual disposal rate at the Scholl Canyon facility is 200,000 tons per year. Combined with the increase of 25 tons per year in solid waste generated by the Project, the annual disposal amount would increase to approximately 200,025 tons per year. With a total remaining capacity of 3.4 million tons, the Scholl Canyon facility would meet the needs of the City and the Project for approximately 16 years. Because the Project would be required to implement a waste-diversion program aimed at reducing the amount of solid waste disposed in the landfill, the amount of solid waste generated would likely be less than the amount	Less than significant	No mitigation measures are required.	Less than significant

Project Impacts	Impact without Mitigation	Mitigation Measures	Impact with Mitigation
estimated.			
As part of the Project, the Applicant would implement a waste diversion program in an effort to help the City meet its waste diversion goal of 50 percent as mandated by State law (Senate Bill 1016 and Assembly Bill 939). The Project would enclose trash collection areas and would provide a recycling area to reduce the amount of solid waste sent to the landfill. It is anticipated that waste carts for household trash, recycling, and green waste will be provided.	Less than significant	No mitigation measures are required.	Less than significant
There is presently insufficient permitted disposal capacity within the existing system serving Los Angeles County. The Project, in combination with other development, could contribute to insufficient permitted disposal capacity by contributing additional solid waste to regional landfills. Development under the Project would also contribute construction debris to regional landfills, increasing the cumulative effect. Therefore, the Project's contribution to the cumulative impact would be considered cumulatively considerable, and would be a significant and unavoidable impact.	Significant	No feasible mitigation measures exist.	Significant and Unavoidable Cumulative Impact

3.0 PROJECT DESCRIPTION

The description of the Enclave Multifamily Residential Project (the "Project") presented in this section serves as the basis for the environmental analysis contained in this Environmental Impact Report (EIR). This section identifies the location, objectives, and characteristics of the Project, and the intended uses of this EIR, as required by Section 15124 of the State *California Environmental Quality Act (CEQA) Guidelines*.

PURPOSE OF PROJECT DESCRIPTION

The purpose of the Project Description in an EIR is to describe a project in a manner that is meaningful to the public, reviewing agencies, and decision makers. As described in Section 15124 of the *CEQA Guidelines*, a complete Project Description must contain the following information: (1) a precise location and the boundaries of the project, which is shown on a detailed map, along with a regional map of the location of the project; (2) a statement of the objectives sought by the project, which should include the underlying purpose of the project; (3) a general description of the project's technical, economic, and environmental characteristics; and (4) a statement briefly describing the intended uses of the EIR. This includes a list of the agencies that are expected to use the EIR in their decision making, a list of permits and other approvals required to implement the project, and a list of related environmental review and consultation requirements imposed by federal, state, or local laws, regulations, and policies. The State *CEQA Guidelines* state that an adequate Project Description need not be exhaustive, but should provide a level of detail necessary for the evaluation and review of the potentially significant environmental effects of the project.

PROJECT LOCATION AND SITE CHARACTERISTICS

As illustrated in **Figure 3.0-1**, **Regional Location and Project Vicinity**, the Project site is located in the western portion of the City of Glendale (the "City"). The Project site is located approximately 1,200 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate 5 (I-5; Golden State Freeway), State Route (SR) 134 (Ventura Freeway), and SR-2 (Glendale Freeway) provide regional access to the Project site.

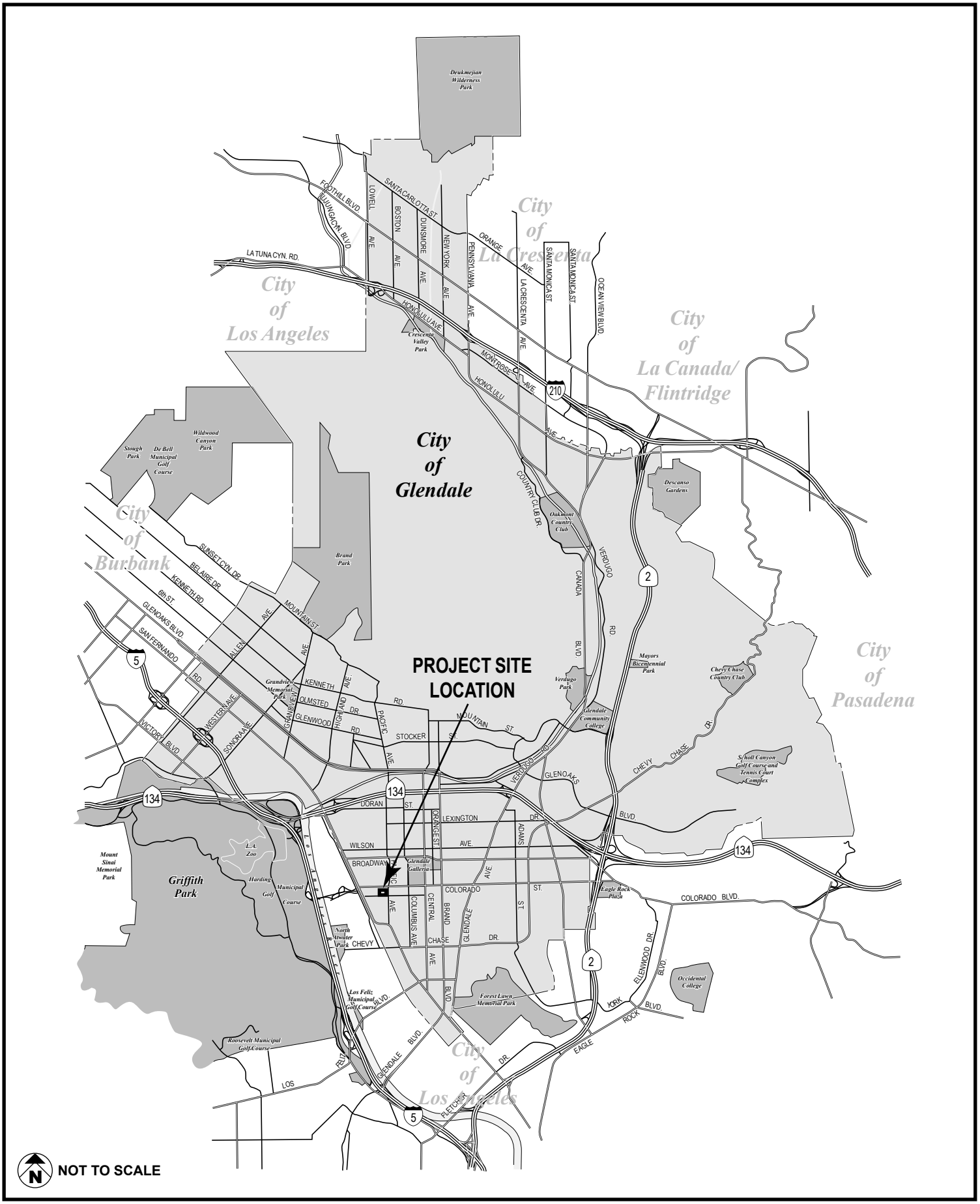
As illustrated in **Figure 3.0-2, Project Site Location**, the Project site consists of two continuous parcels of land located north of W. Elk Avenue between San Fernando Road and S. Pacific Avenue. The addresses are 509 and 525 W. Elk Avenue. The Project site is bound on the south by W. Elk Avenue, on the west by the five-story ICIS apartment complex, on the north by auto repair including Hamlet's BMW service and a medical office building, and on the east by a 2-story apartment building.

The Project site is approximately 0.72 acres (31,250 square feet) and is currently developed with a 1-story concrete block building occupied by a wholesale auto parts business and accompanying surface parking lot.

The Project site is designated as Mixed Use on the City of Glendale General Plan Land Use Map and Commercial/Residential Mixed Use (SFMU) on the City's Zoning Map. The purpose of the SFMU zoning district is to provide an appropriate mix of commercial and residential activities in conformance with the City's General Plan. This district allows for a mix of residential and commercial, or just commercial, or just residential (stand-alone) land uses. The only exception to this provision applies to lots fronting San Fernando Road, Broadway, and Colorado Street where commercial uses are required along the street frontage.

The Project site is also located in the San Fernando Road Corridor Redevelopment Project Area. In 1992, the Glendale Redevelopment Agency[1] prepared and adopted the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan"). The Project site is located within the boundaries of the Redevelopment Project Area, which includes 750 acres generally located along the length of the San Fernando Road corridor in Glendale, as well as the portions of Broadway and Colorado Street that extend from San Fernando Road to downtown Glendale.

1 The Glendale Redevelopment Agency was created in 1972 for the purpose of improving, upgrading, and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It was a legal and separate public body, with separate powers and a separate budget from the City. ABx1 26 and AB 1484 (collectively, "The Redevelopment Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. The City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Redevelopment Dissolution Act.



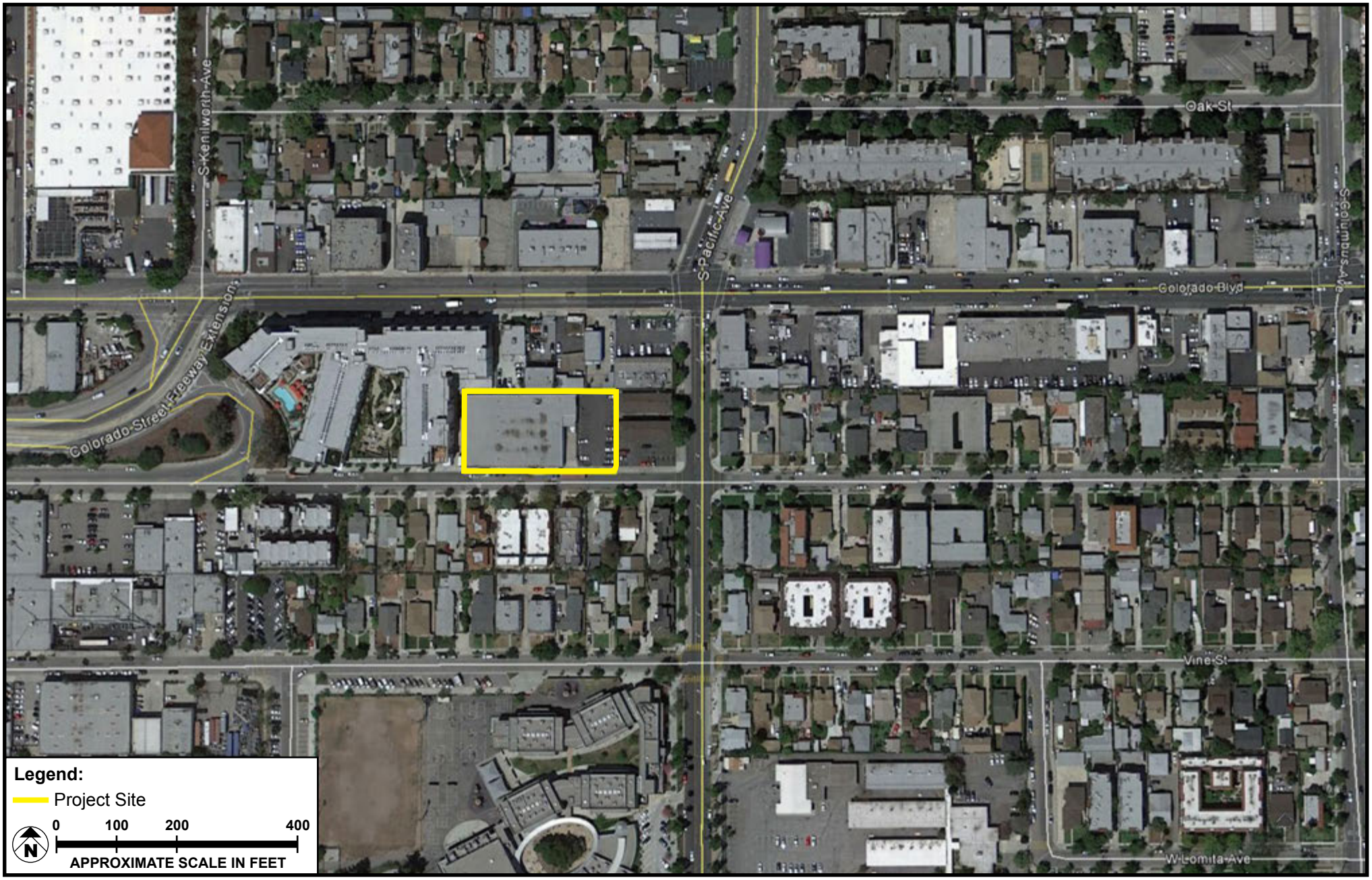
SOURCE: Meridian Consultants, LLC - July 2014

FIGURE **3.0-1**

Meridian Consultants

Regional Location and Project Vicinity

064-002-14



SOURCE: Google Earth – 2014

FIGURE **3.0-2**

Meridian Consultants

Project Site Location

064-002-14

PROJECT OBJECTIVES

The *CEQA Guidelines* require an EIR to include a statement of the objectives of the Project that address the underlying purpose. The Applicant (Allen Chachi) is proposing to develop a 5-story apartment building with 71 multifamily residential units. The development also features a mezzanine level above the fifth story and two levels of subterranean parking. The objectives of the Project are to:

- Redevelop an underutilized property with residential uses for the community of Glendale.
- Provide a well-designed apartment project that is compatible and complementary with surrounding land uses.
- Provide housing opportunities in an urban setting in close proximity to employment opportunities, public facilities, goods, and services.
- Implement the Redevelopment Plan objectives, but without redevelopment agency assistance.
- Increase property tax revenues to the City of Glendale.
- Generate construction employment opportunities in the City and in the region.
- Design a project with architectural features and materials appropriate for the location of the site, the size of the building, and surrounding uses.

PROJECT CHARACTERISTICS

The State *CEQA Guidelines* require an EIR to include a general description of the technical, economic, and environmental characteristics of a proposed Project.

The 71 multifamily residential units would consist of 1 studio unit, 18 one-bedroom units, and 52 two-bedroom units. The first floor would include the recreation room, in addition to four one-bedroom units, and 10 two-bedroom units. The Project would provide common open space in the form of an entrance lobby along W. Elk Avenue, and private open space in the form of patios attached to the residential units. The second floor would include four one-bedroom units, 10 two-bedroom units, and a landscaped sundeck for use by residents. The third and fourth floors would contain four one-bedroom units, and 10 two-bedroom units. The fifth floor would contain the studio unit, in addition to two one-bedroom units and 12 two-bedroom residential units. All residential units would include private open space in the form of balconies. **Figure 3.0-3, First Level Floor Plan,** illustrates the general layout for the first floor. **Figure 3.0-4, Second Level Floor Plan,** illustrates the general layout of the second floor. **Figure 3.0-5, Third and Fourth Level Floor Plan**, illustrates the general layout of the third and fourth floors. **Figure 3.0-6, Fifth Level Floor Plan**, illustrates the general layout of the fifth floor.

The studio apartment would be 705 square feet. The one-bedroom apartments would consist of similar floor plans and would range in size from 828 to 865 square feet. The two-bedroom apartments would also have similar floor plans, and would range in size from 1,132 to 1,411 square feet.

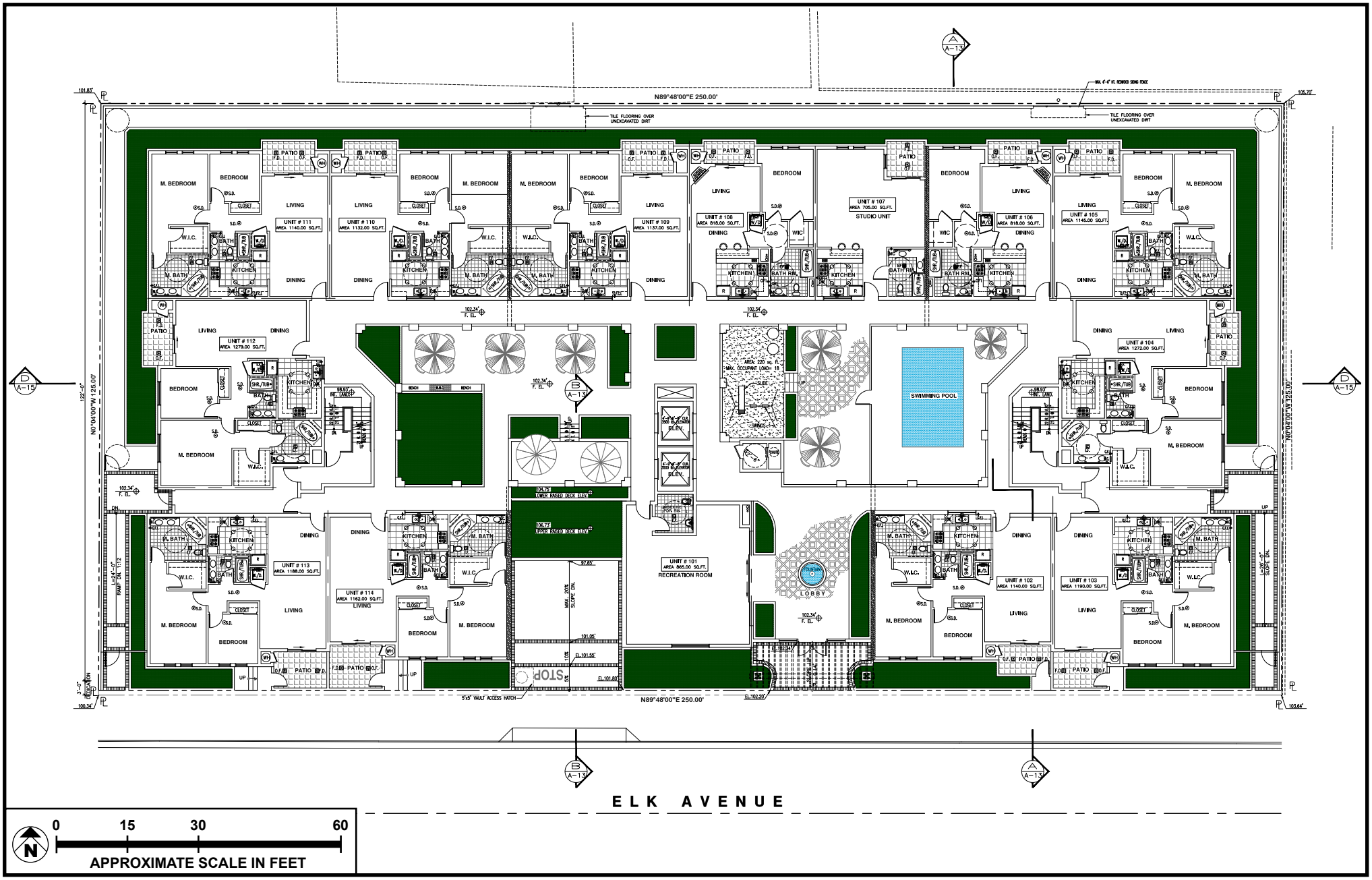
Table 3.0-1, Proposed Development, provides a summary of the number of studio, one-bedroom, and two-bedroom units proposed on the site, along with the parking for the Project.

Table 3.0-1
Proposed Development

Unit Type	Number of Units	First Floor	Second Floor	Third Floor	Fourth Floor	Fifth Floor
Studio	1	-	-	-	-	1
One bedroom	18	4	4	4	4	2
Two bedroom	52	10	10	10	10	12
Total Units	**71**	**14**	**14**	**14**	**14**	**15**
Parking Spaces	161	-	-	-	-	-

Architectural Design

The architectural design of the proposed building incorporates design features associated with the contemporary interpretation of a traditional style, with design elements, colors, and materials suggestive of the craftsman style architecture. **Figure 3.0-7, North Elevation From W. Elk Avenue**, and **Figure 3.0-8, East and West Elevations**, provide elevations of the proposed building. As shown in **Figure 3.0-7** and **Figure 3.0-8**, these elevations illustrate the primary building materials proposed for the exterior of the building, including stucco, concrete, siding, and metal. Project has been designed as a contemporary structure utilizing various different building materials in conformance with the City of Glendale Multi-Family Residential/Mixed Use Design Guidelines. The total height of the building would be approximately 73 feet with five stories plus a mezzanine level, consistent with SFMU zoning designation.



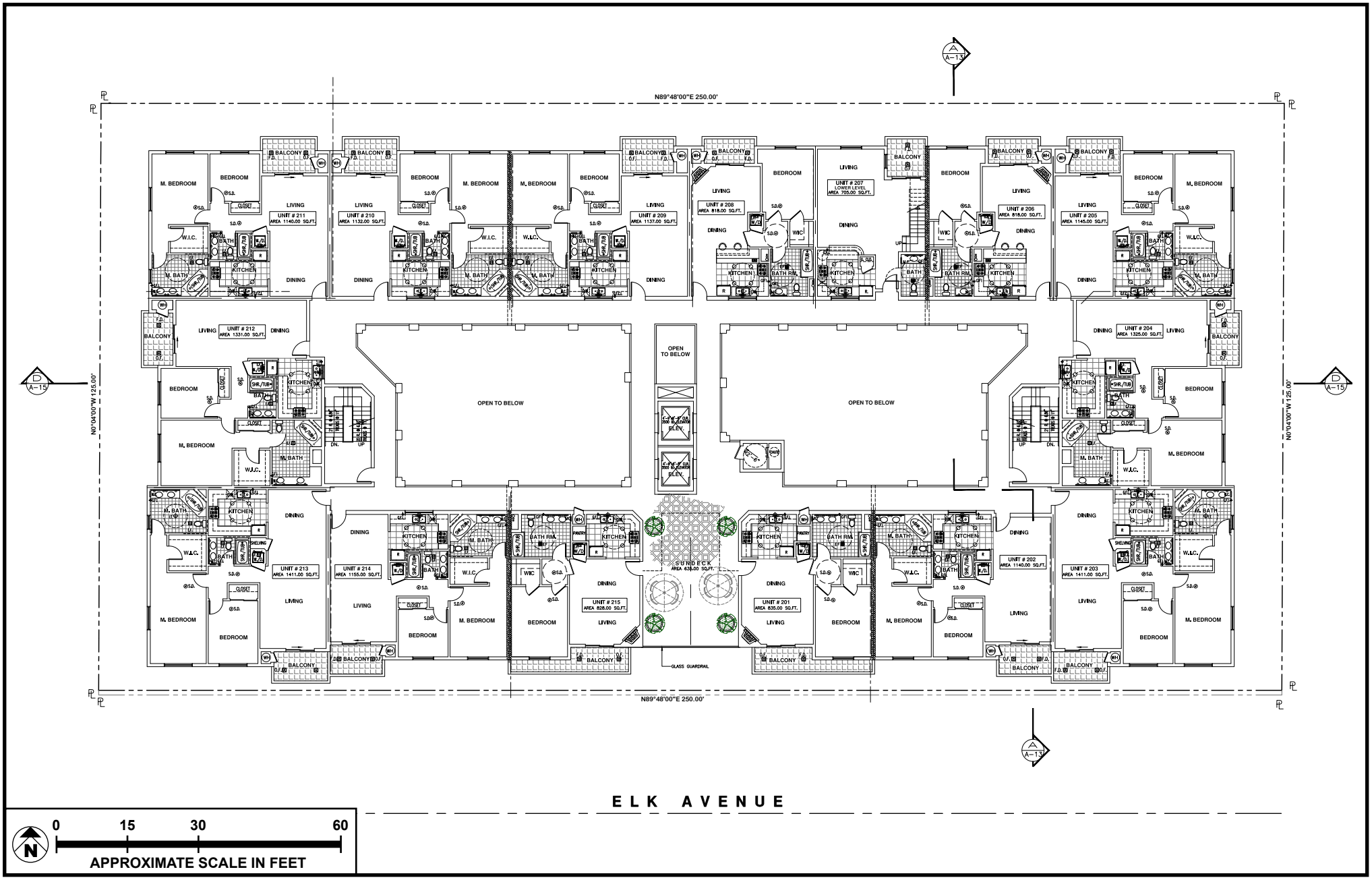
SOURCE: Landmark Design and Construction, LLC – July 2014

FIGURE **3.0-3**

Meridian Consultants

First Level Floor Plan

064-002-14



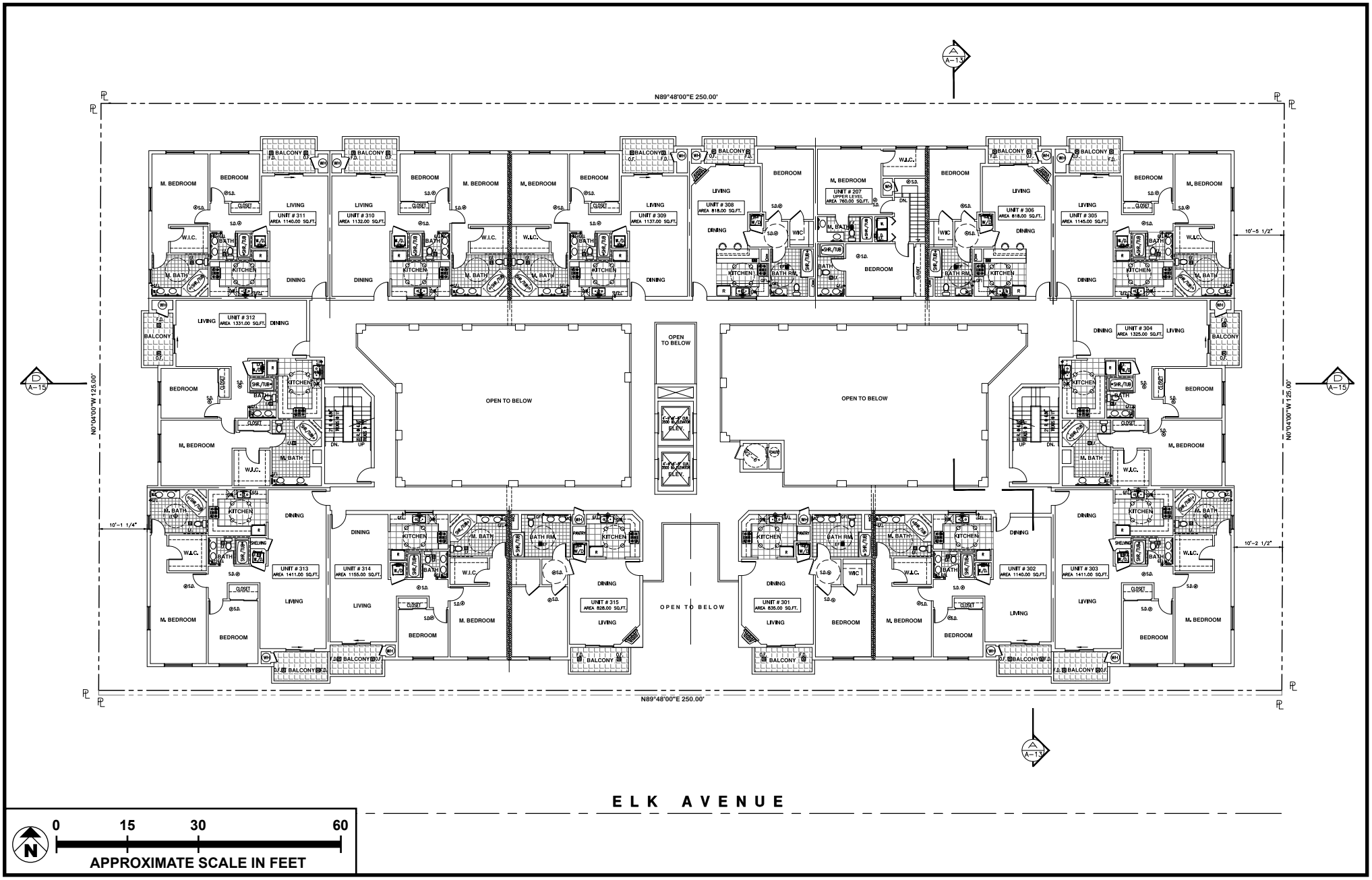
SOURCE: Landmark Design and Construction, LLC – July 2014

FIGURE **3.0-4**

Meridian Consultants

Second Level Floor Plan

064-002-14



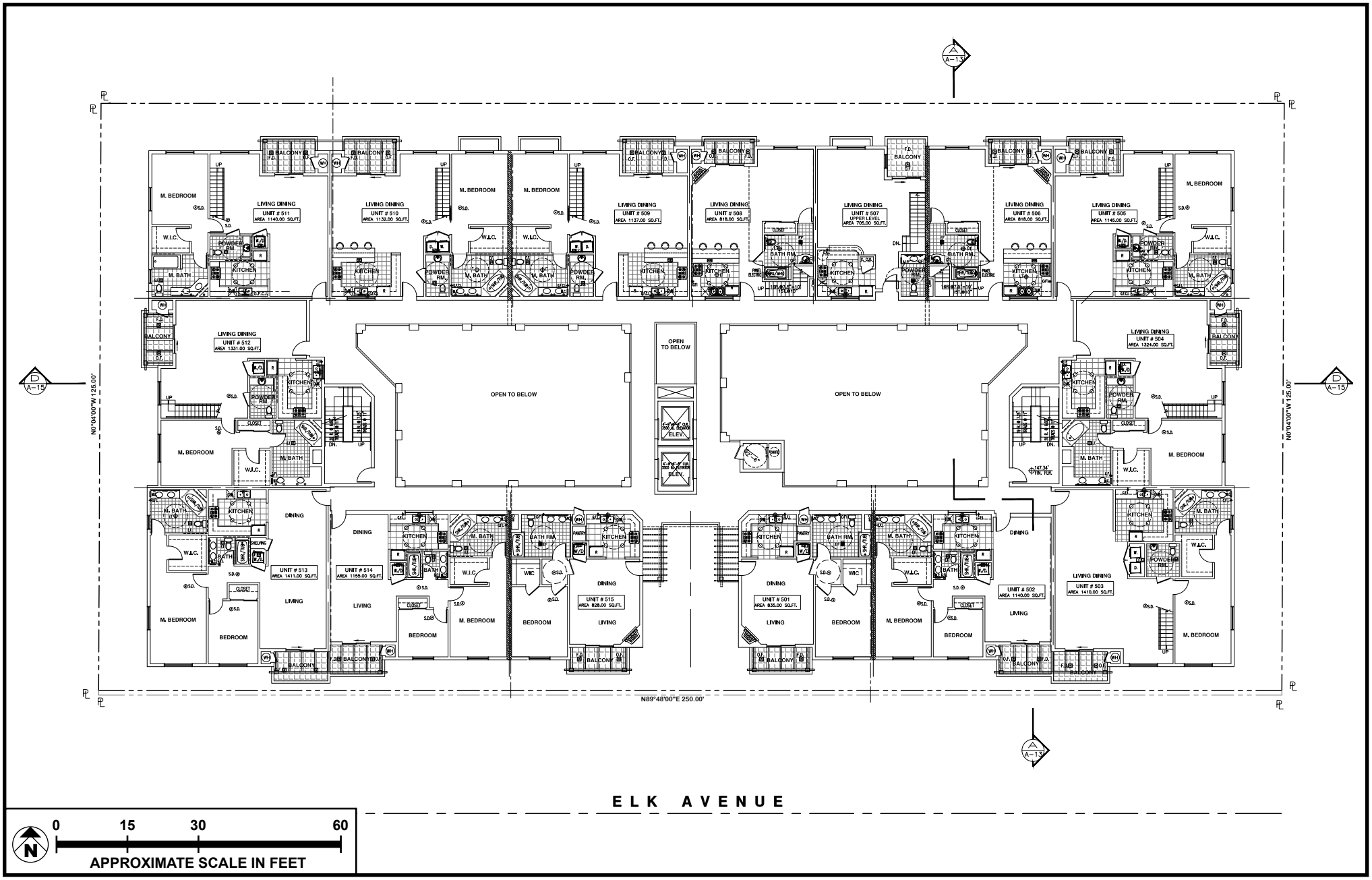
SOURCE: Landmark Design and Construction, LLC – July 2014

FIGURE **3.0-5**

Meridian Consultants

Third and Fourth Level Floor Plan

064-002-14



SOURCE: Landmark Design and Construction, LLC – July 2014

FIGURE **3.0-6**

Meridian Consultants

Fifth Level Floor Plan

064-002-14

The Project incorporates sustainable features to preserve energy while remaining consistent with the contemporary-style design. These features include shading devices where balconies are not practical, natural ventilation, and a roof design that shields sunlight from areas prone to absorbing heat. The proposed building would be designed to include green building measures as required by the California Green Building Standards Code.

Landscaping

Development standards for the SFMU zone require 140 square feet of open space per residential unit, and a minimum of 10 percent of the lot area must be landscaped. **Figure 3.0-9, Overall Landscape Plan**, illustrates the conceptual landscape plan and displays the amenities of the Project on the ground level. The Project would designate 6,138 square feet of common open space that includes the swimming pool, common areas, and a landscaped sundeck. The swimming pool area on the ground floor and the sundeck on the second floor would include furnishing, benches, and/or other seating. An approximately 761 square-foot recreation room would also be provided. The patios and balconies will provide a total of 6,035 square feet of private open space. The Project site is designed to include approximately 4,954 square feet of landscaped area. A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be planted along the perimeter of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development.

In general, the landscaping materials selected would create a distinct character for the Project site by resulting in a visual cohesiveness throughout the streetscape, internal open spaces, and the courtyards. The landscaping plan includes water-wise landscaping and irrigation design. Where feasible, the Project would include the use of local and sustainable materials.

Parking and Alternative Transportation

The building includes a 2-level subterranean parking structure accommodating 161 parking spaces. Of the total amount of parking provided, a minimum of six spaces would be designated as handicap-accessible spaces.[3] Each level of the parking structure would provide pedestrian access to each corresponding floor of the building via two elevators and two staircases. The subterranean parking structure would be accessible from W. Elk Avenue. As proposed, this driveway would be approximately 22 feet in width and would be controlled by a stop sign.

Alternative transportation modes are available and in walking distance from in the Project site. The Los Angeles County Metropolitan Transportation Authority (MTA) and the City of Glendale presently operate bus routes along Colorado Street and Pacific Avenue, including bus lines 180, 181, 201, 603, and

3 Americans with Disabilities Act, “Accessible Parking,” http://adata.org/factsheet/parking.

780. All routes serving the Project connect to additional routes and stop at the Glendale Transportation Center (GTC), which provides access to the greater Los Angeles Metropolitan region via bus and commuter trains. The GTC also provides statewide access via Amtrak long-distance trains. The GTC is located approximately 1.25 miles south from the Project site and is accessible via San Fernando Road.

Utilities and Infrastructure

Water and Sewer Service

Utility service providers would include Glendale Water and Power for water service and the Glendale Public Works Department for sewer service. Lateral lines extending from the proposed buildings would connect to existing water and sewer lines. A 4-inch water line on W. Elk Avenue and an 8-inch sewer line are anticipated to serve the Project. No new water mains are anticipated to be required to serve the Project.

Electrical and Natural Gas

Glendale Water and Power and the Southern California Gas Company provide electricity and natural gas service near the Project site. Electricity and natural gas transmission infrastructure presently exists on and near the Project site.

Overhead utility lines cross the Project site from east to west. No modifications to utility lines would be required.

NORTH ELEVATION
when viewing north along W. Elk Avenue

0 15 30 60
APPROXIMATE SCALE IN FEET

SOURCE: Landmark Design and Construction, LLC – December 2013

FIGURE **3.0-7**

Meridian Consultants

North Elevation from W. Elk Avenue

064-002-14

0 15 30 60

APPROXIMATE SCALE IN FEET

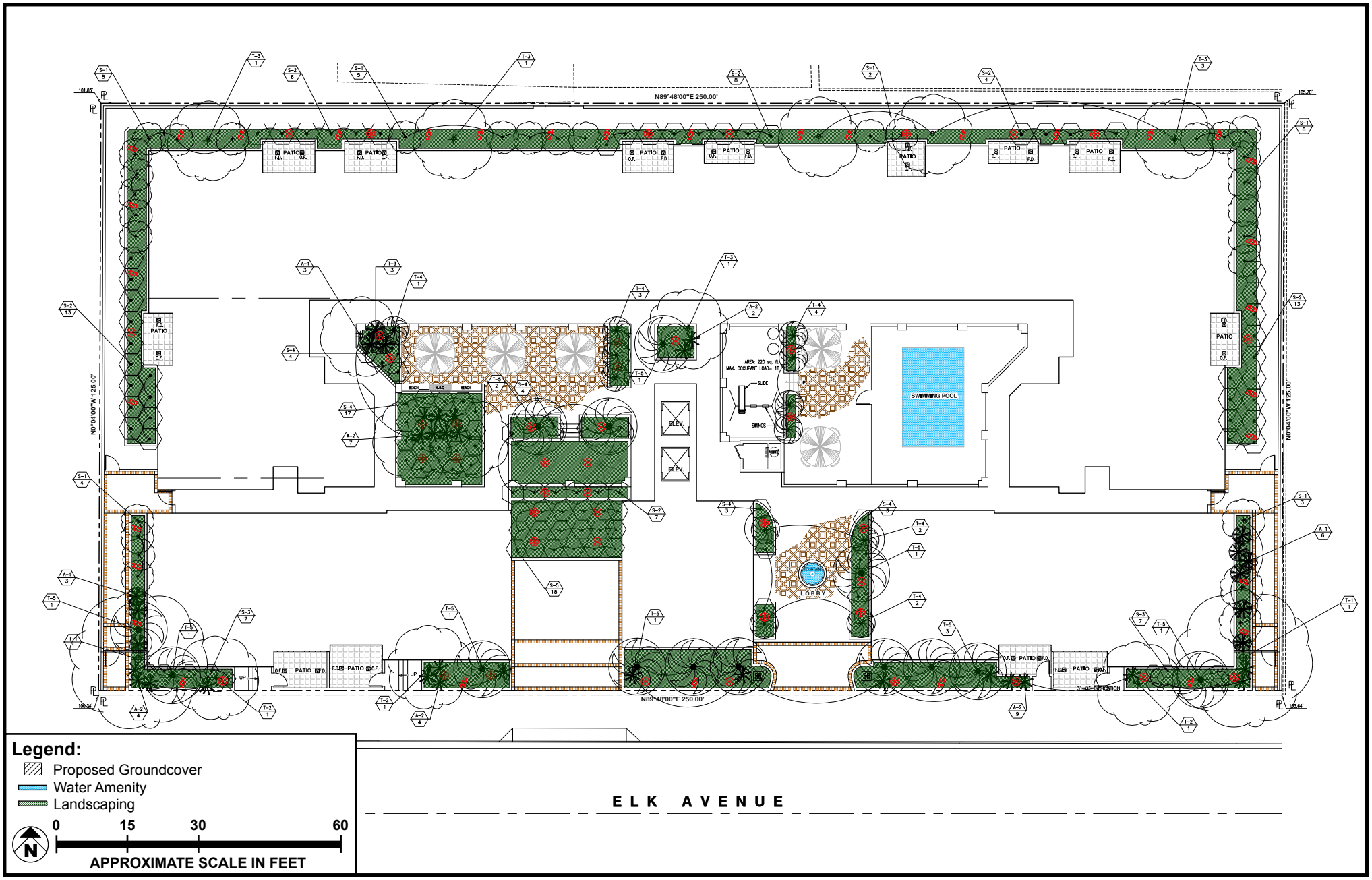
SOURCE: Landmark Design and Construction, LLC – December 2013

FIGURE **3.0-8**

Meridian Consultants

East and West Elevations

064-002-14



SOURCE: Landmark Design and Construction, LLC – July 2014

FIGURE **3.0-9**

Meridian Consultants

Overall Landscape Plan

064-002-14

PROJECT CONSTRUCTION

Project construction is anticipated to last approximately 18 months and is expected to commence in mid 2015. The Project would be constructed in three phases: (1) demolition, (2) site preparation/excavation, and (3) construction of the new building and site improvements.

Phase I: Demolition

This phase of construction would include the demolition and removal of the single-story wholesale auto parts business and the associated surface parking lot. Demolition would occur over a 1-month period, and approximately 19,250 cubic yards of demolition material would be generated. This material would be hauled north on Central Avenue to SR-134 or east along W. Elk Avenue, to S. Pacific Avenue, and then west along W. Colorado Street to I-5 and would be disposed of at a certified mixed debris recycling facility in Sun Valley, the City of Los Angeles, or a nearby community.

Phase II: Site Preparation and Grading

The site preparation/grading phase would include the removal of existing fill materials over a 4- to 6-month period. Grading on the Project site would require excavation up to depths of 30 feet below the ground surface; it is anticipated that 28,500 cubic yards of earth material would be removed from the site. Material would be hauled via the same route to the same location as demolition debris. Heavy construction equipment would be located on site during site preparation/grading activities and would not travel to and from the Project site on a daily basis.

Phase III: Construction of New Building & Site Improvements

The third phase would include construction of the subterranean parking and above-grade building and all related improvements. It is anticipated that equipment needs associated with above- and below-grade construction activities would include cranes and miscellaneous machinery and related equipment. The use of material delivery trucks and other miscellaneous trucks are anticipated during this phase of construction, which is anticipated to be completed in approximately 11 months.

A truck haul route program would be implemented during all phases of construction to minimize conflicts between haul trucks traveling to and from the Project site and through traffic on roadways adjacent to the Project. The program would specify and delineate the approved haul routes. Trucks would access the Project via W. Elk Avenue and S. Pacific Avenue and would access I-5 via W. Colorado Street and SR-134 via Central Avenue.

Temporary street and sidewalk closures within and along the perimeter of the Project site may be required during building construction. To minimize potential conflicts between construction activity and

through traffic, a construction traffic control plan would be developed prior to construction of the Project. The traffic control plan would identify all traffic control measures, signs, and delineators required to be implemented by the construction contractor for the duration of construction activity.

INTENDED USES OF THE EIR

The *CEQA Guidelines* require an EIR to include a brief statement describing the intended uses of the EIR, including a list of agencies expected to use the EIR in their decision making and the list of the permits and other approvals required to implement the Project. The EIR serves as an advisory document and is intended to provide guidance regarding discretionary actions associated with the Project. This Project EIR analyzes the environmental impacts of the Project. The City of Glendale will consider the information in the EIR—including the public comments and staff response to those comments—during the public hearing process. The final decision is made by the City Council, who may approve, conditionally approve, or deny the Project. No aspect of the proposed Project would be approved until after the Final EIR is certified.

This Draft EIR is circulated to responsible agencies, trustee agencies with resources affected by the Project, and interested agencies and individuals. The purposes of a public and agency review of a Draft EIR include sharing expertise, disclosing agency analyses, checking for accuracy, detecting omissions, discovering public concerns, and soliciting comments on mitigation measures and alternatives capable of avoiding or reducing the significant effects of the Project while still attaining most of the basic objectives of the Project.

Discretionary Actions

A series of approvals from the City of Glendale and other agencies would be necessary to implement the Project. Discretionary approvals may include, but are not limited to, the actions/permits described as follows.

Stage I/II Design Review

The City of Glendale Community Development Department has a multi-stage design review process for proposed projects. The Stage I/II Design will be considered for approval after completion of the environmental analysis. The design of the Project would be subject to the *City of Glendale Comprehensive Design Guidelines* and to review and comment by the City's Principal Urban Planner. The City Council will have the ultimate approval authority over the Project's design.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

The purpose of this section is to inform decision makers and the public of the type and magnitude of the change to the existing environment that would result from the Project, plus proposed and approved cumulative development in the City of Glendale. This section provides a detailed discussion of the environmental setting for each topic addressed in this environmental impact report (EIR), the analysis of the potential impacts of the Project, potential cumulative impacts, and other measures identified to mitigate these impacts.

CUMULATIVE IMPACT ANALYSIS

The technical analysis contained in **Section 4.0, Environmental Impact Analysis,** examines both Project-specific impacts and the potential environmental effects associated with cumulative development. The California Environmental Quality Act (CEQA) requires that EIRs discuss cumulative impacts, in addition to Project-specific impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the Project alone. According to Section 15355 of the CEQA Guidelines:

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

More specifically, Section 15130(a) of the CEQA Guidelines requires that EIRs discuss the cumulative impacts of a project when the project's incremental effect is "cumulatively considerable."[1] Where a Lead Agency is examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant but must briefly describe the basis for its conclusion. Section 15130(a)(l) of the CEQA Guidelines further states, "a cumulative impact consists of an impact which is

1 Under Section 15065(a)(3) of the State CEQA Guidelines, "cumulatively considerable" means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts."

If the combined cumulative impact associated with the Project's incremental effect and the effects of other projects is not significant, Section 15130(a)(2) of the CEQA Guidelines requires a brief discussion in the EIR of why the cumulative impact is not significant and why it is not discussed in further detail. Section 15130(a)(3) of the CEQA Guidelines requires supporting analysis in the EIR if a determination is made that a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable and, therefore, is not significant.

Moreover, the fact that a cumulative impact is significant does not necessarily mean that the project contribution to the cumulative impact is significant as well. Instead, under CEQA, a project-related contribution to a significant cumulative impact is only significant if the contribution is "cumulatively considerable."

Section 15130(b) of the CEQA Guidelines recognizes that the analysis of cumulative impacts need not be as detailed as the analysis of project-related impacts, but instead should "be guided by the standards of practicality and reasonableness." Pursuant to this section, the following two elements should be considered as necessary to provide an adequate discussion of cumulative impacts: "(a) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the Agency, or (b) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or areawide conditions."

The discussion of cumulative impacts in this Draft EIR focuses on whether the impacts of the project are cumulatively considerable and incorporates a combination of these two elements described in CEQA Section 15130(b), depending on the specific environmental issue area being analyzed. To support each significance conclusion, the Draft EIR provides a cumulative impact analysis. Where project-specific impacts have been identified that together with the effects of other related projects could result in cumulative significant impacts, these potential impacts are documented.

Related projects within the City are presented in **Table 4.0-1, List of Related Projects,** and includes those projects that are (1) completed but not fully occupied; (2) currently under construction or beginning construction; (3) proposed with applications on file at the City of Glendale or the City of Los Angeles; or (4) reasonably foreseeable.

Specific past, present, and reasonably anticipated future projects, as well as applicable Glendale land use planning documents, are considered when evaluating cumulative impacts in **Sections 4.1** through **4.9** of this EIR, as appropriate for each environmental topic addressed in this EIR.

Table 4.0-1
List of Related Projects

Project Name	Location	Land Use	Size	Unit	Status
Nexus at Central	610 N. Central Ave.	Multifamily	235	du	Under Construction
Citi Bank Site	210 W. Lexington and 418 N. Central Ave.	Live/Work	26	du	Proposed
		Multifamily	464	du	
Legendary Tower	300 N. Central Ave.	Multifamily	72	du	Under Construction
		Live/Work	8	du	
		Commercial	1,240	sq. ft.	
	301 N. Central Ave.	Multifamily	84	du	Approved
		Commercial	4,397	sq. ft.	
Brand + Wilson	124 W. Wilson Ave.	Multifamily	235	du	Under Construction
		Commercial	9,800	sq. ft.	
The Lex on Orange	320-324 N. Central Ave.; 208 W. Lexington Dr.; and 317-345 N. Orange St.	Multifamily	307	du	Completed
		Live/Work	3	du	
North Central Avenue Apartments	607 – 633 N. Central Ave; and 540 N. Central Ave.	Multifamily	507	du	Under Construction
	463 Salem St.	Multifamily	10	du	Approved
	518 Glenwood Rd.	Multifamily	6	du	Approved
Orange + Wilson	200 W. Wilson Ave.	Multifamily	166	du	Under Constructio n
		Live/Work	5	du	
		Restaurant	2,649	sq. ft.	
Central + Wilson	130 N. Central Ave.	Multifamily	153	du	Approved
		Commercial (Option A)	4,900	sq. ft.	
		Live/Work (Option B)	5	du	

Project Name	Location	Land Use	Size	Unit	Status
	125 N. Central Ave.	Multifamily	164	du	Approved
		Commercial Pharmacy (CVS)	15,100	sq. ft.	
Hampton Inn & Suites	315 S. Brand Blvd.	Hotel	94	rooms	Approved
Veterans Village of Glendale	327 Salem St.	Multifamily	44	du	Under Construction
	604-610 W. Broadway	Office	12,802	sq. ft.	Approved
		Commercial	1,620	sq. ft.	
Louise Gardens	111 N. Louise St.	Multifamily	63	du	Approved
	118 S. Kenwood St.	Multifamily	35	du	Under Construction
Laemmle Cinema Lofts	111 E. Wilson Ave. and 215 N. Maryland Ave.	Multifamily	42	du	Approved
		Movie Theater	9,690	sq. ft.	
Glendale Triangle Project	3900 San Fernando Rd.	Multifamily Market Rate	265	du	Under Construction
		Multifamily Affordable	22	du	
		Commercial	37,000	sq. ft.	
The Link	3901-3915 San Fernando Rd.	Multifamily	142	du	Approved
		Commercial	11,600	sq. ft.	
		Studio	5,000	sq. ft.	
Hyatt Place Glendale	225 Wilson Ave.	Hotel	172	rooms	Approved
		Restaurant	1,950	sq. ft.	
	463 Salem St.	Multifamily	10	du	Proposed
	3013 Montrose Ave.	Church	9,500	sq. ft.	Under Construction
Gwynn Chevrolet	1400 S. Brand Blvd.	Addition to Car Dealership	2,423	sq. ft.	Under Construction
Star Ford Dealership	1101 S. Brand Blvd.	Car Dealership	47,977	sq. ft.	Under Construction
Colorado Gardens	124 W. Colorado St.	Multifamily	50	du	Approved
	527 Hazel St.	Multifamily	4	du	Proposed
CCTAN/Colorado Mixed Use Project	507-525 W. Colorado St.	Multifamily	90	du	Approved
		Medical Office	18,000	sq. ft.	

Project Name	Location	Land Use	Size	Unit	Status
		Commercial	1,000		
	344 W. Milford Street	Multifamily	4	du	Proposed
Public Storage	5500 San Fernando Road	Mini Storage Facility	180,000	sq. ft.	Under Construction
	430 Pioneer Dr.	Multifamily	5	du	Approved
	700 E. Garfield Ave.	Multifamily	5	du	Approved
	2625 Hermosa Ave.	Multifamily	3	du	Approved
Habitat for Humanity	806 Chestnut St.	Multifamily	3	du	Under Construction
	342-344 Myrtle St.	Multifamily	11	du	Approved
Tropico Apartments	435 W. Los Feliz Blvd.	Multifamily	238	du	Approved
	619 S. Pacific Ave.	Multifamily	27	du	Approved
Broadway Mixed Use Project	515 W. Broadway	Multifamily	176	du	Proposed
		Live/Work	4	du	
		Commercial	18,200	sq. ft.	
Orange/Milford Project	413 N. Brand Blvd.	Multifamily	228	du	Approved
		Commercial	5,000	sq. ft.	
	319 N. Central Ave. (312 Myrtle St.)	Multifamily	92	du	Approved
		Commercial	2,172	sq. ft.	
	1407 W. Glenoaks Blvd.	Multifamily	76	du	Proposed
		Commercial	12,900	sq. ft.	
	512 W. Doran St.	Multifamily	4	du	Proposed
	1017 San Rafael Ave.	Multifamily	5	du	Proposed
	440 Palm Dr.	Multifamily	4	du	Approved
	611 E. Acacia	Multifamily	14	du	Proposed
YMCA Meta Housing Project	127-129 N. Kenwood St.	Multifamily	70	du	Approved

Source: City of Glendale (July 2014)
Note: du = dwelling units; sq. ft. = square feet.

4.1 AESTHETICS

This section addresses the existing visual characteristics of the Project site and the surrounding area, and evaluates the significance of the changes in visual character that would result from development of the proposed Project as viewed from the surrounding streets and other public viewpoints. Also evaluated is the impact of light and glare. Information on existing visual resources is incorporated from the City of Glendale Open Space and Conservation Element and from field observations.

ENVIRONMENTAL SETTING

Existing Conditions

A description of the existing visual characteristics of the Project site and the surrounding area is presented in the following paragraphs.

Scenic Vistas

The City of Glendale is bordered on the north by the San Gabriel Mountains, on the northwest by the Verdugo Mountains, and on the east by the San Rafael Hills. The easternmost edge of the Santa Monica Mountains, in Los Angeles's Griffith Park, lies just beyond the City boundary to the southwest. The Repetto Hills are located at the southeast edge of the City.[1] According to the Open Space and Conservation Element, the Verdugo Mountains and the San Rafael Hills are the most significant physical landmarks in the community because these topographic features flank the central portion of the City.[2] The Open Space and Conservation Element further identifies visual and scenic resources as aesthetic functions that contain natural beauty, such as lush or colorful vegetation, prominent topographical stature, unique physical features, and an interesting visual effect.[3] The Verdugo Mountains, San Gabriel Mountains, Santa Monica Mountains, and San Rafael Hills are generally visible from the portion of western Glendale where the Project site is located.

The Verdugo Mountains, located approximately 5 miles north of the Project site, are approximately 2,100 feet above the Project site and 2,600 feet above mean sea level. The Verdugo Mountains are visible from major north–south streets in the Project area. However, due to existing development, views of the Verdugo Mountains are limited from the Project site.

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1 City of Glendale, *General Plan,* "Open Space and Conservation Element" (1993), p. 3-2.
2 City of Glendale, *General Plan,* "Open Space and Conservation Element" (1993), p. 2-1.
3 City of Glendale, *General Plan,* "Open Space and Conservation Element" (1993), p. 4-37.

Views of the San Rafael Hills, located approximately 3 miles northeast of the Project site, are generally visible from major east–west streets in the area. The San Rafael Hills are approximately 400 feet above the Project site and 975 feet amsl. Due to existing development, views of the Verdugo Mountains are limited from the Project site.

Views of the Santa Monica Mountains, located approximately one mile west of the Project site, are generally visible from major east–west streets in the area. The Santa Monica Mountains are approximately 1,000 feet above the Project site and 1,500 feet above mean sea level. Partial views of the Santa Monica Mountains are visible from W. Elk Avenue.

Scenic Routes

There are no designated scenic highways in the City of Glendale. The Open Space and Conservation Element of the General Plan identify several "urban hikeways" in an effort to provide opportunities for citizens and visitors to discover Glendale's unique urban form. Three self-guided routes cross through downtown Glendale, highlighting the Financial/Fremont Park District, the Brand Shopping District, and the Civic Center District. The Project site is not located along these routes.

Light and Glare

Perceived glare is the unwanted and potentially objectionable sensation experienced from looking directly into a light source (e.g., the sun, its reflection, automobile headlights, or other light fixtures or sources). Reflective surfaces on existing buildings, car windshields, and so forth also can expose people and property to varying levels of glare.

A significant light impact would typically occur if a proposed project would cause (1) a substantial increase in ambient illumination levels beyond the property line and (2) visible glare from either fixtures or illuminated surfaces.

Glare generation within the Project vicinity is limited. The existing wholesale auto parts business and surface parking lot on the Project site create a low to moderate potential for glare from vehicle windows and surfaces during the daytime hours. The surrounding development consists predominately of buildings that generally lack large expanses of glass or other reflective materials.

The site and surrounding area currently have ambient nighttime light levels that are average for an urbanized area. Residential uses adjacent to the Project site use typical levels of interior and exterior lighting for security, parking, signage, architectural highlighting, and landscaping. Likewise, the streets in the area also utilize nighttime lighting for visibility and safety. Artificial light sources found on the site and in the surrounding area include security lights associated with parking lots, illuminated signs,

streetlights, traffic lights along the major and secondary surface streets, automobile headlights, and associated locomotive lights.

Shade and Shadow

Shadow-sensitive receptors typically include residences (particularly yards), recreational facilities and parks, schools, and/or outdoor seating areas. A shadow is dependent on the height, size, and shape of the building from which shadow is cast and the angle of the sun. The angle of the sun varies with respect to the rotation of the earth and the earth's elliptical orbit. The longest shadows are cast during winter months and the shortest shadows are cast during the summer months. The shortest day of the year (i.e., the shortest day of the year and the longest night) is the winter solstice, which occurs in late December.

The closest shadow-sensitive uses located within the vicinity of the Project site are the multifamily residential units located to the east, west, and south, and the single-family residential units located to the southeast.

Existing Visual Character

The Project site is visible from surrounding public streets including W. Elk Avenue, S. Pacific Avenue, and W. Colorado Street. Although the Project site is visible from the surrounding multistory ICIS building, commercial and office building, and potentially from the second floors of the multifamily residential buildings located on the east side of the Project site, and the single family residences located to the south, these views are not public views.

For the purposes of this analysis, views of the Project are considered to be short-range views that span from immediately adjacent to one-quarter mile away from the site. The following describes views of the Project site from a variety of perspectives.

Surrounding Off-Site Views

Land uses surrounding the Project site include auto repair and medical office buildings to the north; a two-story multifamily building to the east; single- and multifamily residences to the south, and the ICIS apartment complex to the west. Buildings within this area range from 1 to 5 stories in height.

Figure 4.1-1, Photo Location Key, provides the location of each photograph. **Figures 4.1-2** through **4.1-8**, provide views of existing on-site and off-site views.

Figure 4.1-2, Existing Off-Site View 1, provides a view from the southern frontage of W. Elk Avenue looking north towards the Project site. As shown, views include the existing wholesale auto parts business, parking lot, and W. Elk Avenue. Midrange views include the multifamily residences, street

lights, power lines, and commercial buildings at a distance. Limited views of the Verdugo Mountains can be seen in the background; however, these views are obstructed by the existing development located along W. Elk Avenue and W. Colorado Street.

Figure 4.1-3, Existing Off-Site View 2, provides a view from the southeast corner of W. Elk Avenue and S. Pacific Avenue looking northwest towards the Project site. As shown, short-range views include street lights, landscaping, and W. Elk Avenue. Midrange views include the existing wholesale auto parts building on the Project site and the two-story apartment building on the east side of the Project site. Long distance views include the five-story ICIS apartment complex that is located on the west of the Project site. Limited views of the Santa Monica Mountains are visible in the background; however, these views are largely obstructed by trees and the ICIS apartment complex.

Figure 4.1-4, Existing Off-Site View 3, provides a view from west of the Project site on W. Elk Avenue facing east. As shown, views include the existing wholesale auto parts structure on the Project site, W. Elk Avenue, and multifamily residences that are partially obscured by street trees. Single- and multifamily residences extend along W. Elk Avenue into the distance. Views of the San Rafael Hills are obstructed by existing development and landscape.

Figure 4.1-5, Existing Off-Site View 4, provides a view from W. Colorado Street looking southwest toward the Project site. Short range views include a surface parking lot and various single-story commercial buildings. The existing structure on the Project site can be seen in the midground, along with telephone lines, and treetops. A small portion of the Santa Monica Mountains can be seen beyond the Project site; however, the view towards the mountains is generally obstructed by existing development.

Figure 4.1-6, Existing Off-Site View 5, provides a view from W. Colorado Street looking directly south toward the Project site. Short range views are characterized by a surface parking lot, commercial structures, and limited landscaping. The Project site can be seen at a distance. There are no views of scenic vistas facing south from W. Colorado Street.

Figure 4.1-7, Existing Off-Site View 6, provides a view from S. Pacific Avenue looking west towards the Project site. A surface parking lot, two-story multifamily residences, and the Project site can be seen at a distance. A portion of the Santa Monica Mountains can be seen at a distance; however, this view is obstructed by the five-story ICIS apartment complex, as well as by street trees.

Figure 4.1-8, Existing Off-Site View 7, provides a view from outside the Project site looking west. West Elk Avenue is visible throughout this viewpoint. Street trees and landscaping are visible along the frontage of W. Elk Avenue. From this vantage point, the Santa Monica Mountains are completely obscured by the ICIS apartment complex and street trees.

SOURCE: Google Earth – 2014; Meridian Consultants, LLC – August 2014.

FIGURE **4.1-1**

Meridian Consultants

Photo Location Key

064-002-14

Southern frontage of W. Elk Avenue looking north

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-2**

Meridian Consultants

Existing Off-Site View 1

064-002-14

Southeast corner of W. Elk Avenue and S. Pacific Avenue looking northwest

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-3**

Meridian Consultants

Existing Off-Site View 2

064-002-14

Outside Project site on W. Elk looking east

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-4**

Meridian Consultants

Existing Off-Site View 3

064-002-14

W. Colorado Street looking southwest

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-5**

Meridian Consultants

Existing Off-Site View 4

064-002-14

W. Colorado Street looking south

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-6**

Meridian Consultants

Existing Off-Site View 5

064-002-14

S. Pacific Avenue looking west

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-7**

Meridian Consultants

Existing Off-Site View 6

064-002-14

Outside the Project site on W. Elk Avenue looking west

SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.1-8**

Meridian Consultants

Existing Off-Site View 7

064-002-14

Regulatory Setting

California Department of Transportation

California's Scenic Highway Program is administered by the California Department of Transportation (Caltrans) to preserve and protect scenic highway corridors from changes that would diminish views of the natural landscape. A scenic corridor is typically identified using a motorist's line of vision within a reasonable boundary. There are no designated State Scenic Highways within the City of Glendale.

City of Glendale

The City's *Urban Design Guidelines* address the aesthetic character of development in the City of Glendale and the San Fernando Road Corridor Redevelopment Project Area. These *Urban Design Guidelines* address the characteristics of open space and street spaces, ground-floor uses and building design in relation to pedestrian movement, building height, and bulk, along with other design characteristics. The Community Development Department reviews projects for consistency with these guidelines through the City's Design Review process.

The *Urban Design Guidelines* provide qualitative criteria to communicate the design goals and guidelines for Glendale's open space system, building design, and transitions between commercial and residential areas. These standards address issues such as building heights and floor area ratios, building massing and scale, transitional massing, setback, frontage, and open space. As discussed in **Section 4.3, Land Use and Planning**, the proposed Project does not conflict with any applicable plans, policies, and ordinances related to design and aesthetics.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on aesthetic resources, if, per Appendix G (Environmental Checklist) of the State CEQA Guidelines, it would:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway (issue is addressed in **Section 6.0, Effects Not Found to be Significant**)
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

The creation of shade and shadow may also impact the environment. For the purposes of this analysis, the City of Glendale considers new shade and shadow patterns to be significant based on the threshold in use by the City in other environmental impact reports (EIRs) prepared and certified by the City:

- Shade currently unshaded uses located off the site that are sensitive to shadow, such as residences, school playgrounds, parks, etc., for more than 2 continuous hours between 9:00 AM and 3:00 PM during the winter, or 9:00 AM and 5:00 PM during the summer.

Methodology

Each applicable threshold of significance is listed below, followed by an analysis of the significance of potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Project Impacts

Threshold: Have a substantial adverse effect on a scenic vista

The Project site is located in a highly developed urban area. As indicated in the Glendale Open Space and Conservation Element, the primary scenic vistas throughout Glendale are the Verdugo Mountains and the San Rafael Hills. From the Project area, existing scenic vistas from the Project site are limited to the long-range views of the Verdugo Mountains to the north and the Santa Monica Mountains to the west. According to the Open Space and Conservation Element of the Glendale General Plan, the Santa Monica Mountains are not considered a valued visual resource because they do not contain lush or colorful vegetation, distinctive relief features, or an interesting visual effect compared with more prominent mountain ranges in the area (i.e., Verdugo Mountains, San Rafael Hills). As shown in **Figures 4.1-2** to **4.1-7**, given the highly developed nature of the area, long-distance views of these mountains are mostly limited because existing buildings block or obstruct the views from other locations on and around the site.

Existing views across the site would be modified with Project development. Development of the Project would provide views of surrounding scenic vistas from the upper floors. The mass of the proposed structures would potentially impact views across the Project site toward the Verdugo Mountains to the north and the Santa Monica Mountains to the west. However, as discussed previously, existing views across the site towards the Verdugo Mountains are currently obstructed. While portions of the San Rafael Hills are generally visible from this portion of the City, views of the mountains from the Project site are also obstructed by existing development and vegetation.

Some private views may be affected by the site development. In particular, the ICIS apartment complex located to the west of the Project site would experience an altered view based on the orientation of their apartment and window placement. These views presently include the existing development at the Project site, the single- and multifamily residences along W. Elk Avenue, and currently obscured views of the Verdugo Mountains and San Rafael Hills. Under CEQA, an impact on views is considered significant if a view of a public scenic vista or a public object of visual significance is substantially impeded or obstructed from a public vantage point. As discussed previously, the Project would not intrude into views of the mountains from the public right of way.

Additionally, the maximum height of the structures associated with the Project would be approximately 73 feet above adjacent grade, which is within the maximum height of 75 feet permitted in the SFMU zone. The height of the proposed structures would not significantly obstruct views across the Project site as existing views of the Verdugo and San Rafael Mountains are already obstructed. As a result, development of the Project, as proposed, would not worsen the availability of on-site views toward the Verdugo and Santa Monica Mountains or the San Rafael Hills.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Threshold: **Substantially degrade the existing visual character or quality of the site and its surroundings.**

Visual character is typically influenced by various landscape attributes including but not limited to color contrasts, repetition of geometric forms, diversity of textures, and landform prominence. The Project site is characterized by a single-story wholesale auto parts building with an adjacent surface parking lot. The nearest sensitive uses to the Project site are the five-story ICIS multifamily residential building located to the west, the two-story multifamily residence to the east, and single- and multifamily buildings to the south. Auto repair and medical offices characterize the area to the north.

The Project site is located in the western portion of the City of Glendale within the San Fernando Road Corridor Redevelopment Project Area. A main objective of the Mixed Use development land use designation allow for a compatible mix of commercial, industrial, and residential land uses, or just (stand alone) commercial, industrial, or residential land uses in various combinations, depending on the specific

zoning district designation.[4] The proposed Project's use and design would be compatible with the goals in the San Fernando Road Corridor Redevelopment Project Area and the Commercial/Residential Mixed Use zone. The City has a multi stage design review process for the proposed Project. The Project will be required to undergo a joint Stage I/II City design review to ensure conformance.

The Project site does not contain any scenic resources or landmark features. The Project would not obstruct any prominent unique public view or result in the creation of an aesthetically offensive site. The visual character of the surrounding area is typical of an urbanized development. Once constructed, the Project would add to the diverse urban style along W. Elk Avenue and would maintain the intent and character of the San Fernando Road Corridor Redevelopment Project Area and the SFMU zone.

Development of the Project would alter the existing visual characteristics of the site and its vicinity by adding new visual elements to the Project site. The Project consists of a five-story building including multifamily residential units, an indoor recreation room, an outdoor common area, and a variety of landscaping. In general, the Project elements to be introduced would improve the aesthetic character of the site given the architectural design of the Project; the use of design elements, such as landscaped view corridors, and walkways; and the comprehensive landscape plan to be implemented. Although the proposed building would be of a greater height than the surrounding auto repair and medical office uses to the north, and the single- and multifamily uses to the east and the south; the Project is smaller in mass and height when compared to the existing five-story, ICIS apartment complex adjacent to the west of the site. The architectural design would generally result in a visually compatible structure when compared to the surrounding structures while improving site conditions. Furthermore, the Project would provide canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) along W. Elk Avenue, thus improving the visual character of the Project site.

See **Section 3.0, Project Description**, **Figure 3.0-7, North Elevation from W. Elk Avenue** and **3.0-8, East and West Elevations**, which illustrate the general massing of the proposed structure and level of detail along W. Elk Avenue. As shown in **Figures 3.0-7** and **3.0-8**, the Project would be designed as a contemporary structure utilizing various building materials in conformance with the city's Comprehensive Design Guidelines. In addition, these elevations illustrate the primary building materials proposed for the exterior building, including stucco, concrete and metal. The Project would be developed with a building at a height of five stories plus a mezzanine level (73 feet) and a floor to area ratio (FAR) of 3.2.

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4 City of Glendale, *General Plan* "Land Use Element," General Plan Amendment No. 2006-05, Exhibit D (2006).

The Project would improve the aesthetic character of the site, given the architectural design of the Project and the use of design elements, such as the comprehensive landscape plan to be implemented along the view corridors, and the structural setback from neighboring properties. The Project would designate 6,138 square feet of common open space that includes the lobby, swimming pool, common areas, and a landscaped sundeck. The swimming pool area on the ground floor and the sundeck on the second floor would include furnishing, benches, and/or other seating. An approximately 761 square-foot recreation room would also be provided. The patios and balconies will provide a total of 6,035 square feet of private open space.

The landscaping plan includes drought-tolerant trees, shrubbery, flowers, and ground cover. When and where feasible, the Project would also include the use of local and sustainable materials. The Project site is designed to include approximately 4,954 square feet of landscaped area. A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be planted along the perimeter of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development.

All supporting infrastructure, such as telecommunications equipment and utility lines, would be placed underground or screened from public view. While the proposed buildings will be taller than the existing buildings currently located at the site, the architectural design will result in the massing of the buildings being visually compatible and actually improving site conditions. Finally, any form of signage associated with the Project would meet the standards and programs contained in the Glendale Municipal Code, and no adverse impact is expected to result.

Given the existing urban aesthetic context and objectives of the Redevelopment Plan for the San Fernando Road Corridor, development of the Project would not substantially degrade the existing visual character or quality of the Project site and its surroundings, and no significant impact to the visual character of the site and the surrounding area would result. Development of the Project, as proposed, would improve the visual character of the site and the surrounding areas of W. Elk Avenue, and the change in visual character of the site would not degrade the existing visual character or quality of the site and its surroundings.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

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

Substantial light or glare can result from the installation of high-intensity lighting fixtures or the use of highly reflective glass or other building materials. Headlights from vehicles can also create light or glare if sensitive uses are affected.

Lighting would be established on the site during construction. Lighting used during construction would consist primarily of security lights, although lighting may be used for construction activities occurring during morning or evening hours, particularly in the winter. This lighting would be temporary in nature and would not result in any substantial long-term light or glare impacts.

The proposed structure would consist of light-and cool-colored exterior wall materials balanced with low-reflective glass materials. Primary building materials proposed for the exterior of the building include stucco, concrete, exterior metal, and glass. As illustrated in **Section 3.0, Project Description, Figure 3.0-9**, **Overall Landscape Plan,** the proposed landscaping would consist of street trees, ground cover, and shrubs to enhance the pedestrian environment. Highly polished materials or highly reflective metal material and glass that could reflect light and create glare are not proposed. No substantial glare impacts from building materials would result from the proposed Project.

Development of the proposed Project would establish new permanent sources of lighting that would increase the current low-intensity level of light on the site. The lighting proposed would be limited to the amount required to safely light the driveway, the sidewalks along W. Elk Avenue, the open space and the courtyard areas within the Project site. All outdoor lighting would be directed onto the driveway, walkways, and public areas and away from adjacent properties and public rights-of-way to avoid any potential light or glare impacts. Therefore, the new on-site lighting would not result in substantial increases in light or glare that would affect any light-sensitive uses on or near the site, such as the residential units east, south, and west of the Project site.

The driveway entrance for the subterranean parking structure is located on W. Elk Avenue opposite single-and multifamily residential uses. The Project would be designed so that no substantial light or glare impacts from vehicles entering and exiting the parking garage would occur. Therefore, the Project would not result in substantial light or glare impacts.

Direct and indirect lighting would be used for signage to be placed on building frontages. Signage lighting would be focused onto sign surfaces and would generally be of low-to-medium brightness. All proposed signage and associated lighting would be subject to signage regulations and programs

included in the Glendale Municipal Code. Therefore, lighting associated with signs would not result in substantial light or glare impacts.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Threshold: **Shade currently unshaded uses located off the site that are sensitive to shadow, such as residences, school playgrounds, parks, etc., for more than 2 continuous hours between 9:00 AM and 3:00 PM during the winter, or 9:00 AM and 5:00 PM during the summer.**

The potential shade and shadow impacts of the proposed Project were analyzed by preparing a computer model of the proposed structures on the Project site and simulating the shadows that would be created by these new structures.

Simulations of the shadows that would be created by the proposed buildings were prepared for the summer and winter solstices, June 21 and December 21, from 8:00 AM to 5:00 PM. However, the following periods of time are used as the threshold by the City because they represent the portion of the day during which maximum seasonal shading would occur:

- Summer Solstice June 21 9:00 AM to 5:00 PM
- Winter Solstice December 21 9:00 AM to 3:00 PM

Figure 4.1-9, Summer Solstice 9 AM to 12 PM and **Figure 4.1-10, Summer Solstice 1 PM to 5 PM** present the illustrative graphic findings of shade and shadow patterns cast by the Project at 9:00 AM to 5:00 PM during the summer solstice. **Figure 4.1-11, Winter Solstice 9 AM to 12 PM** and **Figure 4.1-12, Winter Solstice 1 PM to 3 PM,** present the illustrative graphic findings of shade and shadow patterns cast by the Project at 9:00 AM to 3:00 PM during the winter solstice. The computer model used for the simulations illustrates that some shadows fall around the adjacent buildings to the northeast and northwest, given that they are shorter than the proposed Project and the Project would not shade open areas as shown in **Figures 4.1-9** through **4.1-12**.

Commercial land uses are located to the northeast and northwest of the site. The mixed use ICIS apartment complex is located west of the Project site. No shadow impacts would occur to the residential buildings south of W. Elk Avenue given the placement of the proposed Project relative to the sun's rising and setting patterns. The modeling demonstrates that any shadows cast on portions of the adjacent

sensitive properties during the primary summer and winter daytime periods would not extend beyond the 2-hour standard.

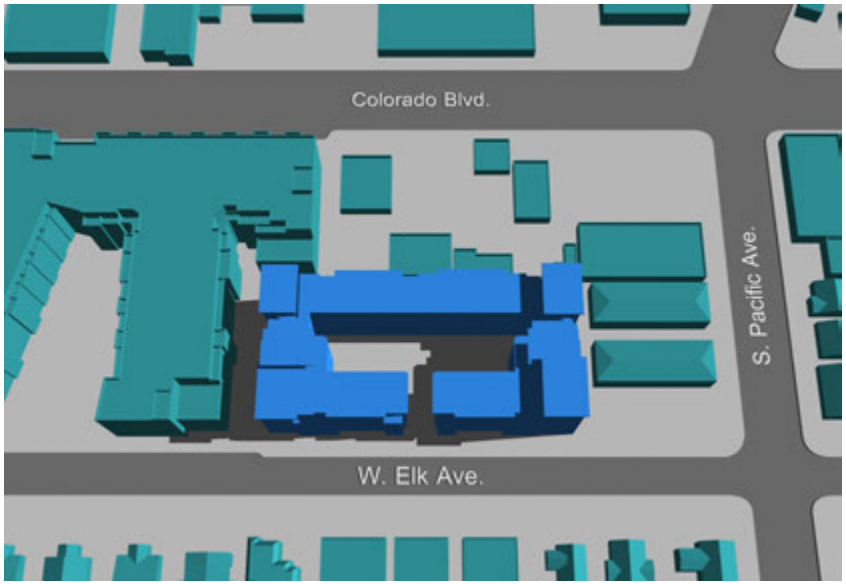
As discussed previously, residential uses adjacent to the east and west are the closest sensitive uses to the Project site. Shade impacts on these adjacent land uses would increase and/or decrease progressively as the Earth rotates; shadows cast on these sensitive land uses are anticipated to be their greatest during the winter solstice period from 9:00 AM to 11:00 AM and 1:00 PM to 3:00 PM (see **Figures 4.1-11** and **4.1-12**). A portion of the ICIS building to the west would be partially shaded generally from 9:00 AM to 10:00 AM in the summer and until 11:00 AM in the winter. A portion of the 2-story apartment building to the east would be partially shaded from 3:00 PM to 5:00 PM in the summer months, and from 1:00 PM to 3:00 PM in the winter months.

Shade cast on land uses that are not considered sensitive uses (i.e., commercial or office buildings, parking structures) are not a part of this analysis given that sunlight is not as important to the function of commercial and office uses. The shading of adjacent residential properties by the proposed buildings would only partially shade the properties and would occur for a short duration during the day. The impact of shade and shadows cast by the proposed Project on sensitive land uses is considered less than significant.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

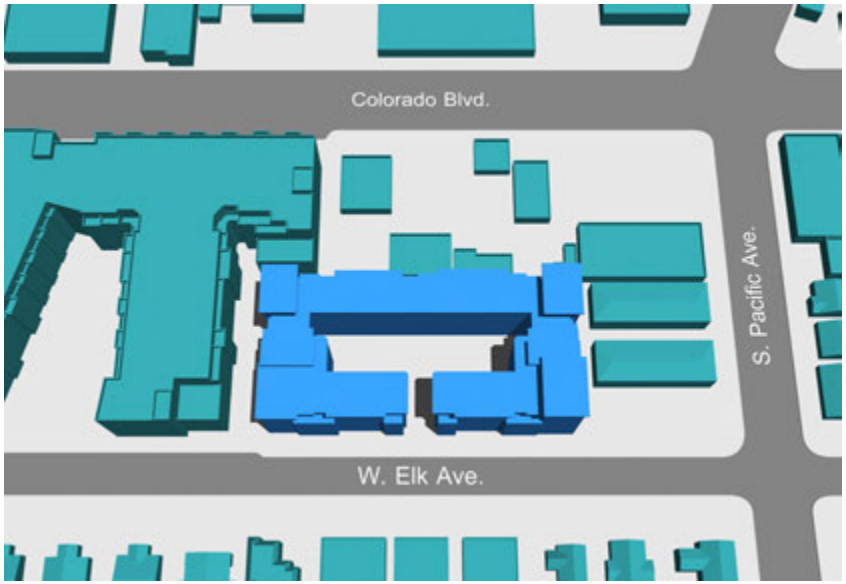
Level of Significance after Mitigation: Less than significant.



June 21st 9am

June 21st 10am

June 21st 11am



June 21st noon

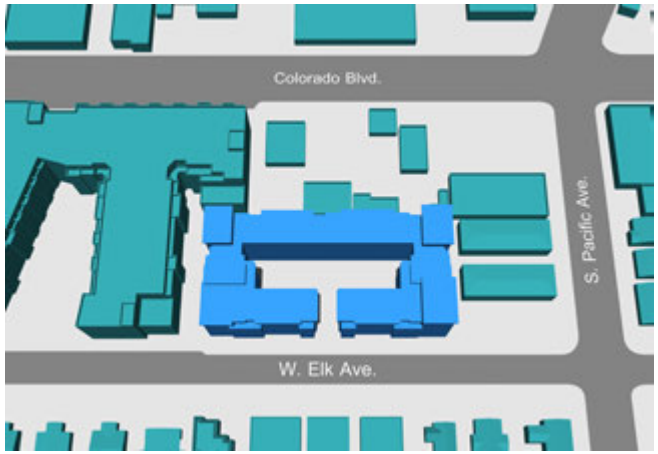
SOURCE: Paul Manzer Graphic Design – August 2014

FIGURE **4.1-9**

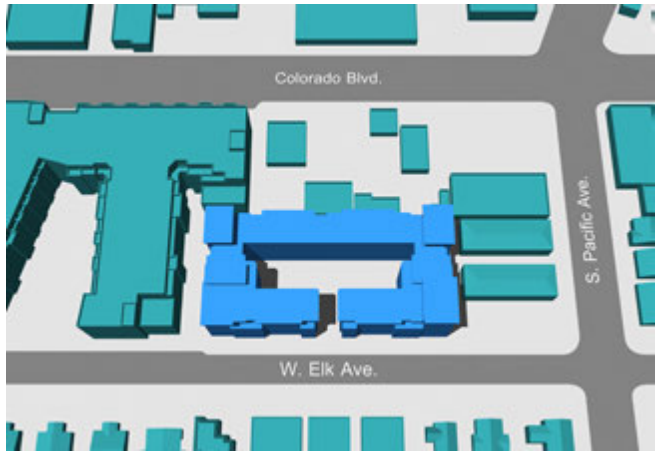
Meridian Consultants

Summer Solstice 9 AM to 12 PM

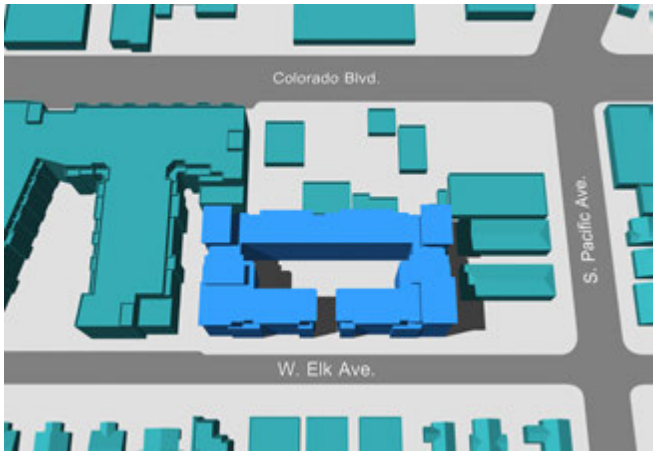
064-002-14



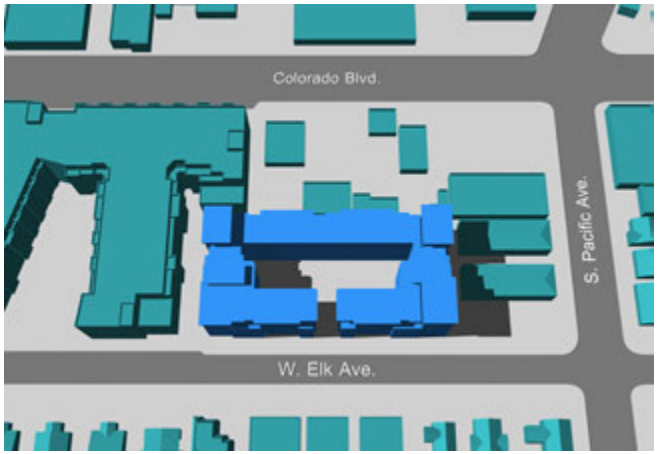
June 21st 1pm



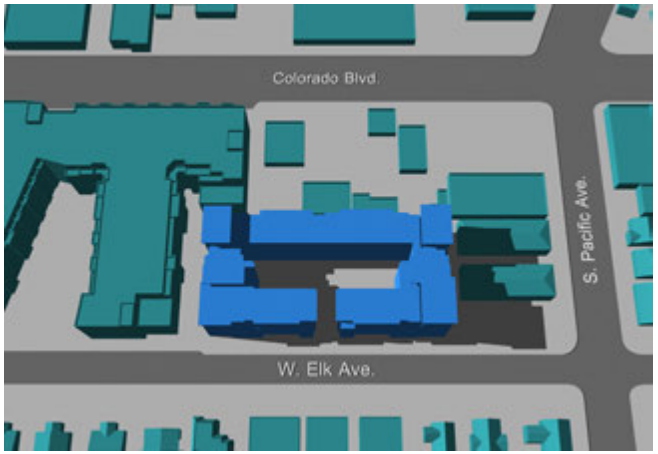
June 21st 2pm



June 21st 3pm



June 21st 4pm



June 21st 5pm

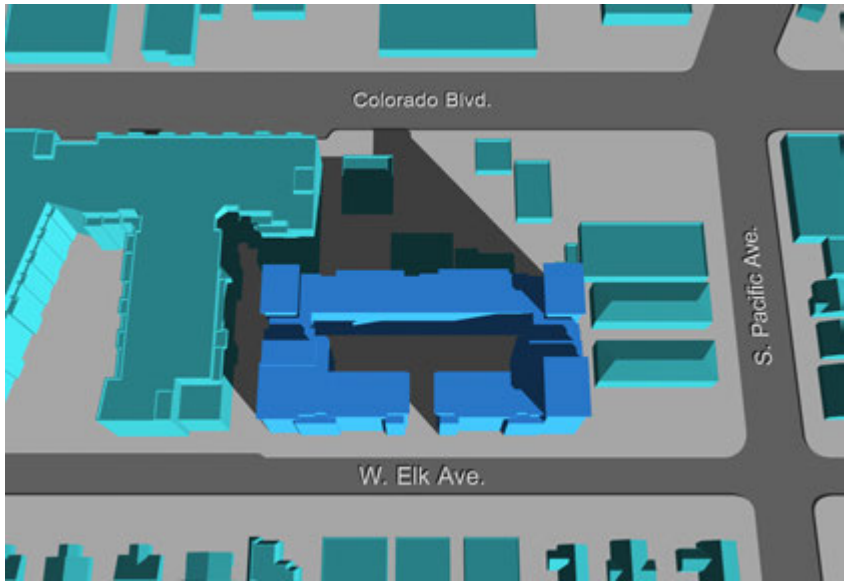
SOURCE: Paul Manzer Graphic Design – August 2014

FIGURE **4.1-10**

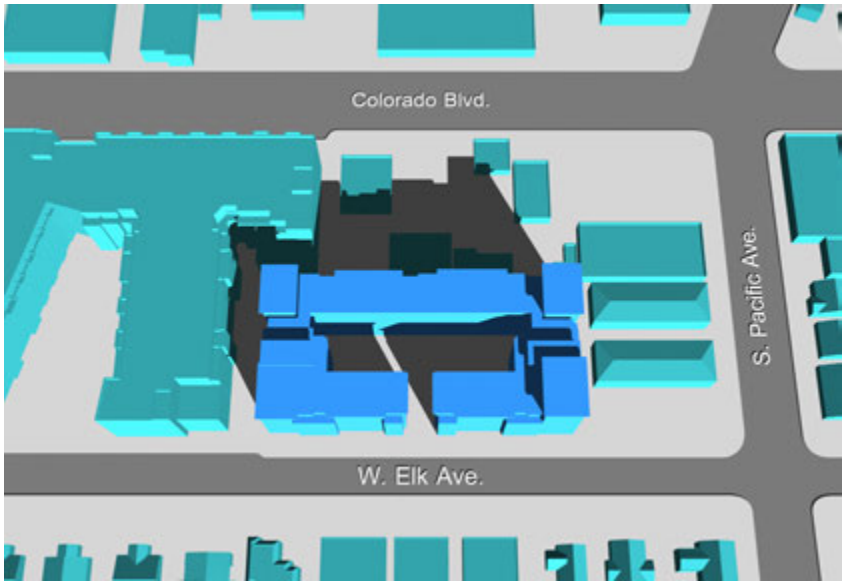
Meridian Consultants

Summer Solstice 1 PM to 5 PM

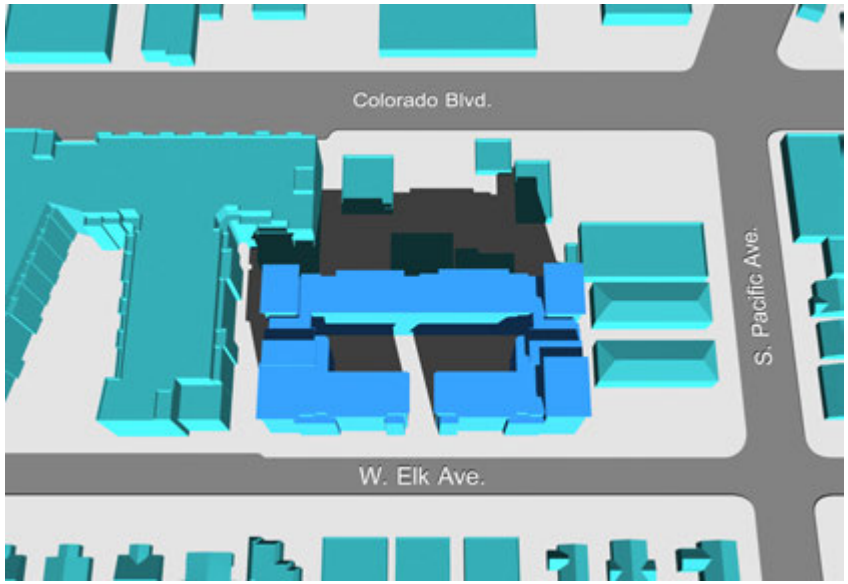
064-002-14



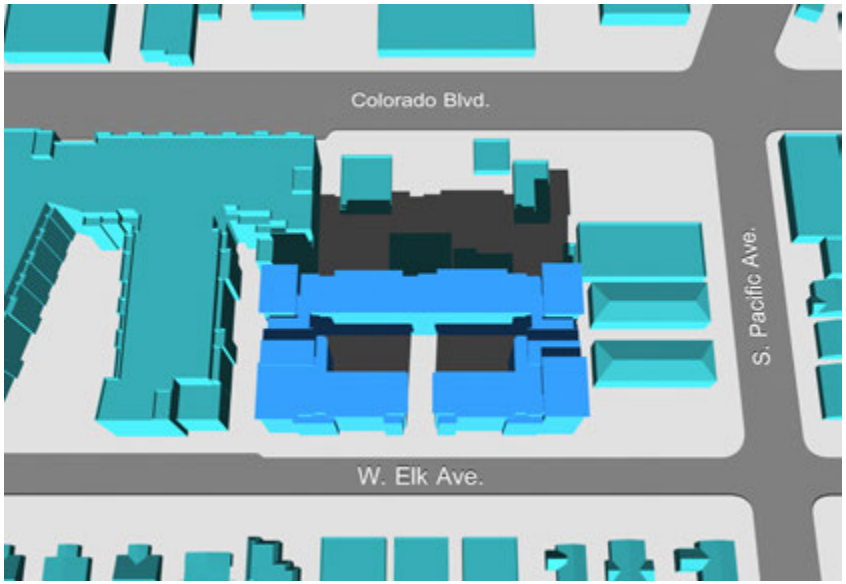
December 21st 9am



December 21st 10am



December 21st 11am



December 21st noon

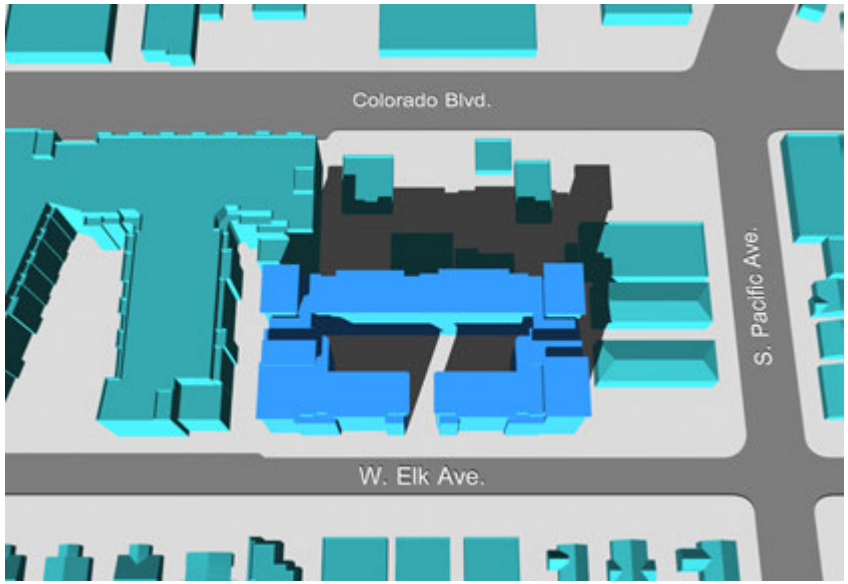
SOURCE: Paul Manzer Graphic Design – August 2014

FIGURE **4.1-11**

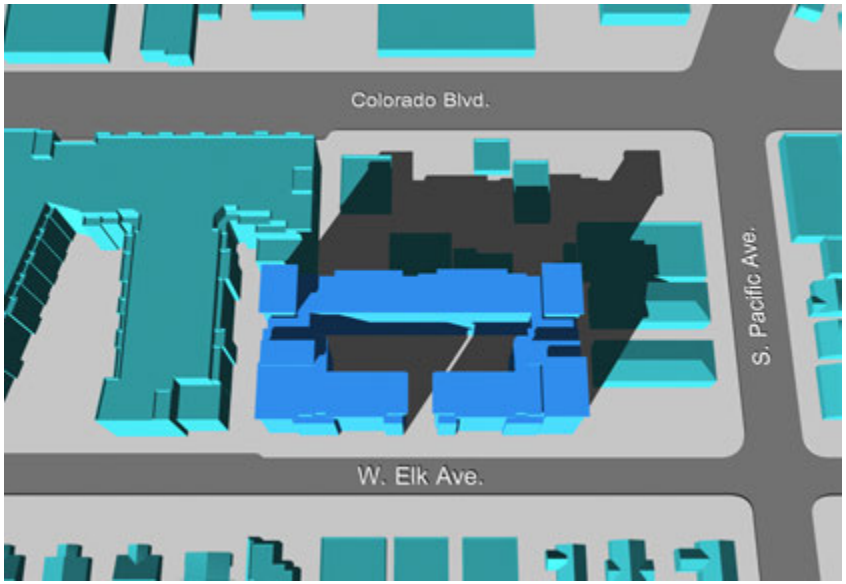
Meridian Consultants

Winter Solstice 9 AM to 12 PM

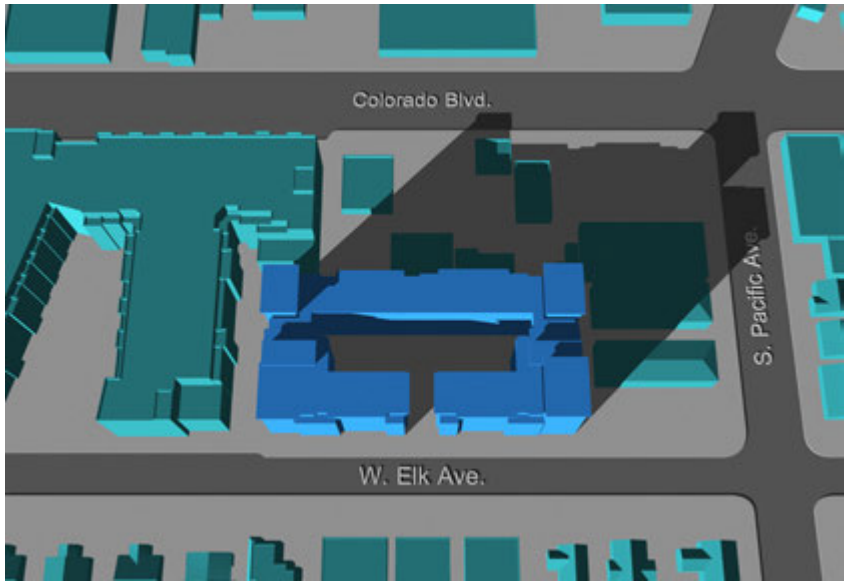
064-002-14



December 21st 1pm



December 21st 2pm



December 21st 3pm

SOURCE: Paul Manzer Graphic Design – August 2014

FIGURE **4.1-12**

Meridian Consultants

Winter Solstice 1 PM to 3 PM

064-002-14

Cumulative Impacts

Threshold: **Have a substantial adverse effect on a scenic vista.**

As described in **Section 4.0, Environmental Impact Analysis**, the nearest related project is the CCTAN/Colorado Mixed Use Project located at 525 W. Colorado Street and is approximately 0.05 miles north of the Project site. The CCTAN/Colorado Mixed Use Project consists of 18,000 square feet of commercial space and 90 multifamily residential units. The project has been approved by the City of Glendale and would have the potential to change the visual character of the surrounding area.

It is anticipated that all other related projects would be designed to include quality architecture and landscape design features in accordance with the City's Comprehensive Design Guidelines based on their location (i.e., outside or inside the downtown area) and their proposed use. As discussed, views of the Verdugo Mountains to the north, the San Rafael Hills to the northeast and the Santa Monica Mountains to the west of the Project area are partially obstructed by surrounding development. In addition, the Santa Monica Mountains are not considered a valued visual resource according to the Open Space and Conservation Element of the Glendale General Plan. Therefore, a potential cumulative impact would not result from the development of the Project in combination with other related projects. Therefore, the cumulative impact of the Project would be less than significant.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Threshold: **Substantially degrade the existing visual character or quality of the site and its surroundings.**

The CCTAN/Colorado Mixed Use Project was subject to the City of Glendale Comprehensive Design Guidelines and Agency Design Review process and has already been approved. The Project will also be subject to the City of Glendale Comprehensive Design Guidelines and Agency Design Review process. The combined development on the Project and Colorado sites would improve the local visual character through the addition of aesthetically pleasing architectural design and outdoor landscaping. Colorado would be designed as a contemporary structure and the Project would be designed in a similar contemporary interpretation of a traditional style suggestive of the craftsman style architecture. Both projects would provide landscaping along the project frontages consistent with the zoning requirements and nearby neighborhoods. The local visual character currently consists of mostly 1- to 2-story buildings that contain few windows or other architectural design features and minimal landscaping. No significant

cumulative impact on the existing local visual character, therefore, would result from the development of these two projects.

Development of the related projects would gradually change the character of the City of Glendale. As noted previously, the related projects would be designed to include quality architecture and landscape design features in accordance with the City's Comprehensive Design Guidelines based on their location and proposed use. Overall, the modifications to the visual character from the related projects would not result in the degradation of the visual appearance and the aesthetics of the surrounding area. These related projects would be required to mitigate individual project-level impacts as appropriate. Overall, the visual character in the central and western portion of the City would not change from being a predominately urban environment. Therefore, the Project would result in a less than significant contribution to significant impacts related to cumulative visual character.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

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

The Project and the CCTAN/Colorado Mixed Use Project would add lighting typical of commercial and residential developments in the area. This includes directed lighting for architectural accents, signage, landscaped elements and security focused onto pedestrian areas. Lighting plans for both projects require review and approval through the City of Glendale Design Review process. The lighting proposed would be limited to the amount required to safely light driveways to each site, the sidewalks along W. Elk Avenue and W. Colorado Street, and the open space and the courtyard areas within both sites. All outdoor lighting would be directed onto the driveways, walkways, and public areas and away from adjacent properties and public rights-of-way to avoid any potential light or glare impacts. Cumulative light or glare impacts would be less than significant (Please note that the CCTAN/Colorado Mixed Use Project has already been reviewed and approved by the City Council in May 2014). As discussed previously, the structures on the Project site would consist of light-and cool-colored exterior wall materials and would be balanced with low-reflective glass materials. Proposed building materials associated with the CCTAN/Colorado Mixed Use Project would not be permitted to be highly reflective. No cumulative glare impacts from reflective building materials would result.

Development of the Project in conjunction with other cumulative projects would gradually result in an increase in the light in the City of Glendale. The Project's individual impacts are less than significant because highly polished materials or highly reflective metal material and glass are not proposed, direct and indirect lighting used for signage would be placed on building frontages, and signage lighting would be focused onto sign surfaces and would generally be of low-to-medium brightness. The Project is intensifying land uses within the guidelines and parameters provided in the SFMU zone and the San Fernando Road Corridor Redevelopment Project Area. The majority of the related projects are a sufficient distance away from the proposed Project that cumulative light and glare impacts would not result. Each related project is evaluated individually at its proposed location with respect to its potential impact on sensitive land uses. Given that the Project would not result in a Project-level significant impact, it would not contribute to a significant cumulative impact related to light intrusion and glare.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Threshold: **Shade currently unshaded uses located off the site that are sensitive to shadow, such as residences, school playgrounds, parks, etc., for more than 2 continuous hours between 9:00 AM and 3:00 PM during the winter, or 9:00 AM and 5:00 PM during the summer.**

The CCTAN/Colorado Mixed Use Project EIR concluded that the project would not have an individual or cumulative impact on existing residential land uses in the vicinity. The Project does not exceed the 2-hour standard for shade on sensitive land uses. The Project is not anticipated to result in a Project-level significant impact. No cumulative impacts would result from the development of both projects.

Potential shade and shadow impacts are directly related to the proximity of the Project to adjacent uses. Potential shade and shadow impacts from the related projects, located throughout the City, would not result in a cumulatively considerable impact. Each project would be required to mitigate any project-level impact in accordance with the standards and design guidelines set forth in the City's General Plan and Specific Plan areas. Therefore, the Project, when considered with the related past, present, or reasonably foreseeable future projects, would result in a less than significant cumulative impact.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This section describes and evaluates the potential air quality and greenhouse gas (GHG) impacts from the Project. The Project site is located within the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). In assessing air quality and GHG impacts, the following sources were considered: emissions from equipment that will be used during construction-related activities, operational-related emissions generated from electricity and water use, and emissions from motor vehicles generated by trips to and from the Project site. This section incorporates information from the air quality emissions calculations contained in **Appendix 4.2**.

ENVIRONMENTAL SETTING

Existing Conditions

Air Quality

Air pollutant emissions within the region are primarily generated by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack at a facility. Area sources are widely distributed and can include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, parking lots, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. The main source of pollutants near the Project area includes mobile emissions generated from on-road vehicles. Traffic-congested roadways and intersections have the potential to generate localized high levels of carbon monoxide (CO). Localized areas where ambient concentrations exceed state and/or federal standards are termed CO “hotspots”.

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for setting the National Ambient Air Quality Standards (NAAQS). Air quality of a region is considered to be in attainment of the NAAQS if the measured ambient air pollutant levels are not exceeded more than once per year, except for ozone, particulate matter, and fine particulate matter and those pollutants based on annual averages or arithmetic mean. The NAAQS for ozone, particulate matter (PM10), and fine particulate matter (PM2.5) are based on statistical calculations over 1- to 3-year periods, depending on

the pollutant. The California Air Resources Board (CARB) is the state agency responsible for setting the California Ambient Air Quality Standards (CAAQS). Air quality of a region is considered to be in attainment of the CAAQS if the measured ambient air pollutant levels for ozone, CO, nitrogen dioxide, sulfur dioxide, PM10, PM2.5, and lead are not exceeded, and all other standards are not equaled or exceeded at any time in any consecutive 3-year period.

A brief description of the criteria pollutants is provided.

- **Ozone (O3)**. O3 is a gas that is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NOx), both byproducts of internal combustion engine exhaust and other sources that undergo slow photochemical reactions in the presence of sunlight. O3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.
- **Volatile organic compounds (VOCs)**. VOCs are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to form secondary air pollutants, including O3. VOCs are also referred to as reactive organic compounds (ROCs) or reactive organic gases (ROGs). VOCs themselves are not "criteria" pollutants; however, they contribute to the formation of O3.
- **Nitrogen dioxide (NO2)**. NO2 is a reddish-brown, highly reactive gas that is formed in the ambient air through the oxidation of nitric oxide (NO). NO2 is also a byproduct of fuel combustion. The principle form of NO2 produced by combustion is NO, but NO reacts quickly to form NO2, creating the mixture of NO and NO2, referred to as NOx. NO2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NOx is only potentially irritating. NO2 absorbs blue light, the result of which is a reddish-brown cast to the atmosphere and reduced visibility.
- **Carbon monoxide (CO)**. CO is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, and because motor vehicles operating at slow speeds are the primary source of CO in the basin, the highest ambient CO concentrations are generally found near congested transportation corridors and intersections.
- **Sulfur dioxide (SO2)**. SO2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high–sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms sulfates (SO4).
- **Respirable particulate matter (PM10)**. PM10 consists of extremely small, suspended particles or droplets 10 microns or smaller in diameter. Some sources of PM10, like pollen and windstorms, are naturally occurring. However, in populated areas, most PM10 is caused by road dust, diesel soot, combustion products, the abrasion of tires and brakes, and construction activities.

- **Fine particulate matter (PM2.5)**. PM2.5 refers to particulate matter that is 2.5 micrometers or smaller in size. The sources of PM2.5 include fuel combustion from automobiles, power plants, wood burning, industrial processes, and diesel-powered vehicles such as buses and trucks. These fine particles are also formed in the atmosphere when gases such as SO2, NOx, and VOCs are transformed in the air by chemical reactions.
- **Lead (Pb)**. Pb occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead in the basin. The use of leaded gasoline is no longer permitted for on-road motor vehicles, so most such combustion emissions are associated with off-road vehicles, such as racecars, that use leaded gasoline. Other sources of Pb include the manufacturing and recycling of batteries, paint, ink, ceramics, ammunition, and secondary lead smelters.

For evaluation purposes, the SCAQMD has divided its territory into 36 source receptor areas (SRA) with operating monitoring stations in most of the SRAs. These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area.

The City of Glendale, within Los Angeles County, California, is within the SCAB. The SCAB is a 6,600-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, in addition to the San Gorgonio Pass area in Riverside County.

The Project site is within SRA 7 of the South Coast Air Basin. SCAQMD operates an air monitoring station in SRA 7 in the east San Fernando Valley. **Table 4.2-1, Air Quality Monitoring Summary,** summarizes published monitoring data from 2011 through 2013. The data shows that, during the past few years, SRA 7 has exceeded the ozone, PM10, and PM2.5 standards.

The EPA and the CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified”. Federal nonattainment areas are further designated as marginal, moderate, serious, severe, or extreme as a function of deviation from standards.

Table 4.2-1
Air Quality Monitoring Summary

Air Pollutant	Averaging Time (Units)	2011	2012	2013
Ozone (O3)	Max 1 hour (ppm)	0.120	0.117	0.110
	Days > CAAQS threshold (0.09 ppm)	8	8	4
	Max 8 hour (ppm)	0.084	0.089	0.083
	Days > CAAQS threshold (0.07 ppm)	10	17	17
	Days > NAAQS threshold (0.075 ppm)	6	8	6
Carbon monoxide (CO)	Max 8 hour (ppm)	2.37	2.35	-
	Days > CAAQS threshold (9.0 ppm)	0	0	0
	Days > NAAQS threshold (9.0 ppm)	0	0	0
Nitrogen dioxide (NO2)	Mean (ppm)	0.027	-	-
	Max 1 hour (ppm)	0.067	0.079	0.072
	Days > CAAQS threshold (0.18 ppm)	0	0	0
Sulfur dioxide (SO2)	Max 24 hour (ppm)	0.002	0.002	0.002
	Days > CAAQS threshold (0.04 ppm)	0	0	0
	Days > NAAQS threshold (0.14 ppm)	0	0	0
Suspended particulate matter (PM10)	Mean ($\mu g/m^3$)	25.0	26.4	25.8
	24 hour ($\mu g/m^3$)	60	54	51
	Days > CAAQS threshold (50 $\mu g/m^3$)	2	1	1
	Days > NAAQS threshold (150 $\mu g/m^3$)	0	0	0
Fine particulate matter (PM2.5)	Mean ($\mu g/m^3$)	13.2	12.2	12.2
	24 hour ($\mu g/m^3$)	47.8	54.2	45.1
	Days > NAAQS threshold (35 $\mu g/m^3$)	5	2	4

Source: California Air Resources Board, "Historical Data by Year" (2011-2013), http://www.arb.ca.gov/adam/.
Note: > = exceed; CAAQS = California Ambient Air Quality Standard; max = maximum; mean = annual arithmetic mean; $\mu g/m^3$ = micrograms per cubic meter; ND = no data; NAAQS = National Ambient Air Quality Standard; ppm = parts per million.

The current attainment designations for the South Coast Air Basin are shown in **Table 4.2-2, South Coast Air Basin Attainment Status**. The South Coast Air Basin is currently designated as being in nonattainment for the federal ozone, lead, and PM2.5; and unclassified/attainment for the federal carbon monoxide and nitrogen dioxide. The South Coast Air Basin is currently designated as being in nonattainment for the State ozone, PM10 and PM2.5 standards. Areas where air pollution levels

persistently exceed the state or national ambient air quality standards may be designated "nonattainment."

Table 4.2-2
South Coast Air Basin Attainment Status

Pollutant	State Status	National Status
Ozone (O3)	Nonattainment	Nonattainment
Carbon monoxide (CO)	Attainment	Unclassified/Attainment
Nitrogen dioxide (NO2)	Attainment	Unclassified/Attainment
Sulfur dioxide (SO2)	Attainment	Attainment
Lead (Pb)	Attainment	Nonattainment
Suspended particulate matter (PM10)	Nonattainment	Attainment
Fine particulate matter (PM2.5)	Nonattainment	Nonattainment

Sources: CARB, "Area Designations Maps/State and National," (August 2014). http://www.arb.ca.gov/desig/adm/adm.htm. EPA, The Green Book Nonattainment Areas for Criteria Pollutants, http://www.epa.gov/air/oaqps/greenbk/index.html.

Individuals who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the SCAQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities. Commercial and industrial facilities are not included in the definition because employees do not typically remain on site for 24 hours. However, when assessing the impact of pollutants with 1-hour or 8-hour standards (such as NO2 and CO), commercial and/or industrial facilities would be considered sensitive receptors for those purposes.

Sensitive uses adjacent to the Project site include the five-story ICIS apartment complex on the west, a multifamily residential building on the east, and single and multifamily residential uses south of W. Elk Avenue.

Greenhouse Gases

Climate change is a change in the average weather of the Earth that may be measured by changes in wind patterns, storms, precipitation, and temperature. These changes are assessed using historical records of temperature changes that have occurred in the past, such as during previous ice ages. Many of the concerns regarding climate change use this data to extrapolate a level of statistical significance

specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from previous climate changes in rate and magnitude.

The United Nations Intergovernmental Panel on Climate Change (IPCC) considered six alternative future GHG scenarios that would stabilize global temperatures and climate change impacts. Without additional mitigation IPCC predicted that global mean temperature would increase in 2100 for the six scenarios from 2.5 degrees Celsius (°C) to 7.8°C. Global average temperatures and sea levels are expected to rise under all scenarios.[1]

In California, climate change may result in consequences such as the following:

- A reduction in the quality and supply of water to the State from the Sierra snowpack
- An increased risk of large wildfires
- Reductions in the quality and quantity of certain agricultural products
- Exacerbation of air quality problems
- A rise in sea levels resulting in the displacement of coastal businesses and residences
- Damage to marine ecosystems and the natural environment
- An increase in infections, disease, asthma, and other health-related problems
- A decrease in the health and productivity of California's forests

Gases that trap heat in the atmosphere are called GHGs because the effect is analogous to the way a greenhouse retains heat. Common GHGs include water vapor, carbon dioxide (CO2), methane (CH4), NOx, chlorofluorocarbons, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), O3, and aerosols. Without the natural greenhouse effect, the average temperature at Earth's surface would be below the freezing point of water.[2] However, it is believed that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentrations.

The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere. The GWP compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of CO2. A GWP is calculated over a specific time interval, commonly

1 Intergovernmental Panel on Climate Change (IPCC), *Summary for Policymakers, Climate Change 2014: The Mitigation of Climate Change,* Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, ed. Ottmar Edenhofer, Ramón Pichs-Madruga, Youba Sokona, et. al. (Cambridge: Cambridge University Press, 2014).

2 California Environmental Protection Agency (Cal/EPA), Climate Action Team, *Climate Action Team Report to Governor Schwarzenegger and the California Legislature,* http://www.energy.ca.gov/2010publications/CAT-1000-2010-005/CAT-1000-2010-005.PDF, (December 2010).

20, 100, or 500 years. GWP is expressed as a factor of CO2 (whose GWP is standardized to 1). For example, the 100 year GWP of methane is 21, which means that if the same mass of methane and CO2 were introduced into the atmosphere, that methane will trap 21 times more heat than the CO2 over the next 100 years.[3] The GHGs of most concern are identified in **Table 4.2-3, Greenhouse Gases**. Of these two primary sources of GHG—CO2 and methane–CO2 would be generated by sources associated with the Project, while methane would not be generated in any substantial amount.

Table 4.2-3
Greenhouse Gases

Greenhouse Gas	Description and Physical Properties	Sources
Carbon dioxide (CO2)	Carbon dioxide is an odorless, colorless, natural GHG. GWP = 1.	Carbon dioxide is emitted from natural and anthropogenic sources. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The concentration in 2005 was 379 ppm, which is an increase of about 1.4 ppm per year since 1960.
Methane (CH4)	Methane is a flammable gas and is the main component of natural gas. GWP = 21.	A natural source of methane is from the anaerobic decay of organic matter. Methane is extracted from geological deposits (natural gas fields). Other sources are from landfills, fermentation of manure, and cattle.
Nitrous oxide (N2O)	Nitrous oxide is also known as laughing gas and is a colorless GHG. GWP = 310.	Microbial processes in soil and water, fuel combustion, and industrial processes.

Source: IPCC, Summary for Policymakers, Climate Change 2014: The Mitigation of Climate Change, Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (Edenhofer, O., R. Pichs-Madruga, Y Sokona, et. al. [eds.]). (Cambridge University Press: Cambridge, United Kingdom, 2014).
Notes: GWP = global warming potential; ppm = parts per million; ppt = parts per trillion (measure of concentration in the atmosphere).

Individual GHG compounds have varying GWP and atmospheric lifetimes. The calculation of theCO2 equivalent is a consistent methodology for comparing GHG emissions, since it normalizes various GHG emissions to a consistent metric. Methane's warming potential of 21 indicates that methane has a 21 times greater warming affect than CO2 on a molecule per molecule basis. A CO2 equivalent is the mass emissions of an individual GHG multiplied by its GWP.

3 Rajendra K. Pachauri and Andy Reisinger, eds., *Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,* synthesis report (Geneva: IPCC 2007).

Emissions Inventory and Trends

California is the second largest contributor of GHGs in the United States and the 16th largest in the world.[4] In 2012, California produced 458.68 million metric tons of CO2 equivalents (MMTCO2e2e),[5] including imported electricity and excluding combustion of international fuels and carbon sinks or storage. The major source of GHGs in California is transportation, contributing to 37 percent of the State's total GHG emissions.[6] Electricity generation (both in and out of state) is the second largest source, contributing to 21 percent of the State's GHG emissions.[7] The statewide inventory of GHGs by sector is shown in **Table 4.2-4, California GHG Inventory 2004-2012**.

Table 4.2-4
California GHG Inventory 2004–2012

	Emissions MMTCO2e								
Main Sector	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Transportation[a]	186.88	189.08	189.18	189.27	178.02	171.47	170.46	168.13	167.38
Electric power	115.20	107.86	104.54	113.94	120.15	101.32	90.30	88.04	95.09
Commercial/ residential	42.90	41.24	41.89	42.11	42.44	42.65	43.82	44.32	42.28
Industrial[b]	94.48	92.29	90.28	87.10	87.54	84.95	88.51	88.34	89.16
Recycling and waste	7.57	7.75	7.80	7.93	8.09	8.23	8.34	8.42	8.49
High GWP[c,d]	9.56	10.36	11.08	11.78	12.87	13.99	15.89	17.35	18.41
Agriculture	36.26	36.54	37.75	37.03	37.99	35.84	35.73	36.34	37.86
Total Emissions	**492.86**	**485.13**	**482.52**	**489.16**	**487.10**	**458.44**	**453.06**	**450.94**	**458.68**

Source: CARB (2014).
[a] Includes equipment used in construction, mining, oil drilling, industrial and airport ground operations
[b] Reflects emissions from combustion of natural gas, diesel, and lease fuel plus fugitive emissions
[c] These categories are listed in the Industrial sector of ARB's GHG Emission Inventory sectors
[d] This category is listed in the Electric Power sector of ARB's GHG Emission Inventory sectors

Regulatory Setting

Air quality within the basin is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through

4 US Environmental Protection Agency (USEPA), "Inventory of US Greenhouse Gas Emissions and Sinks: 1990 to 2012," EPA-430-R-14-003 (April 2014).
5 California Air Resources Board (CARB), "California Greenhouse Gas Inventory for 2000–2012—by Category as Defined in the 2008 Scoping Plan," http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_ scopingplan_00-12_2014-03-24.pdf.
6 CARB, "California Greenhouse Gas Inventory for 2000–2012" (March 2014).
7 CARB, "California Greenhouse Gas Inventory for 2000-2012" (March 2014).

legislation, regulations, planning, policymaking, education, and a variety of programs. The agencies primarily responsible for improving the air quality within the basin are discussed in the following paragraphs along with their individual responsibilities.

Air Quality

Federal

At the federal level, the EPA is responsible for the implementation of portions of the Clean Air Act (CAA) dealing with certain mobile sources of air emissions and other requirements. Charged with handling global, international, national, and interstate air pollution issues and policies, the EPA sets national vehicle and stationary source emission standards, oversees the approval of all State Implementation Plans,[8] provides research and guidance for air pollution programs, and sets NAAQS. The NAAQS for six common air pollutants (O3, PM10 and PM2.5, NO2, CO, Pb, and SO2) shown in **Table 4.2-5, Criteria Air Pollutants**, were identified from provisions of the Clean Air Act of 1970.

The NAAQS were set to protect public health, including that of sensitive individuals. For this reason, the standards continue to change as more medical research is available regarding the health effects of the criteria pollutants. The primary NAAQS define the air quality considered necessary, with an adequate margin of safety, to protect the public health.[9] Other portions of the CAA, such as the portions dealing with stationary source requirements, are implemented by state and local agencies.

8 A State Implementation Plan is a document prepared by each state describing existing air quality conditions and measures that will be followed to attain and maintain NAAQS.

9 USEPA, "A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, EPA420-P-02-001" (October 2002); USEPA, "Ground-Level Ozone" (November 1, 2012), http://www.epa.gov/air/ozonepollution/faq.html#health; USEPA, "Particulate Matter: Health" (May 6, 2014), http://www.epa.gov/pm/health.html; USEPA, "Health and Environmental Impacts of CO" (December 10, 2012), http://www.epa.gov/airquality/carbonmonoxide/; EPA, "Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Oxides of Nitrogen and Sulfur" (March 20, 2012), http://www.epa.gov/oar/nitrogenoxides/pdfs/20120320factsheet.pdf.

Table 4.2-5
Criteria Air Pollutants

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Ozone (O3)	1 hour 8 hour	0.09 ppm 0.070 ppm	— 0.075 ppm	(a) Decrease of pulmonary function and localized lung edema in humans and animals; (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) increased mortality risk; (d) risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) vegetation damage; and (f) property damage.	O3 is a photochemical pollutant as it is not emitted directly into the atmosphere, but is formed by a complex series of chemical reactions between VOC, NOx, and sunlight. O3 is a regional pollutant that is generated over a large area and is transported and spread by the wind.	O3 is a secondary pollutant; thus, it is not emitted directly into the lower level of the atmosphere. The primary sources of ozone precursors (VOC and NOx) are mobile sources (on-road and off-road vehicle exhaust).
Carbon monoxide (CO)	1 hour 8 hour	20 ppm 9.0 ppm	35 ppm 9 ppm	(a) Aggravation of angina pectoris (chest pain) and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) impairment of central nervous system functions; and (d) possible increased risk to fetuses.	CO is a colorless, odorless, toxic gas. CO is somewhat soluble in water; therefore, rainfall and fog can suppress CO conditions. CO enters the body through the lungs, dissolves in the blood, replaces oxygen as an attachment to hemoglobin, and reduces available oxygen in the blood.	CO is produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel fuel, biomass). Sources include motor vehicle exhaust, industrial processes (metals processing and chemical manufacturing), residential wood burning, and natural sources.

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Nitrogen dioxide (NO2)[b]	1 hour Annual	0.18 ppm 0.030 ppm	0.100 ppm 0.053 ppm	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) risk to public health implied by pulmonary and extrapulmonary biochemical and cellular changes and pulmonary structural changes; and (c) contribution to atmospheric discoloration.	During combustion of fossil fuels, oxygen reacts with nitrogen to produce NOx (NO, NO2, NO3, N2O, N2O3, N2O4, and N2O5). NOx is a precursor to O3, PM10, and PM2.5 formation. NOx can react with compounds to form nitric acid and related particles.	NOx is produced in motor vehicle internal combustion engines and fossil fuel–fired electric utility and industrial boilers. NO2 concentrations near major roads can be 30 to 100 percent higher than those at monitoring stations.
Sulfur dioxide (SO2)	1 hour 3 hour 24 hour Annual	0.25 ppm — 0.04 ppm —	— 0.5 ppm 0.14 ppm 0.030 ppm	Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.	SO2 is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfur oxides (SOx) include SO_2 and sulfur trioxide. Sulfuric acid is formed from SO2, which can lead to acid deposition and can harm natural resources and materials. Although SO2 concentrations have been reduced to levels well below State and national standards, further reductions are desirable because SO2 is a precursor to sulfate and PM10.	Human-caused sources include fossil fuel combustion, mineral ore processing, and chemical manufacturing. Volcanic emissions are a natural source ofSO2. The gas can also be produced in the air by dimethylsulfide and hydrogen sulfide. SO2 is removed from the air by dissolution in water, chemical reactions, and transfer to soils and ice caps. The SO2 levels in the State are well below the maximum standards.
Particulate matter (PM10)	24 hour Mean	50 µg/m^3 20 µg/m^3	150 µg/m^3 —	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular	Suspended particulate matter is a mixture of small particles that consist of dry	Stationary sources include fuel combustion for electrical utilities, residential space

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
Particulate matter (PM2.5)	24 hour Annual	— 12 µg/m^3	35 µg/m^3 15.0 µg/m^3	disease; (b) declines in pulmonary function growth in children; and (c) increased risk of premature death from heart or lung diseases in the elderly. Daily fluctuations in PM2.5 levels have been related to hospital admissions for acute respiratory conditions, school absences, and increased medication use in children and adults with asthma.	solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM10 refers to particulate matter that is 10 microns or less in diameter, (1 micron is 1-millionth of a meter). PM2.5 refers to particulate matter that is 2.5 microns or less in diameter.	heating, and industrial processes; construction and demolition; metals, minerals, and petrochemicals; wood products processing; mills and elevators used in agriculture; erosion from tilled lands; waste disposal; and recycling. Mobile or transportation-related sources are from vehicle exhaust and road dust.
Sulfates	24 hour	25 µg/m^3	—	(a) Decrease in ventilatory function; (b) aggravation of asthmatic symptoms; (c) aggravation of cardiopulmonary disease; (d) vegetation damage; (e) degradation of visibility; and (f) property damage.	The sulfate ion is a polyatomic anion with the empirical formula SO42−. Sulfates occur in combination with metal and/or hydrogen ions. Many sulfates are soluble in water.	Sulfates are particulates formed through the photochemical oxidation of SO2. In California, the main source of sulfur compounds is the combustion of gasoline and diesel fuel.
Lead (Pb)[c]	30 day Quarter Rolling 3-month average	1.5 µg/m^3 — —	— 1.5 µg/m^3 0.15 µg/m^3	Pb accumulates in bones, soft tissue, and blood and can affect the kidneys, liver, and nervous system. It can cause impairment of blood formation and nerve conduction. The more serious effects of lead poisoning include behavior disorders, mental retardation, neurological impairment, learning deficiencies, and low IQs. Pb may also contribute to high blood pressure	Pb is a solid heavy metal that can exist in air pollution as an aerosol particle component. An aerosol is a collection of solid, liquid, or mixed-phase particles suspended in the air. Pb was first regulated as an air pollutant in 1976. Leaded gasoline was first marketed in 1923 and was used in motor vehicles until around 1970. Pb concentrations	Pb-ore crushing, Pb-ore smelting, and battery manufacturing are currently the largest sources of Pb in the atmosphere in the United States. Other sources include dust from soils contaminated with lead-based paint, solid waste disposal, and crustal physical weathering. Pb can be removed from the atmosphere through deposition to soils, ice caps,

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				and heart disease.	have not exceeded State or national air quality standards at any monitoring station since 1982.	oceans, and inhalation.
Vinyl chloride[c]	24 hour	0.01 ppm	—	Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of a rare cancer, liver angiosarcoma, and have suggested a relationship between exposure and lung and brain cancers.	Vinyl chloride, or chloroethene, is a chlorinated hydrocarbon and a colorless gas with a mild, sweet odor. In 1990, the CARB identified vinyl chloride as a toxic air contaminant and estimated a cancer unit risk factor.	Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products, including pipes, wire and cable coatings, and packaging materials. It can be formed when plastics containing these substances are left to decompose in solid waste landfills. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites.
Hydrogen sulfide (H2S)	1 hour	0.03 ppm	—	High levels of H2S can cause immediate respiratory arrest. It can irritate the eyes and respiratory tract and cause headaches, nausea, vomiting, and coughs. Long exposure can cause pulmonary edema.	H2S is a flammable, colorless, poisonous gas that smells like rotten eggs.	Manure, storage tanks, ponds, anaerobic lagoons, and land application sites are the primary sources of H2S. Anthropogenic sources include the combustion of sulfur containing fuels (oil and coal).
Volatile organic compounds (VOC)	--	There are no State or national ambient air quality standards for VOCs because they are not classified as criteria pollutants.		Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations because of interference with oxygen uptake. In general, concentrations of	VOCs are defined as any compound of carbon—excluding CO, CO2, carbonic acid, metallic carbides or carbonates, and ammonium carbonate—that participates in atmospheric	Indoor sources of VOCs include paints, solvents, aerosol sprays, cleansers, tobacco smoke, etc. Outdoor sources of VOCs are from combustion and fuel evaporation. A reduction in

Air Pollutant	Averaging Time	CA Standard	National Standard[a]	Most Relevant Effects from Pollutant Exposure	Properties	Sources
				VOCs are suspected to cause eye, nose, and throat irritation; headaches; loss of coordination; nausea; and damage to the liver, the kidneys, and the central nervous system. Many VOCs have been classified as toxic air contaminants.	photochemical reactions.	VOC emissions reduces certain chemical reactions that contribute to the formulation of ozone. VOCs are transformed into organic aerosols in the atmosphere, which contribute to higher PM10 and lower visibility.

Sources: Effects: South Coast Air Quality Management District, "Final 2012 Air Quality Management Plan," http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan (2013). California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, "Health Effects of Diesel Exhaust," http://oehha.ca.gov/public_info/facts/dieselfacts.html (2002). California Air Resources Board, "Vinyl Chloride," www.arb.ca.gov/research/aaqs/caaqs/vc/vc.htm (2009). EPA, Technology Transfer Network, "Health Effects Notebook for Hazardous Air Pollutants," Air Toxics website, http://www.epa.gov/ttnatw01/hlthef/hapindex.html (October 18, 2013). US EPA, Technology Transfer Network, "Benzene," Air Toxics website, www.epa.gov/ttn/atw/hlthef/benzene.html (October 18, 2013).
Standards: CARB, "California Greenhouse Gas Inventory for 2000-2012 by Category as Defined in the Scoping Plan," http://www.arb.ca.gov/cc/inventory/inventory.htm (2014).
Properties and sources: EPA, Office of Air and Radiation,"Nitrogen Oxides: Health," http://www.epa.gov/oaqps001/nitrogenoxides/health.html (February 2013). EPA, "Ground-Level Ozone," http://www.epa.gov/airquality/ozonepollution/faq.html#health (November 2102). EPA," A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, EPA420-P-02-001," (October 2002); EPA, "Particulate Matter: Health," http://www.epa.gov/airquality/particlepollution/health.html (May 2014). EPA," Carbon Monoxide: Health," http://www.epa.gov/airquality/carbonmonoxide/health.html. (December 2012); EPA, "Fact Sheet, Proposed Revisions to the National Ambient Air Quality Standards for Oxides of Nitrogen and Sulfur," http://www.epa.gov/oar/nitrogenoxides/pdfs/20120320factsheet.pdf. (March 20, 2012).
Notes: ppm = parts per million (concentration); $\mu g/m^3$ = micrograms per cubic meter; annual = annual arithmetic mean; 30-day = 30-day average; quarter = calendar quarter.

[a] *National standard refers to the primary national ambient air quality standard, or the levels of air quality necessary, with an adequate margin of safety to protect the public health. All standards listed are primary standards except for 3 hour SO_2, which is a secondary standard. A secondary standard is the level of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.*

[b] *EPA established a new 1-hour NO_2 standard of 100 ppb or 188 $\mu g/m^3$, which became effective April 12, 2010. In addition to establishing an averaging time and level, the EPA also set a new "form" for the standard. The form is the air quality statistic used to determine if an area meets the standard. The form for the 1-hour NO2 standard is the 3-year average of the 98th percentile of the annual distribution of daily maximum 1-hour average concentrations. This suite of standards will protect public health by limiting exposures to short-term peak concentrations of NO2, which primarily occur near major roads, and by limiting community-wide NO2 concentrations to levels below those that have been linked to respiratory-related emergency department visits and hospital admissions in the United States.*

[c] *The CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.*

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and the incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the Project include Title I, Nonattainment Provisions, and Title II, Mobile Source Provisions.

The NAAQS were also amended in July 1997 to include an 8-hour standard for O3 and to adopt a NAAQS for PM2.5. The NAAQS were amended in September 2006 to include an established methodology for calculating PM2.5, as well as revoking the annual PM10 threshold. The CAA includes the following deadlines for meeting the NAAQS within the South Coast Air Basin: (1) PM2.5 by the year 2014 and (2) 8-hour O3 by the year 2023. Although the deadline for federal 1-hour O3 standard has passed, the South Coast Air Basin has yet to attain those standards, but is continuing to implement the 2012 Air Quality Management Plan (AQMP) to attain these standards as soon as possible.

State

The California CAA, signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practicable date. The CARB, a part of the California EPA, is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, the CARB conducts research, sets State ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. The CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. **Table 4.2-5** includes the CAAQS currently in effect for each of the criteria pollutants as well as other pollutants recognized by the State. As shown in **Table 4.2-5**, the CAAQS include more stringent standards than the NAAQS.

Local

The SCAQMD shares responsibility with CARB for ensuring that all State and federal ambient air quality standards are achieved and maintained over an area of approximately 10,743 square miles. This area includes all of Orange County and Los Angeles County except for the Antelope Valley, the nondesert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County.

The Project lies within the jurisdiction of the SCAQMD, and compliance with SCAQMD rules and guidelines is required. SCAQMD is responsible for controlling emissions primarily from stationary sources. SCAQMD maintains air quality monitoring stations throughout the South Coast Air Basin.

SCAQMD, in coordination with the Southern California Association of Governments (SCAG), is also responsible for developing, updating, and implementing the AQMP for the SCAB. An AQMP is a plan prepared and implemented by an air pollution district for a county or region designated as "nonattainment" of the national and/or California ambient air quality standards. The term "nonattainment area" is used to refer to an air basin in which one or more ambient air quality standards are exceeded.

The SCAQMD approved the 2012 AQMP on December 7, 2012. The 2012 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2012 Regional Transportation Plan/Sustainable Communities Strategies and updated emission inventory methodologies for various source categories. The 2012 AQMP outlines a comprehensive control strategy that meets the requirement for expeditious progress toward attainment with the 24-hour PM2.5 federal ambient air quality standard with all feasible control measures and demonstrates attainment of the standard by 2014. The 2012 AQMP is also an update to the 8-hour O3 control plan with new emission reduction commitments from a set of new control measures, which implement the 2007 AQMP's Section 182 (e)(5) commitments. The goal of the Final 2012 AQMP is to lead the SCAB into compliance with the national 8-hour O3 and PM2.5 standards.[10]

The SCAQMD is responsible for limiting the amount of emissions that can be generated throughout the basin by various stationary, area, and mobile sources. Specific rules and regulations have been adopted by the SCAQMD Governing Board, which limit the emissions that can be generated by various uses/activities and that identify specific pollution reduction measures, which must be implemented in association with various uses and activities. These rules not only regulate the emissions of the federal and state criteria pollutants, but also toxic air contaminants (TACs) and acutely hazardous materials. The rules are also subject to ongoing refinement by SCAQMD.

Among the SCAQMD rules applicable to the Project are Rule 403 (Fugitive Dust), Rule 1113 (Architectural Coatings), and Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). Rule 403 requires the use of stringent best available control measures to minimize PM10 emissions during grading and construction activities. Rule 1113 requires reductions in the VOC content of coatings, with a substantial reduction in the VOC content limit for flat coatings. Compliance with SCAQMD Rule 1403 requires that the owner or operator of any demolition or renovation activity to have an asbestos survey performed prior to demolition and to provide notification to the SCAQMD prior to commencing

10 South Coast Air Quality Management District, *Final 2012 Air Quality Management Plan* (2013), http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan.

demolition activities. Additional details regarding these rules and other potentially applicable rules are presented in the following.

Rule 403 (Fugitive Dust). This rule requires fugitive dust sources to implement Best Available Control Measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This may include application of water or chemical stabilizers to disturbed soils, covering haul vehicles, restricting vehicle speeds on unpaved roads to 15 miles per hour (mph), sweeping loose dirt from paved site access roadways, cessation of construction activity when winds exceed 25 mph, and establishing a permanent ground cover on finished sites. SCAQMD Rule 403 is intended to reduce PM10 emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust (see also Rule 1186).

Rule 1113 (Architectural Coatings). This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1121 (Control of Nitrogen Oxides from Residential Type, Natural Gas–Fired Water Heaters). This rule prescribes NOx emission limits for natural gas-fired water heaters with heat input rates less than 75,000 British thermal unit (Btu) per hour. It applies to manufacturers, distributors, retailers, and installers of natural gas–fired water heaters. In lieu of meeting these NOx limits, this rule allows emission mitigation fees to be collected from water heater manufacturers to fund stationary and mobile source emission reduction projects targeted at offsetting NOx emissions from water heaters that do not meet Rule 1121 emission standards.

Rule 1146.2 (Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters). This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce NOx emissions from natural gas–fired water heaters, boilers, and process heaters as defined in this rule.

Rule 1186 (PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations). This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Stationary emissions sources subject to these rules are regulated through SCAQMD's permitting process. Through this permitting process, SCAQMD also monitors the amount of stationary emissions being

generated and uses this information in developing AQMPs. The Project would be subject to SCAQMD rules and regulations to reduce specific emissions and to mitigate potential air quality impacts.

Greenhouse Gases

Federal

On April 17, 2009, the EPA released a proposed finding that determined climate change poses a risk to public health. The EPA held a 60-day public comment period, which ended June 23, 2009, and which received over 380,000 public comments. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Endangerment finding: The Administrator found that the current and projected concentrations of the six key well-mixed GHGs—CO2, CH4, N2O, HFCs, PFCs, and sulfur hexafluoride (SF6)—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or contribute finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not by themselves impose any requirements on industry or other entities. However, this action is a prerequisite to finalizing the proposed EPA GHG standards for light-duty vehicles. These standards were jointly proposed by the EPA and the Department of Transportation's National Highway Safety Administration (NHTSA) on September 15, 2009. The two findings were published in the Federal Register Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010.

The EPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule that requires reporting of GHG emissions from large sources and suppliers in the United States. Under the rule (effective December 29, 2009), suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions are required to submit annual reports to the EPA. The gases covered by the proposed rule are CO2, CH4, N2O, HFC, PFC, SF6, and other fluorinated gases, including nitrogen trifluoride (NF_3) and hydrofluorinated ethers (HFE).

On September 15, 2009, the EPA and the NHTSA proposed a new national program to reduce GHG emissions and to improve fuel economy for all new cars and trucks sold in the United States. The EPA proposed the first-ever national GHG emissions standards under the CAA, and the NHTSA proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This proposed national program would allow automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both federal programs and the standards of California and other states.

State

Significant legislative and regulatory activities that affect climate change and GHG emissions in California that relate to the Project are discussed in the following.

AB 1493. California Assembly Bill 1493, enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Regulations adopted by the CARB apply to 2009 and later model year vehicles. The CARB estimates that the regulation would reduce climate change emissions from the light-duty passenger vehicle fleet by an estimated 18 percent in 2020 and by 27 percent in 2030.[11] On June 30, 2009, the US EPA granted a waiver of CAA preemption to California for the State's GHG emission standards for motor vehicles beginning with the 2009 model year. The waiver was published in the Federal Register on July 8, 2009.

Executive Order S-3-05. Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05,[12] the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be an aggressive, but achievable, midterm target. To meet these targets, the governor directed the secretary of the California EPA to lead a Climate Action Team made up of representatives from the Business, Transportation, and Housing Agency; the Department of Food and Agriculture; the Resources Agency; the CARB; the Energy Commission; and the Public Utilities Commission. The Climate Action Team's Report to the governor in 2006 contains recommendations and strategies to help ensure that the targets in Executive Order S-3-05 are met.[13]

Executive Order S-01-07. The former governor signed Executive Order S-01-07 on January 18, 2007. The order mandated that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. It also established a Low Carbon Fuel Standard for transportation fuels for California.

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11 CARB, "Climate Change Emission Control Regulations," fact sheet (December 10, 2004), http://www.arb.ca.gov/cc/factsheets/cc_newfs.pdf.

12 State of California, Executive Order S-3-05 (June 1, 2005), http://www.dot.ca.gov/hq/energy/ExecOrderS-3-05.htm.

13 Cal/EPA, Climate Action Team, "Climate Action Team Report to Governor Schwarzenegger and the California Legislature" (March 2006), www.climatechange.ca.gov/climate_action_team/reports/index.html.

SB 1368. In 2006, the State Legislature adopted Senate Bill 1368, which was subsequently signed into law by the governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for GHG emissions for the future power purchases of California utilities. In an effort to limit carbon emissions associated with electrical energy consumed in California, this bill prohibits purchase arrangements for energy for periods of longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. A coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to lower GHG emissions associated with California's energy demand, by effectively prohibiting California utilities from purchasing power from out-of-state producers that cannot satisfy the required performance standard for GHG emissions.

SB 97. SB 97 was passed in August 2007, and added Section 21083.05 to the Public Resources Code. It states:

> *(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a).*

CEQA Amendments. As required by SB 97, the Governor's Office of Planning and Research prepared and transmitted recommended Amendments to the State *CEQA Guidelines* for GHG emissions to the California Natural Resources Agency on April 13, 2009. The Office of Administrative Law reviewed the Adopted Amendments and the Natural Resources Agency's rulemaking file. The Adopted Amendments were filed with the Secretary of State, and became effective March 18, 2010.

The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing State *CEQA Guidelines* to reference climate change.

A new section, State *CEQA Guidelines* Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. This section does not provide guidance to public agencies on how to determine whether the project's estimated GHG emissions are significant or cumulatively considerable.

Also amended were State *CEQA Guidelines* Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts, respectively. GHG mitigation measures are referenced in general terms, but no specific measures are identified or required. The revision to the cumulative impact guideline directs public agencies to analyze GHG emissions in an environmental impact report (EIR) when the incremental contribution of emissions from a project being reviewed may be cumulatively considerable. However, the determination of when emissions are cumulatively considerable is left to the discretion of the public agency reviewing a proposed project.

The Amendments also added Section 15183.5, which permits programmatic GHG analyses and allows for project-specific analyses to tier off this program-level analysis, and the preparation of GHG reduction plans for a city or county. Compliance with a GHG reduction plan can then be used to support a determination that an individual project's contribution to GHG impacts is not cumulatively considerable.

In addition, the Amendments revised Appendix F of the State *CEQA Guidelines*, which focuses on Energy Conservation, and Appendix G, which includes the sample Environmental Checklist Form.

AB 32. In 2006, the California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG emissions in California. GHGs, as defined under AB 32, include CO2, CH4, NO2, HFCs, PFCs, and SF6. AB 32 requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. CARB is the state agency charged with monitoring and regulating sources of emissions of GHGs that cause global warming in order to reduce emissions of GHGs.

The CARB Governing Board approved the 1990 GHG emissions level of 427 MMTCO2e on December 6, 2007. Therefore, in 2020, emissions in California are required to be at or below 427 MMTCO2e.

Under the current "business-as-usual" scenario, statewide emissions are increasing at a rate of approximately 1 percent per year.

- 1990: 427 MMTCO2e
- 2004: 480 MMTCO2e
- 2008: 495 MMTCO2e
- 2020: 596 MMTCO2e

Under AB 32, the CARB published its Final Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California.[14] The CARB has 44 early action measures that apply to the

14 CARB, "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration" (October 2007), www.arb.ca.gov/cc/ejac/ghg_eamcommitteelist.pdf.

transportation, commercial, forestry, agriculture, cement, oil and gas, fire suppression, fuels, education, energy efficiency, electricity, and waste sectors. Of those early action measures, nine are considered discrete early action measures,[15] as they were adopted by CARB and enforceable by January 1, 2010. The CARB estimates that the 44 early action measures will result in reductions of at least 42 MMTCO2e by 2020, representing approximately 25 percent of the projected reduction needed to reach the 2020 target.

CEQA is only mentioned once in the Early Action Measures report. The California Air Pollution Control Officer's Association suggested that CARB work with local air districts on approaches to review GHG impacts under the CEQA process, including significance thresholds for GHGs for projects and to develop a process for capturing reductions that result from CEQA mitigations. CARB's response to this recommendation in the report is as follows:

> *[T]he Governor's Office of Planning and Research is charged with providing statewide guidance on CEQA implementation. With respect to quantifying any reductions that result from project-level mitigation of GHG emissions, we would like to see air districts take a lead role in tracking such reductions in their regions.*[16]

The CARB approved the Climate Change Scoping Plan (2008 Scoping Plan) in December 2008. The Scoping Plan:

> *[P]roposes a comprehensive set of actions designed to reduce overall GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health.*[17]

As noted in the approve 2008 Scoping Plan, the projected total business-as-usual emissions for year 2020 (estimated as 596 MMTCO2e) must be reduced by approximately 28 percent to achieve the CARB's approved 2020 emission target of 427 MMTCO2e. CARB updated the 2008 Scoping Plan in May 2014 (Updated 2014 Scoping Plan.[18] The Updated 2014 Scoping Plan adjusted the 1990 GHG emissions level to 431 MMTCO2e and the updated 2020 GHG emissions forecast is 509 MMTCO2e which took credit for certain GHG emission reduction measures already in place (e.g., the Renewables Portfolio Standard). As revised in 2014, the projected total business-as-usual emissions for year 2020 must be reduced by approximately 15 percent to achieve the CARB's approved 2020 emission target of 431 MMTCO2e. The

15 Discrete early actions are regulations to reduce GHG emissions adopted by the CARB Governing Board and enforceable by January 1, 2010.

16 CARB, "Expanded List of Early Action Measures" (October 2007).

17 CARB, "Climate Change Scoping Plan (a framework for change as approved December 2008) (December 2008), http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

18 CARB, *First Update to the Climate Change Scoping Plan* (May 2014) http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf.

Updated 2014 Scoping Plan also recommends a 40 percent reduction in GHG emissions from 1990 levels by 2030 and a 60 percent reduction in GHG emissions from 1990 levels by 2040.

The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
- Achieving a statewide renewable energy mix of 33 percent
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system
- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State's long-term commitment to AB 32 implementation

In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program.[19] The Scoping Plan states that the inclusion of these emissions within the cap-and-trade program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. "Uncapped" strategies include additional reductions that will not be subject to the cap-and-trade emissions requirements. They are provided as a margin of safety to help achieve required GHG emission reductions.

SB 375. SB 375 was signed into law by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which contributes to 40 percent of the total GHG emissions in California. Automobiles and light trucks alone contribute almost 30 percent. SB

19 The cap-and-trade program is a central element of AB 32 and covers major sources of GHG emissions in the State such as refineries, power plants, industrial facilities, and transportation fuels. The regulation includes an enforceable GHG cap that will decline over time. CARB will distribute allowances, which are tradable permits, equal to the emission allowed under the cap.

375 indicates that GHGs from automobiles and light trucks can be reduced by new vehicle technology but significant reductions from changed land use patterns and improved transportation are necessary. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: (1) it requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) it aligns planning for transportation and housing, and (3) it creates specified incentives for the implementation of the strategies.

Nonlegislative

California Air Pollution Control Officers Association (CAPCOA). On January 8, 2008, CAPCOA released a paper to provide a common platform of information and tools for public agencies. The disclaimer states that it is not a guidance document, but rather a resource to enable local decision makers to make the best decisions they can in the face of incomplete information during a period of change. The paper indicates that it is an interim resource and does not endorse any particular approach. It discusses three groups of potential thresholds, including a no significance threshold, a threshold of zero emissions, and a nonzero threshold.[20] The nonzero quantitative thresholds as identified in the paper range from 900 to 50,000 metric tons of CO2 per year. The CAPCOA paper also identified nonzero qualitative thresholds.[21]

Attorney General. The Office of the California Attorney General maintains a list of CEQA Mitigations for Global Warming Impacts on its website. The attorney general's office has listed some examples of types of mitigations that local agencies may consider to offset or reduce global warming impacts from a project. The attorney general's office states that the lists are examples and not intended to be exhaustive, but instead are provided as measures and policies that could be undertaken. Moreover, the measures cited may not be appropriate for every project, so the attorney general suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project. The mitigation measures are divided into two groups: generally applicable measures and general plan measures. The attorney general presents "generally applicable" measures in the following areas:

- Energy efficiency
- Renewable energy
- Water conservation and efficiency

20 California Air Pollution Control Officers Association, "CEQA & Climate Change, Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act" (January 2008), www.capcoa.org/.

21 A nonzero threshold could minimize the resources spent reviewing environmental analyses that do not result in real GHG reductions or to prevent the environmental review system from being overwhelmed.

- Solid waste measures
- Land use measures
- Transportation and motor vehicles
- Carbon offsets

South Coast Air Quality Management District

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD staff convened a GHG CEQA Significance Threshold Working Group. The GHG significance threshold approach proposed by SCAQMD staff was presented to this Working Group in September 2010. The proposed approach includes a tiered series of thresholds to be applied based on the amount of GHG emissions generated by a proposed project and the type of project, as described below:

- **Tier 1**: Does the project qualify for any applicable statutory or categorical exemption under CEQA? If yes, no further action is required and climate change impacts would be less than significant.

- **Tier 2**: Is the project consistent with a GHG reduction plan? (The plan must be consistent with CEQA Guidelines Section 15064(h)(3), or 15152(s).) If yes, there is a presumption of less than significant impacts with respect to climate change.

- **Tier 3**: Is the project's incremental increase in GHG emissions below or mitigated to less than the significance screening level (10,000 MMTCO2e per year for industrial projects; 3,000 MMTCO2e for commercial/residential projects; 3,500 MMTCO2e for mixed use projects)? If yes, there is a presumption of less than significant impacts with respect to climate change.

- **Tier 4**: Does the project meet one of the following performance standards? If yes, there is a presumption of less than significant impacts with respect to climate change.

  Option #1: Achieve some percentage reduction in GHG emissions from a base case scenario, including land use sector reductions from AB 32 (e.g., 15 percent reduction as recommended by the CARB 2014 Updated Scoping Plan).

  Option #2: For individual project, achieve a project-level efficiency target of 4.8 MMTCO2e per service population by 2020 or a target of 3.0 MMTCO2e per service population by 2035. For plans, achieve a plan-level efficiency target of 6.6 MMTCO2e per service population by 2020 or a target of 4.1 MMTCO2e per service population by 2035.

  Option #3: Early compliance with AB 32 through early implementation of CARB's 2008 Scoping Plan Measures. The intent of this option is to accelerate GHG emission reduction from the various sectors subject to CARB's 2008 Scoping Plan to eliminate GHG emission.

- **Tier 5**: Projects should obtain GHG emission offsets to reduce significant impacts. Offsets in combination with any mitigation measures should achieve the target thresholds for any of the above tiers. Otherwise, project impacts would remain significant.

As described above, for projects that are not exempt from review under CEQA, the Tier 2 threshold of significance is applied if the project is subject to a an adopted GHG reduction plan. If no GHG reduction plan applies to a proposed project, the Tier 3 threshold of significance includes quantified screening thresholds. The screening threshold for residential/commercial projects is 3,000 MMTCO2e per year and 3,500 MMTCO2e per year for mixed-use projects. If the amount of GHG emissions generated by a proposed project would be below these screening thresholds, the impact would not be considered significant. If the amount of GHG emissions generated by a proposed project would be above these screening thresholds, then additional analysis would need to be completed under Tier 4 to determine the level of significance. The Tier 4 threshold considers whether a proposed project would meet an applicable performance standard.

SCAQMD has not announced when a final version of these draft thresholds will be presented to the SCAQMD Governing Board for consideration for adoption.

SCAQMD has also adopted Rules 2700, 2701, and 2702 that establishes a GHG reduction program within SCAQMD's jurisdiction; however, GHG emission reduction protocols pursuant to these rules have only been established for boilers and process heaters, forestry, and manure management reduction projects.

ENVIRONMENTAL IMPACTS

Methodology

Air Quality

Short-term emissions of criteria air pollutants (e.g., CO, SO_X, PM10, and PM2.5) generated by project construction and ozone precursors (e.g., VOC and NO_X) were assessed in accordance with SCAQMD-recommended methods. Where quantification was required, these emissions were modeled using the CARB-approved California Emissions Estimator Model 2013.2.2 (CalEEMod) computer program as recommended by the SCAQMD. CalEEMod is designed to model construction emissions for land use development projects and allows for the input of project specific information. Project-generated emissions were modeled based on information provided in the **Section 3.0, Project Description** and SCAQMD-recommended and default CalEEMod model settings to estimate reasonable worst-case conditions. Emission modeling assumes construction to commence in mid-2015.

The Project would be constructed in three phases: (1) demolition; (2) site preparation and grading; and (3) construction of new building and site improvements.

Phase I would include the demolition and removal of the single-story wholesale auto parts business and the adjacent parking lot. Demolition would occur over a 1-month period, and approximately 19,250 cubic yards of demolition material would be generated. This material would be hauled north on Central Avenue to SR 134 or east along W. Elk Avenue, to S. Pacific Avenue, and then west along W. Colorado Street to I 5 and would be disposed of a certified mixed debris recycling facility near Glendale. This phase would require the use of concrete/industrial saws, rubber tiered dozers, a tractor, dozer, and related equipment.

Phase II would include the removal of existing fill materials over a 4- to 6-month period. Grading on the Project site would require excavation up to depths of 30 feet below the ground surface, and it is anticipated that 28,500 cubic yards of earth material would be removed from the site. Material would be hauled via the same route to the same location as demolition debris. Heavy construction equipment would be located on site during site preparation/grading activities and would not travel to and from the Project site on a daily basis. It is anticipated that equipment associated with these activities would include a loader, dozer, excavator and dump trucks, and related heavy-duty equipment.

Phase III would include the construction of the subterranean parking and above-grade building and all related improvements over an 11 month period. It is anticipated that equipment needs associated with above-grade construction activities would include cranes and miscellaneous machinery and related equipment. The use of material delivery trucks and other miscellaneous trucks are anticipated during this phase of construction.

The emission calculations assume the use of standard construction practices, such as compliance with SCAQMD Rule 402 (Nuisance) and Rule 403 (Fugitive Dust), to minimize the generation of fugitive dust. Compliance with Rule 402 and 403 are mandatory for all construction projects. In the CalEEMod model, the emission calculations take into account compliance with Rule 402 and Rule 403 by incorporating the following measures:

- Watering of exposed surfaces and unpaved roads three times daily, which is estimated to reduce fugitive dust emissions from this source (both PM10 and PM2.5) by 61 percent, per guidance from the SCAQMD.
- Reduction of vehicle speeds to 15 mile per hour on unpaved roads
- Replacement of onsite ground cover within 30 days of completion of construction activities.

Project-generated, regional area and mobile-source emissions of criteria air pollutants and ozone precursors were also modeled using the CalEEMod computer program. CalEEMod allows land use selections that include project location specifics and trip generation rates. CalEEMod accounts for area-

source emissions from the use of natural gas, landscape maintenance equipment, and consumer products and from mobile-source emissions associated with vehicle trip generation.

The analysis of daily operational emissions has been prepared using the data and methodologies identified in the SCAQMD's CEQA Air Quality Handbook and current motor vehicle emission factors in the CalEEMod. Trip rates for these land uses were obtained from the traffic memo for the Project (see **Appendix 6.0**). As shown in the traffic memo, the total number of trips associated with the proposed Project would increase in comparison with the existing number of trips associated with the current wholesale auto parts business. Existing operational emissions of criteria air pollutants and ozone precursors associated with the wholesale auto parts business were modeled using CalEEMod. Existing operational emissions were then compared with operational emissions associated with the Project by taking the difference between the two.

Other air quality impacts (i.e., CO, TACs, and odors) were assessed in accordance with methodologies recommended by SCAQMD.

Greenhouse Gases

GHG emissions were modeled using the CalEEMod computer program and emission factors from California Climate Action Registry, as recommended by SCAQMD, which estimates construction and operations emissions of carbon dioxide, among other air pollutants. Project-generated emissions were modeled based on general information provided in **Section 3.0**. Existing operational GHG emissions associated with the wholesale auto parts business were also modeled using CalEEMod, and compared with existing operational emissions associated with the Project.

The Project would become operational in 2017 and would result in direct annual emissions of GHGs during operation. Operational emissions would be generated by both area and mobile sources because of normal day-to-day activities. Area source emissions would be generated by the consumption of natural gas for space and water heating devices (including residential use water heater and boilers). Area source emissions are based on emission factors contained in the CalEEMod model. Mobile emissions would be generated by the motor vehicles traveling to and from the Project site. Trip generation rates provided in the traffic report for the Project were used to estimate the mobile source emissions.

The Project would also result in indirect GHG emissions due to the electricity demand, water consumption, and waste generation. The emission factor for CO2 due to electrical demand from Glendale Water and Power, the electrical utility serving the Project, was selected in the CalEEMod model. Electricity consumption was based on default data found in CalEEMod for the respective land use

types. In addition to electrical demand, the Project would also result in indirect GHG emissions due to water consumption, wastewater treatment, and solid waste generation. The estimate of Project water demand, wastewater generation, and solid waste generation is described in **Section 4.7, Utilities and Service Systems**, of the Draft EIR.

The Project incorporates design features that would reduce GHG emissions. The following is a list of project design features that would reduce GHG emissions:

- Residential Density: High-density residential developments would reduce the number of project generated vehicles trips.
- Public Transit: Residential land uses within 0.25 mile of a public transit stop would reduce the number of project-generated vehicles trips and vehicle miles traveled.
- Energy Efficiency: The Project would be designed to meet the requirements of Glendale Ordinances 5714 and 5736, which adopt the California Green Building Standards (CALGreen).
- The Project would be designed to reduce water consumption compared to conventionally designed projects of similar size and scope. Such features would include low flow faucets, toilets, shower, and water efficient irrigation systems.
- The Project would be designed to reduce solid waste generation by including a recycling and composting program per City of Glendale requirements.

Thresholds of Significance

Air Quality

In order to assist in determining whether a project would have a significant effect on the environment, the City finds a project may be deemed to have a significant air quality impact if it would:

- Conflict with or obstruct the implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

Under Section 15064.7 of the State CEQA Guidelines, the Lead Agency may rely on the threshold of significance criteria established by the applicable air quality management district or air pollution control district. The SCAQMD is an expert commenting agency on air quality within its jurisdiction or impacting

its jurisdiction as has established thresholds within their CEQA Air Quality Handbook. Under the Federal CAA, the SCAQMD has adopted federal attainment plans for O3 and PM10. The SCAQMD reviews projects to ensure that they would not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

Regional Air Quality Thresholds

The CEQA Air Quality Handbook provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. If the SCAQMD thresholds are exceeded, a potentially significant impact could result. However, ultimately the lead agency determines the thresholds of significance for impacts. If a project proposes development in excess of the established thresholds, as outlined in **Table 4.2-6, South Coast Air Quality Management District Emissions Thresholds**, a significant air quality impact may occur and additional analysis is warranted to fully assess the significance of impacts.

Table 4.2-6
South Coast Air Quality Management District Emissions Thresholds (pounds/day)

Pollutant	Construction	Operational
Nitrogen dioxide (NO2)	100	55
Volatile organic compound (VOC)	75	55
Carbon monoxide (CO)	550	550
Sulfur dioxide (SO2)	150	150
Respirable particulate matter (PM10)	150	150
Fine particulate matter (PM2.5)	55	55

Source: SCAQMD, CEQA Air Quality Handbook(November 1993).

Local Carbon Monoxide Thresholds

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the proposed project are above or below state and federal CO standards. If the project causes an exceedance of either the State 1-hour or 8-hour CO concentrations, the project would be considered to have a significant local impact. If ambient levels already exceed a state or federal standard, then project

emissions are considered significant if they increase 1-hour CO concentrations by 1.0 ppm or more, or 8 hour CO concentrations by 0.45 ppm or more pursuant to SCAQMD Rule 1303(b).

Localized Significance Thresholds

The SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Project site as a result of construction activities. This evaluation requires that anticipated ambient air concentrations, determined using a computer-based air quality dispersion model, be compared to localized significance thresholds for PM10, PM2.5, NO2, and CO. The significance threshold for PM10 represents compliance with Rule 403 (Fugitive Dust), while the thresholds for NO2 and CO represent the allowable increase in concentrations above background levels in the vicinity of the Project that would not cause or contribute to an exceedance of the relevant ambient air quality standards. The significance threshold for PM2.5 is intended to constrain emissions so as to aid in progress toward attainment of the ambient air quality standards.

For project sites of 5 acres or less, the SCAQMD Localized Significance Threshold (LST) Methodology includes screening tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., not cause an exceedance of the applicable concentration limits) without project-specific dispersion modeling. The allowable emission rates depend on (a) the SRA in which the project is located, (b) the size of the project site, and (c) the distance between the project site and the nearest sensitive receptor (e.g., residences, schools, hospitals).

The Project site is 0.72-acres in size. The nearest sensitive receptors are multifamily and single-family residences to the east, west, and south of the site. The distance used to determine the mass-rate emissions from the screening tables is 25 meters (82 feet), as specified in the LST Methodology. The allowable mass-rate emissions were linearly extrapolated for a 0.72-acre site using the specified threshold for a 1-acre site. The applicable thresholds are shown in **Table 4.2-7, Localized Significance Thresholds for a 0.72-Acre Site Located in SRA 7 (East San Fernando Valley)**. It should be noted that LST Methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling along the roadways.

Table 4.2-7
Localized Significance Thresholds for a 0.72-Acre Site Located in SRA 7 (East San Fernando Valley)

Pollutant	LST Threshold (pounds per day)
Construction	
Nitrogen dioxide (NO2)	58
Carbon monoxide (CO)	359
Respirable particulate matter (PM10)	3
Fine particulate matter (PM2.5)	2
Operational	
Nitrogen dioxide (NO2)	58
Carbon monoxide (CO)	359
Respirable particulate matter (PM10)	1
Fine particulate matter (PM2.5)	1

Cumulative Emissions Thresholds

The SCAQMD's CEQA Air Quality Handbook identifies several methods to determine the cumulative significance of land use projects (i.e., whether the contribution of a project is cumulatively considerable). However, the SCAQMD no longer recommends the use of these methodologies. Instead, the SCAQMD recommends that any construction-related emissions and operational emissions from individual development projects that exceed the project-specific mass daily emissions thresholds identified previously also be considered cumulatively considerable.[22] The SCAQMD neither recommends quantified analyses of the emissions generated by a set of cumulative development projects nor provides thresholds of significance to be used to assess the impacts associated with these emissions.

Greenhouse Gases

For the purpose of this analysis, the following qualitative thresholds of significance, as suggested by the State CEQA Guidelines (Appendix G), have been used to determine whether implementation of the Project would result in significant GHG or climate change impacts.

A GHG or climate change impact is considered significant if the Project would involve either of the following:

22 Tracy A. Goss and Amy Kroeger, South Coast Air Quality Management District, "White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions"(August 2003), Appendix D, p. D-3.

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs

As indicated previously, the SCAQMD convened a GHG CEQA Significance Threshold Working Group in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents. The goal of the working group was to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until the CARB, or some other state agency, develops statewide guidance on assessing the significance of GHG emissions under CEQA. In December 2008, staff presented the SCAQMD Governing Board with a significance threshold of 10,000 MMTCO2e for stationary source projects where SCAQMD is the lead agency. To date, the SCAQMD has not formally adopted any threshold or methodology for residential and commercial land use projects. The Working Group has released draft documents that recommend all new land use projects not exceed a screening threshold of 3,000 MMTCO2e per year. Although a significance threshold has not been formally adopted, the Working Group draft recommendations represent the best available information with which to evaluate project significance with respect to GHG emissions and climate change for projects located in the South Coast region. This screening threshold is used in this EIR for the purposes of determining significance.

Project Impacts

Air Quality

Threshold: Conflict with or obstruct the implementation of the applicable air quality plan.

The 2012 AQMP was prepared to accommodate growth, to reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, to return clean air to the region, and to minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections utilized in the formulation of the AQMP. Therefore, projects, uses, and activities that are consistent with the applicable assumptions used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's recommended daily emissions thresholds.

Demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment), developed by SCAG for their 2012 Regional Transportation Plan/Sustainable Communities Strategies were used to estimate future emissions within the 2012 AQMP. Projects that are consistent with the growth projections are considered consistent with the AQMP. The Project would result in population growth for the region. According to the California Department of Finance estimates, the

current population (2014) within the City of Glendale is 195,799 residents.[23] Based on SCAG data, the population projections used to estimate emissions in the 2012 AQMP for year 2020 anticipated a population of 198,900 within the City of Glendale. The Project would generate approximately 185 residents, which would account for approximately 3.5 percent of the anticipated increase of residents within the City between 2013 and 2020.[24] This total is within the growth projections for the City of Glendale as adopted by SCAG. Because the SCAQMD has incorporated these same projections into the AQMP, the Project would be consistent with the projections in the 2012 AQMP.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Threshold: **Violate any air quality standard or contribute substantially to an existing or projected air quality violation.**

Construction

Project construction is anticipated to last approximately 18 months and is expected to commence in mid-2015. The estimated maximum daily emissions during Project construction are listed in **Table 4.2-8, Construction Emissions (pounds/day)**. These estimates are based on the expected location, size, and development of the Project. The analysis assumes that all of the construction equipment and activities would occur continuously over the day and that activities would overlap. In reality, this would not occur, as most equipment would operate only a fraction of each workday and many of the activities would not overlap on a daily basis. Therefore, **Table 4.2-8** represents a worst-case scenario for construction activities. The modeling also incorporates standard compliance with SCAQMD rules and regulations, as previously discussed in **Methodology**.

23 California Department of Finance, "E-5: City/County Population and Housing Estimates" (January 1, 2014).

24 185 Project residents / 5,248 (the increase in residents in Glendale between 2013 and 2020) = 0.035

Table 4.2-8
Construction Emissions (pounds/day)

Source	VOC	NOx	CO	SOx	PM10	PM2.5
Maximum*	16.11	10.61	13.01	0.02	1.18	1.14
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod emissions calculations are provided in **Appendix 4.2.***
** Maximum emissions represent the single day with the highest emissions throughout the construction period from 2015-2017.*

As indicated in **Table 4.2-8**, construction of the Project would result in a maximum daily emission of 16.11 pounds/day of VOC, 10.61 pounds/day of NO_X, 13.01 pounds/day of CO, 0.02 pounds/day of SO_X, 1.18 pounds/day of PM10, and 1.14 pounds/day of PM2.5. The maximum daily emission on any given day during construction would not exceed SCAQMD thresholds for criteria pollutants. Although emissions for VOC, PM10 and PM2.5 are below SCAQMD thresholds, standard measures in compliance with SCAQMD rules and regulations would be implemented.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Operational

The estimated operational emissions are based upon development of the proposed land uses on the Project site, and are presented in **Table 4.2-9, Estimated Operational Emissions**. As shown, the emissions associated with the Project would not exceed the SCAQMD's recommended operational emission thresholds. As a result, the operational impacts associated with the Project would be considered less than significant.

Table 4.2-9
Estimated Operational Emissions (pounds/day)

Source	VOC	NOx	CO	SOx	PM10	PM2.5
Operational Emissions	3.32	4.24	22.06	0.04	2.63	0.77
SCAQMD threshold	55	55	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod emissions calculations are provided in **Appendix 4.2.***

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Threshold: **Expose sensitive receptors to substantial pollutant concentrations.**

Localized Significance Threshold

The SCAQMD recommends the evaluation of localized NOx, CO, PM 10, and PM2.5 impacts as a result of onsite construction and operational activities to sensitive receptors in the immediate vicinity of the Project site. This analysis determines the ambient air quality impacts due to construction and operational activities on the day with the highest estimated daily mass emission rates as presented in **Table 4.2-7**. The Project-specific localized significance thresholds for SRA 7 (East San Fernando Valley) are shown in **Table 4.2-10, LST Worst-Case Emissions (pounds/day)**, and are compared with the maximum daily on-site construction and operational emissions.

Table 4.2-10
LST Worst-Case Emissions (pounds/day)

Source	NOx	CO	PM10	PM2.5
Construction				
Total mitigated maximum emissions	10.61	13.01	1.18	1.14
LST threshold	58	359	3	2
Threshold exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	0.19	5.98	0.03	0.03
LST threshold	58	359	1	1
Threshold exceeded?	**No**	**No**	**No**	**No**

*Source: CalEEMod emissions calculations are provided in **Appendix 4.2.***

As shown in **Table 4.2-10,** construction emissions would not exceed LSTs within SRA 7 for PM10 and PM2.5. LSTs for PM10 and PM2.5 would be the greatest during the demolition and grading phases which are anticipated to take place over the first five to seven months of construction. All other construction emissions, as well as operational emissions, would not exceed the LSTs within SRA 7. Therefore, potential construction and operation LST impacts would be considered less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Localized Carbon Monoxide Hotspots

CO is produced in greatest quantities from vehicle combustion, and is usually concentrated at or near ground level because it does not readily disperse into the atmosphere. As a result, potential air quality impacts to sensitive receptors are assessed through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create "pockets" of CO called "hotspots". These pockets have the potential to exceed the state ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm. Note that the federal levels are based on 1- and 8-hour standards of 35 and 9 ppm, respectively. Thus, an exceedance condition would occur based on the state standards prior to exceedance of the federal standard. As such, exceeding the State ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm would constitute a significant air quality impact from the creation of substantial concentrations of CO.

The SCAQMD suggests that localized CO impacts be evaluated at intersections due to increases in project-related off-site mobile sources. The SCAQMD recommends performing a localized CO impact analysis for intersections that change from level of service (LOS) C to D as a result of the project and for all intersections rated D or worse where the project increases the volume-to-capacity ratio by 2 percent or more. No intersection in the vicinity of the Project falls under the SCAQMD's criteria requiring a more detailed localized CO impact analysis. As a result, no significant Project-related impacts would occur relative to future carbon monoxide concentrations.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Toxic Air Contaminants

California Accidental Release Prevention (CalARP) Program

Projects that use hazardous materials or emit toxic air contaminants (TACs) have the potential to expose sensitive receptors to adverse health impacts. The residential land uses associated with the Project are not anticipated to use hazardous or acutely hazardous materials in appreciable quantities. Hazardous substances currently are regulated under the California Accidental Release Prevention (CalARP) Program. The CalARP Program satisfies the requirements of the Federal Risk Management Plan Program, and contains additional state requirements. The CalARP Program applies to regulated substances in excess of specific quantity thresholds. The majority of the substances have thresholds in the range of

100 to 10,000 pounds. The residential uses associated with the Project may contain small amounts of hazardous substances such as household cleaners and other products. This type of hazardous material would not emit substantial amounts of toxic air emissions on the Project site. Accordingly, the Project would not result in a significant impact with respect to hazardous materials.

SCAQMD Rule 1401

The proposed residential land uses may potentially emit trace amounts of TACs but would not exceed the thresholds contained in SCAQMD Rule 1401 (New Source Review of Toxic Air Contaminants) and would not result in an incremental increase in cancer risk of 10 in 1 million or more or a Hazard Index of 1.0 or more. Diesel-fueled waste-hauling trucks would drive to and from the Project site resulting in emissions of diesel particulate matter. However, the number of trucks would be equal to that occurring in other similarly developed residential neighborhoods throughout the region. Residential land uses are not substantial sources of TACs as well. Therefore, the site is not expected to generate emissions of TACs that would exceed the SCAQMD's cancer risk threshold of 10 in 1 million or the noncancer Hazard Index threshold of 1.0.

CARB has determined that adverse health effects are generally elevated near heavily traveled roadways. The CARB guidance document, Air Quality and Land Use Handbook, recommends that lead agencies, where possible, avoid siting new sensitive land uses within 500 feet of a freeway,[25] urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. This recommendation is not mandated by state law, but only serves as a general guidance to lead agencies when considering land use projects. The Air Quality and Land Use Handbook states that it is up to lead agencies to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues. The Project would not locate sensitive land uses within 500 feet of freeways, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. For these reasons, no significant impacts are anticipated with respect to TACs.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

25 California Air Resources Board, *Air Quality and Land Use Handbook* (2005), 8–9. The 2002 study of impacts along the San Diego (I 405) Freeway and the Long Beach (I 710) Freeway cited by CARB in its *Air Quality and Land Use Handbook* found a substantial reduction in pollutant concentrations, relative exposure, and health risk beyond 300 feet.

Threshold: Create objectionable odors affecting a substantial number of people.

During Project construction, certain pieces of construction equipment could emit odors associated with exhaust. However, odors emitted from certain pieces of construction equipment would dissipate quickly and be short term in duration. Odors resulting from spray coating applications of paint and related materials during construction would be regulated by SCAQMD Rule 481. This rule imposes equipment and operational restrictions during construction for all spray painting and spray coating operations. Compliance with SCAQMD rules and permit requirements would ensure that no objectionable odors are created during construction. Therefore, impacts from odors during construction would be less than significant.

According to the SCAQMD, "while almost any source may emit objectionable odors, some land uses will be more likely to produce odors… because of their operation." Land uses that are more likely to produce odors include agriculture, chemical plants, composting operations, dairies, fiberglass molding, landfills, refineries, rendering plants, rail yards, and wastewater treatment plants. The Project would not include any of these land uses. Consequently, no significant impacts from odors are anticipated from the Project.

Any unforeseen odors generated by the Project will be controlled in accordance with SCAQMD Rule 402 (Nuisance). Rule 402 prohibits the discharge of air contaminants that cause "injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Failure to comply with Rule 402 could subject the offending facility to possible fines and/or operational limitations in an approved odor control or odor abatement plan.

The Project would develop additional urban residential uses on the Project site, similar to uses already existing in the surrounding area, and would not include uses that would generate significant objectionable odors. Operation of the Project would involve the disposal of refuse. This refuse would be disposed of in outdoor trash receptacles and could generate occasional odors pending regular collection and ultimate disposal into a sanitary landfill. However, Project-generated refuse would be disposed into appropriate garbage collection containers, which would be covered and enclosed as required by the City of Glendale. Additionally, garbage collection containers would be emptied on a regular basis, in compliance with City of Glendale regulations for the collection of solid waste. As a result, impacts from odors would be less than significant.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Greenhouse Gases

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

As described previously, the draft SCAQMD guidelines recommend that all land use or mixed-use projects meet a threshold of 3,000 MMTCO2e. If a project exceeds the threshold, it should demonstrate a reduction in GHG emissions equivalent to AB 32 or meet a per service population GHG intensity of 4.8 MMTCO2e.

The Project would result in short-term emissions of GHGs during construction. Site-specific or project-specific data were used in the CalEEMod model where available. Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to include construction-related GHG emissions when assessing all of the long-term GHG emissions associated with a project. Therefore, current practice is to annualize construction-related GHG emissions over a project's lifetime in order to include these emissions as part of a project's annualized lifetime total emissions, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. A project lifetime has generally been defined as 30 years. In accordance with this methodology, the estimated Project's construction GHG emissions have been annualized over a 30-year period and are included in the annualized operational GHG emissions.

The annual net GHG emissions associated with the operation of the Project when compared to the existing on-site use is provided in **Table 4.2-11, Estimated Operational Greenhouse Gas Emissions**. The sum of the direct and indirect emissions associated with the Project is compared with the SCAQMD's screening threshold of significance for mixed-use and all land use projects, which is 3,000 MTCO2e per year. As shown in **Table 4.2-11**, the Project would not exceed the SCAQMD recommended threshold.

Table 4.2-11
Estimated Operational Greenhouse Gas Emissions

GHG Emissions Source	Project Emissions (MTCO2e /year)	Existing Emissions (MTCO2e /year)	Difference (Project – Existing Emissions)
Construction (amortized)	12.83	-	-
Operational (mobile) sources[1]	594.49	64.78	529.71
Area sources	1.22	0.001	1.22
Energy	156.20	46.20	110.0
Waste	5.72	8.74	(3.02)
Water	24.80	37.08	(12.28)
Total	**795.26**	**156.81[2]**	**638.45**

*Source: CalEEMod emissions calculations are provided in **Appendix 4.2.***
1 *N2O emissions account for 0.04 MTCO2e per year.*
2 *Existing emissions do not include construction.*

Taking the existing wholesale auto parts business into account, the Project would result in a net increase of 638.45 MTCO2e per year. Therefore, the Project would result in less than significant impacts with respect to GHG emissions.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Cumulative Impacts

Air Quality

Threshold: **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).**

In large part, the SCAQMD 2012 AQMP was prepared to accommodate growth, to meet state and federal air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. According to the SCAQMD CEQA Air Quality Handbook, projects that are within the mass emission thresholds identified above should be considered less than significant on a cumulative basis unless there is other pertinent information to the contrary.[26] As shown in **Table 4.2-8** and **Table**

26 South Coast Air Quality Management District, *CEQA Air Quality Handbook* (9–12).

4.2-9, construction and operational emissions would not exceed the SCAQMD project-level thresholds of significance. Therefore, the Project would not be cumulatively considerable and would result in a less than significant impact on a cumulative basis.

Level of Significance before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

Greenhouse Gases

Threshold: **Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**

The goal of AB 32 is to reduce statewide GHG emissions to 1990 levels by 2020. In December 2008, CARB adopted the Climate Change Scoping Plan, which details strategies to meet that goal. The 2008 Scoping Plan instructs local governments to establish sustainable community strategies to reduce GHG emissions associated with transportation, energy, and water, as required under SB 375. Planning efforts that lead to reduced vehicle trips while preserving personal mobility should be undertaken in addition to programs and designs that enhance and complement land use and transit strategies. The 2008 Scoping Plan also recommends energy-efficiency measures in buildings such as maximizing the use of energy efficient appliances and solar water heating as well as complying with green building standards that result in decreased energy consumption compared to Title 24 building codes. In addition, the 2008 Scoping Plan encourages the use of solar photovoltaic panels and other renewable sources of energy to provide clean energy and reduce fossil-fuel based energy. The CARB 2014 Updated Scoping Plan was updated in May 2014, which adjusted the statewide GHG emissions reduction goals to achieve 1990 levels.

In addition to the measures listed in the Climate Change Scoping Plan, other state offices have provided recommended measures that would assist lead agencies in determining consistency with the state's GHG reduction goals. The California Attorney General's Office (AGO) has stated that lead agencies can play an important role in "moving the State away from 'business as usual' and toward a low-carbon future."[27] The AGO has released a guidance document that provides information to lead agencies that may be helpful in carrying out their duties under CEQA with respect to GHGs and climate change impacts. Provided in the document are measures that can be included as project design features,

27 California Office of the Attorney General, "The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level" (2008).

required changes to the project, or mitigation measures at the project level and at the general-plan level. The measures are not intended to be exhaustive and may not be appropriate for every project or general plan. The AGO affirms that "the decision of whether to approve a project—as proposed or with required changes or mitigation—is for the local agency, exercising its informed judgment in compliance with the law and balancing a variety of public objectives."

Although the Project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. Given the Project's consistency with state GHG emission reduction goals and objectives, the Project's contribution to the cumulative impact of greenhouse gas emissions would not be cumulative considerable and would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs (i.e., the 2014 Updated Scoping Plan). Similarly, related projects would also be anticipated to comply with these same emissions reduction goals and objectives. Therefore, cumulative impacts with respect to greenhouse gas emissions would be less than significant.

2e**Level of Significance before Mitigation:** Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Less than significant.

4.3 LAND USE AND PLANNING

This section addresses the consistency of the Project with applicable local land-use policies, including the City of Glendale's General Plan; the City's Municipal Code, including the Zoning Ordinance; and the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project area.

ENVIRONMENTAL SETTING

Regional Setting

The City of Glendale is located within the six-county jurisdiction of the Southern California Association of Governments (SCAG), which also includes Ventura, Orange, San Bernardino, Riverside, and Imperial counties. SCAG has divided its jurisdiction into 13 Subregions to facilitate regional planning efforts. The City is located in the Arroyo-Verdugo Subregion.

The Arroyo-Verdugo Subregion is bordered by the San Gabriel Mountains to the north (North Los Angeles County Subregion), the Los Angeles River and Santa Monica Mountains to the south (Los Angeles City Subregion), the San Fernando Valley to the west (Los Angeles City Subregion), and the San Gabriel Valley (San Gabriel Valley Subregion) to the east. The Arroyo-Verdugo Subregion includes the Cities of Burbank, Glendale, La Cañada-Flintridge, and the unincorporated communities of La Crescenta and Montrose.

Local Setting

The Project site is located within the western portion of the City of Glendale and within the central portion of the San Fernando Road Corridor Redevelopment Area. The Project site is located approximately 1,200 feet east of the boundary between the Cities of Glendale and Los Angeles. Interstate (I) 5 (Golden State Freeway), State Route (SR) 134 (Ventura Freeway), and SR 2 (Glendale Freeway) provide regional access to the Project site. As illustrated in **Figure 4.3-1, Project Vicinity**, the Project site consists of two continuous parcels located north of West Elk Avenue between San Fernando Road and South Pacific Avenue.

The Project site is 0.72 acres (31,250 square feet) and is currently developed with a 1-story concrete block building, currently being occupied by a wholesale auto parts business and a surface parking lot. Land uses surrounding the Project site include the 5-story ICIS apartment complex and commercial uses to the west, auto repair and medical office uses including Hamlet's BMW service and a medical office building to the north, a 2-story apartment building to the east, and single and multifamily residential uses to the south of West Elk Avenue.

Regulatory Setting

Southern California Association of Governments

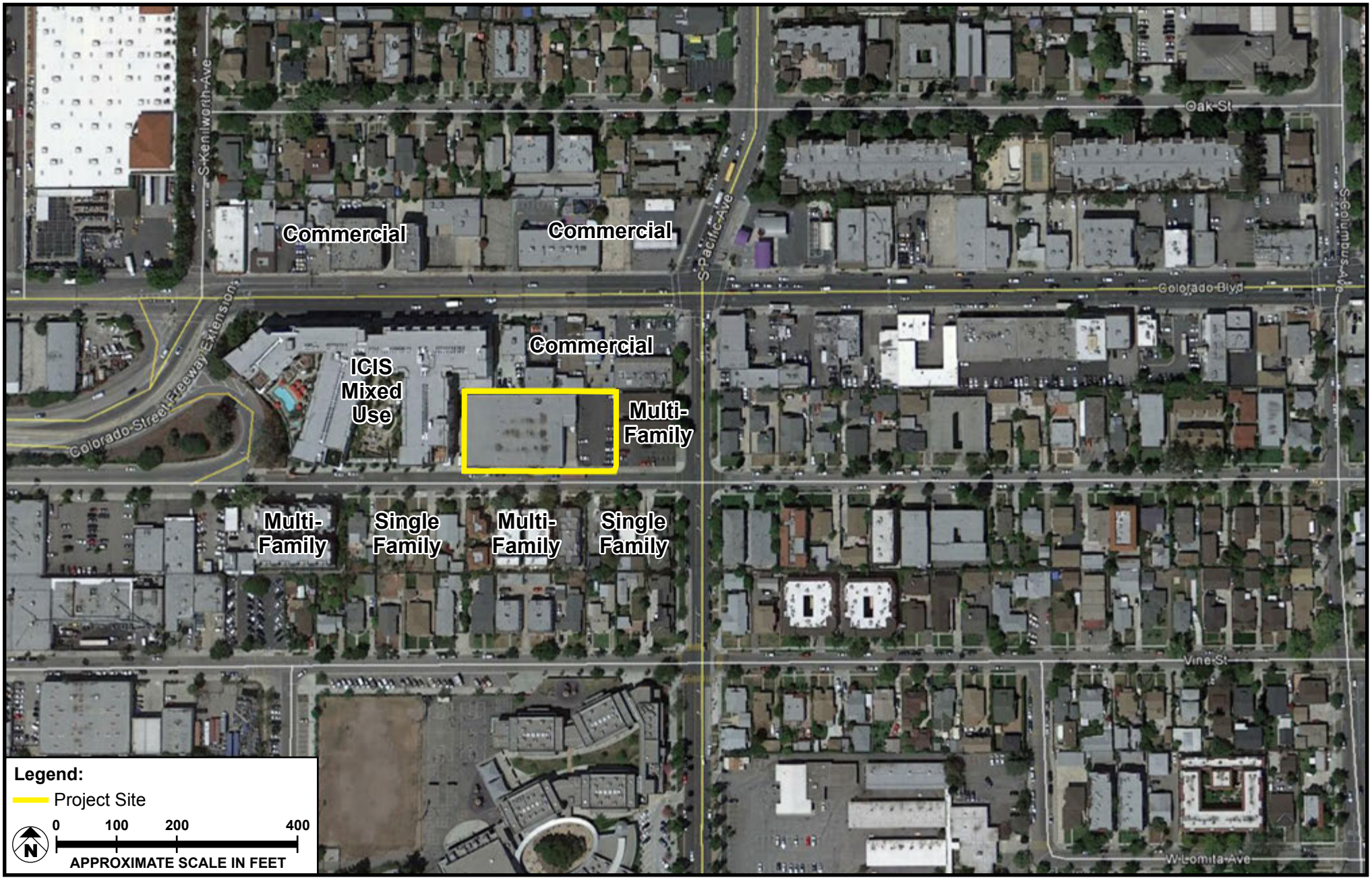
SCAG is the authorized regional agency for inter-Governmental Review of programs proposed for federal financial assistance and direct development activities. Additionally, SCAG reviews environmental impact reports for projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. SCAG is also responsible for the designated Regional Transportation Plan, including its Sustainable Communities Strategy component, pursuant to SB 375. The Sustainable Communities Strategy has been formulated to reduce greenhouse gas (GHG) emissions from passenger vehicles by 8 percent per capita by 2020 and 13 percent per capita by 2035 compared to 2005 targets set by the California Air Resources Board.

The 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socioeconomic, geographic, and commercial limitations.

SCAG reviews the consistency of local plans, projects, and programs with regional plans to determine if projects are considered regionally significant. If a project meets the criteria "Projects of Statewide, Regional, or Areawide Significance" described in Section 15206(b) of the State CEQA Guidelines,[1] SCAG requests that the project be analyzed for consistency with applicable policies in the RTP/SCS.[2] Projects meeting these criteria include residential projects if more than 500 units, hotels with more than 500 rooms, shopping centers or business establishments employing more than 1,000 persons or containing more than 500,000 square feet of floor space, office buildings employing more than 1,000 persons or containing more than 250,000 square feet of floor space, and industrial facilities or industrial parks employing more than 1,000 persons or containing more than 650,000 square feet of floor space. The Project does not meet the criteria for projects of Statewide, Regional, or Areawide Significance.

1 CEQA, Section 150206(b), Projects of Statewide, Regional, or Areawide Significance (2014).

2 Southern California Association of Governments, *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy* (April 2012).



SOURCE: Google Earth – 2014

FIGURE **4.3-1**

Meridian Consultants

Project Vicinity

064-002-14

City of Glendale General Plan

The State of California mandates that every city and county prepare a general plan. A general plan is a comprehensive policy document outlining the capacity of future development in a city or county. Development in the City of Glendale is subject to the City's General Plan, which is divided into 11 elements, including Land Use, Housing, Circulation, Open Space, Conservation, Noise, Safety, Air Quality, Community Facilities, Recreation, and Historical Preservation. The Land-Use Element has the broadest scope of all the General Plan Elements. The Land-Use Element establishes the pattern of land use in the city and sets standards and guidelines to regulate development.

As illustrated in **Figure 4.3-2, Land Use Designation Map**, the Project site is currently designated as Mixed Use. The Mixed Use designation is intended to allow uses that would provide a mix of residential and commercial uses, and all commercial or residential use. Allowed uses include the residential uses proposed by the Project.

City of Glendale Zoning Ordinance

The Glendale Zoning Ordinance is the primary tool for implementing the General Plan Land-Use Element. For each defined zone, the ordinance identifies the uses permitted and applicable development standards such as density, height, parking, and landscaping requirements.

As illustrated on **Figure 4.3-3, Zoning Designation Map**, the Project site is currently zoned Commercial/Residential Mixed Use (SFMU). The SFMU zoning classification allows a mix of residential and commercial uses, and all commercial or residential use.[3] The SFMU zone designation allows buildings on a site not adjacent to single or multifamily zones to be up to 6 stories and 75 feet in height with a maximum density of 100 dwelling units per acre. The Project site is 0.72 acres in size and would be allowed a maximum density of 72 dwelling units.

Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area (the "Redevelopment Plan")

In 1992, the Glendale Redevelopment Agency[4] prepared and adopted the Redevelopment Plan for the San Fernando Road Corridor Redevelopment Project Area ("Redevelopment Plan"). As shown in **Figure 4.3-4, San Fernando Road Corridor Redevelopment Project Area**, the San Fernando Road Corridor Redevelopment Project Area includes 750 acres, generally extending along the length of the San

3 Glendale Municipal Code, 30.14.010, Purpose (2014).

4 The Glendale Redevelopment Agency was created in 1972 for the purpose of improving, upgrading, and revitalizing areas within the City that had become blighted because of deterioration, disuse, and unproductive economic conditions. It was a legal and separate public body, with separate powers and a separate budget from the City.

Fernando Road corridor, including areas west to the I-5 Freeway and to the Union Pacific Railroad right-of-way ("Redevelopment Project Area"). The Project site is located within the boundaries of the Redevelopment Plan Area.

The primary objective of the Redevelopment Plan is to eliminate conditions of blight by revitalizing and upgrading the commercial and industrial properties and facilities within the Redevelopment Project Area.

Improvements identified in the Redevelopment Plan include the removal or rehabilitation of physically obsolete or substandard structures; the elimination of nonconforming land uses; improvements to streets, drainage, and other public facilities; and general aesthetic improvement of the Redevelopment Project Area.[5] New General Plan and Zoning designations and development regulations were adopted by the Glendale City Council for the Redevelopment Project Area on August 17, 2004. Several commercial/office/retail projects and public improvement projects are located within the Redevelopment Project Area.

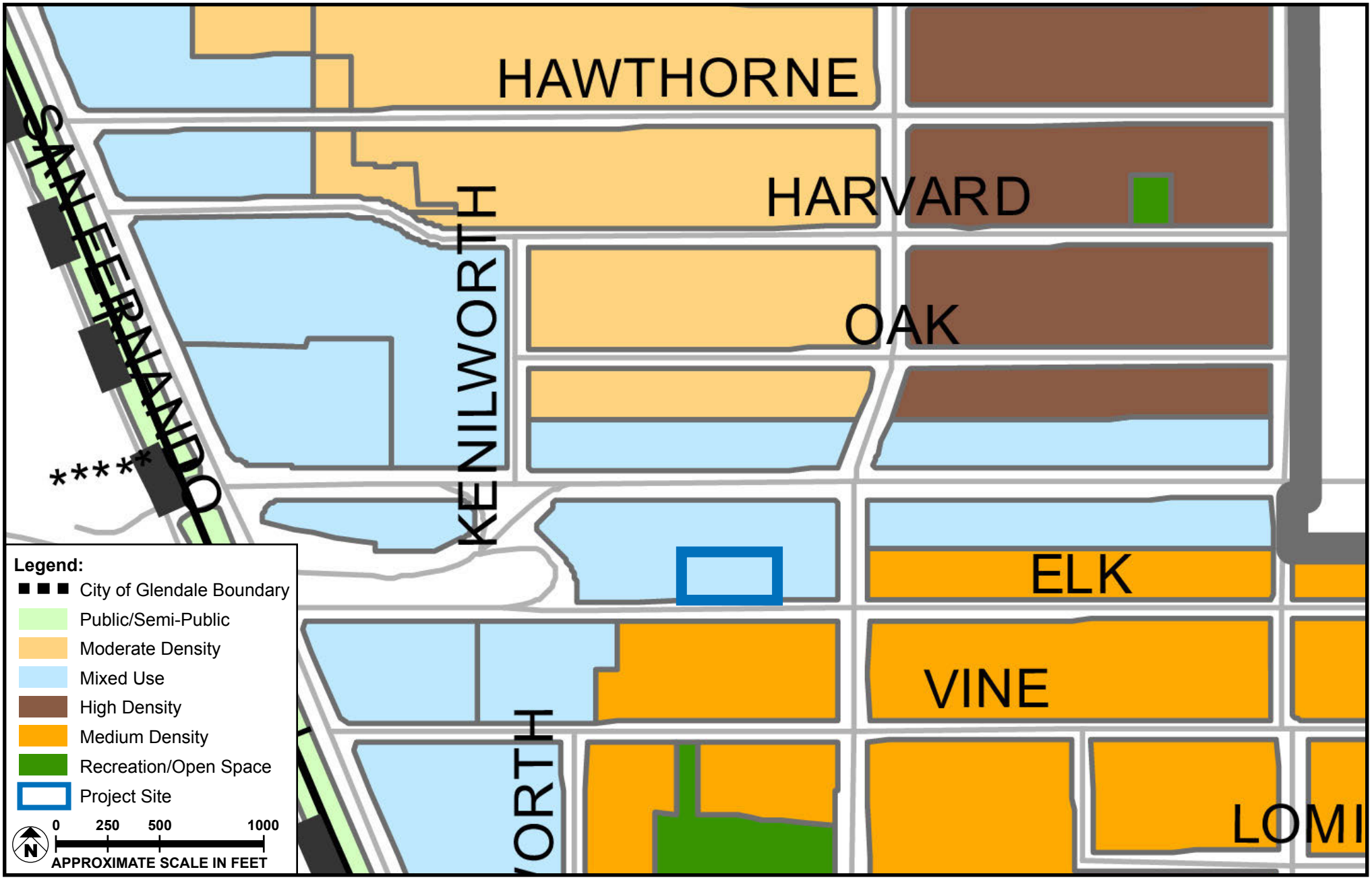
Assembly Bill (AB) 1x26 and Assembly Bill (AB) 1484 (collectively, "The Redevelopment Dissolution Act") eliminated redevelopment agencies in California effective February 1, 2012. The City of Glendale elected to assume the power, duties, and obligations of the former Glendale Redevelopment Agency as the Glendale Successor Agency pursuant to the Redevelopment Dissolution Act. The Glendale Successor Agency[6] is responsible for winding down the activities of the former Glendale Redevelopment Agency in accordance with the Redevelopment Dissolution Act.

According to the Redevelopment Plan, the former Glendale Redevelopment Agency proposed the following actions to meet this objective:

- Participation in the redevelopment process by owners and occupants of properties located in the Redevelopment Plan boundaries, consistent with the Redevelopment Plan and rules adopted by the Redevelopment Agency
- Acquisition of real property
- Management of property under the ownership and control of the Redevelopment Agency

5 City of Glendale, "San Fernando Road Redevelopment Project Area," http://www.ci.glendale.ca.us/dev-svcs/SFCorridor.asp.

6 The Glendale Successor Agency undertakes enforceable obligations and performs duties pursuant to the enforceable obligations in compliance with the Dissolution Act. The Glendale Successor Agency staff also serves as staff to the Oversight Board.



SOURCE: City of Glendale, Community Development Department - 2012

FIGURE **4.3-2**

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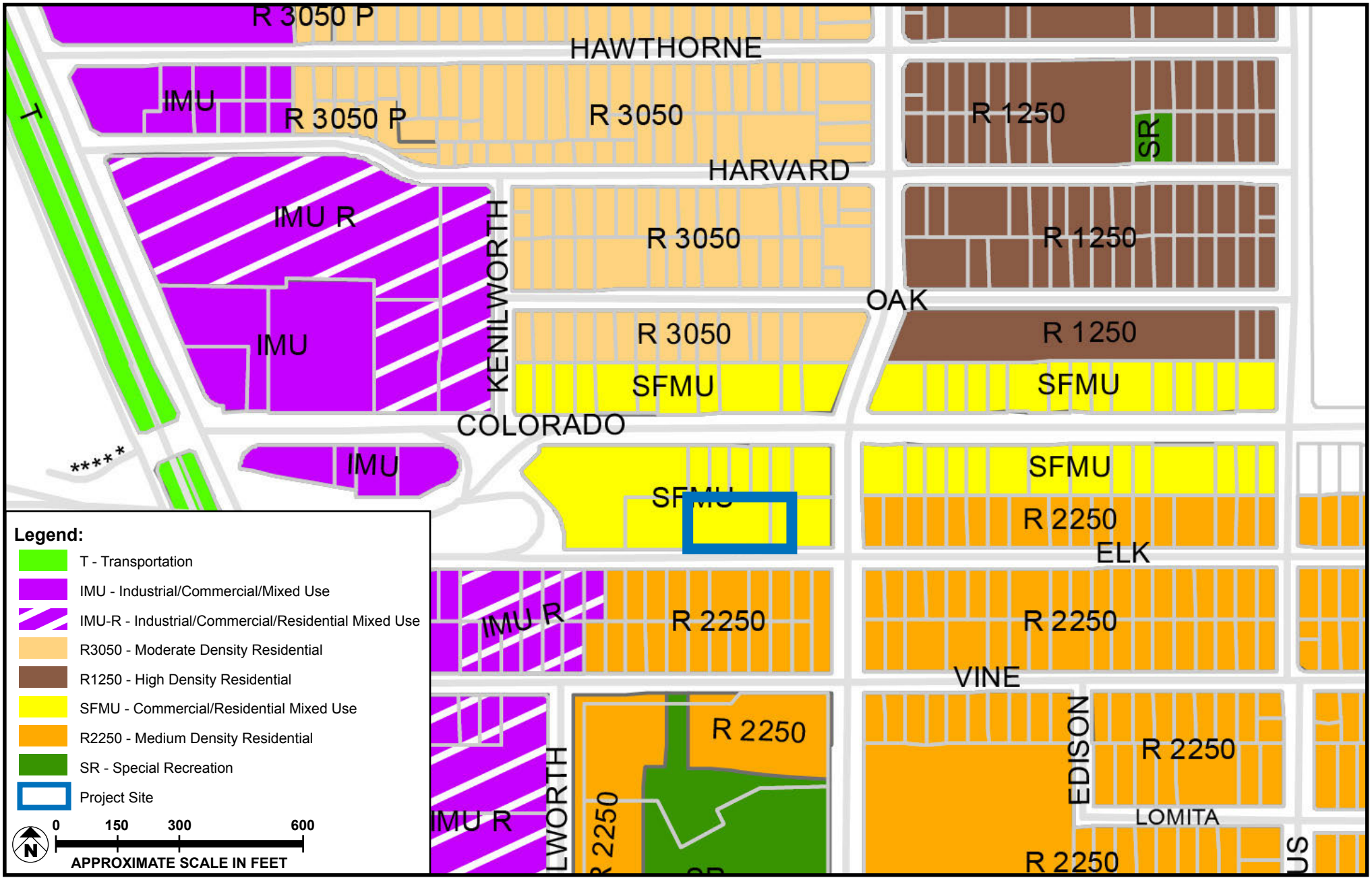
Land Use Designation Map

064-002-14



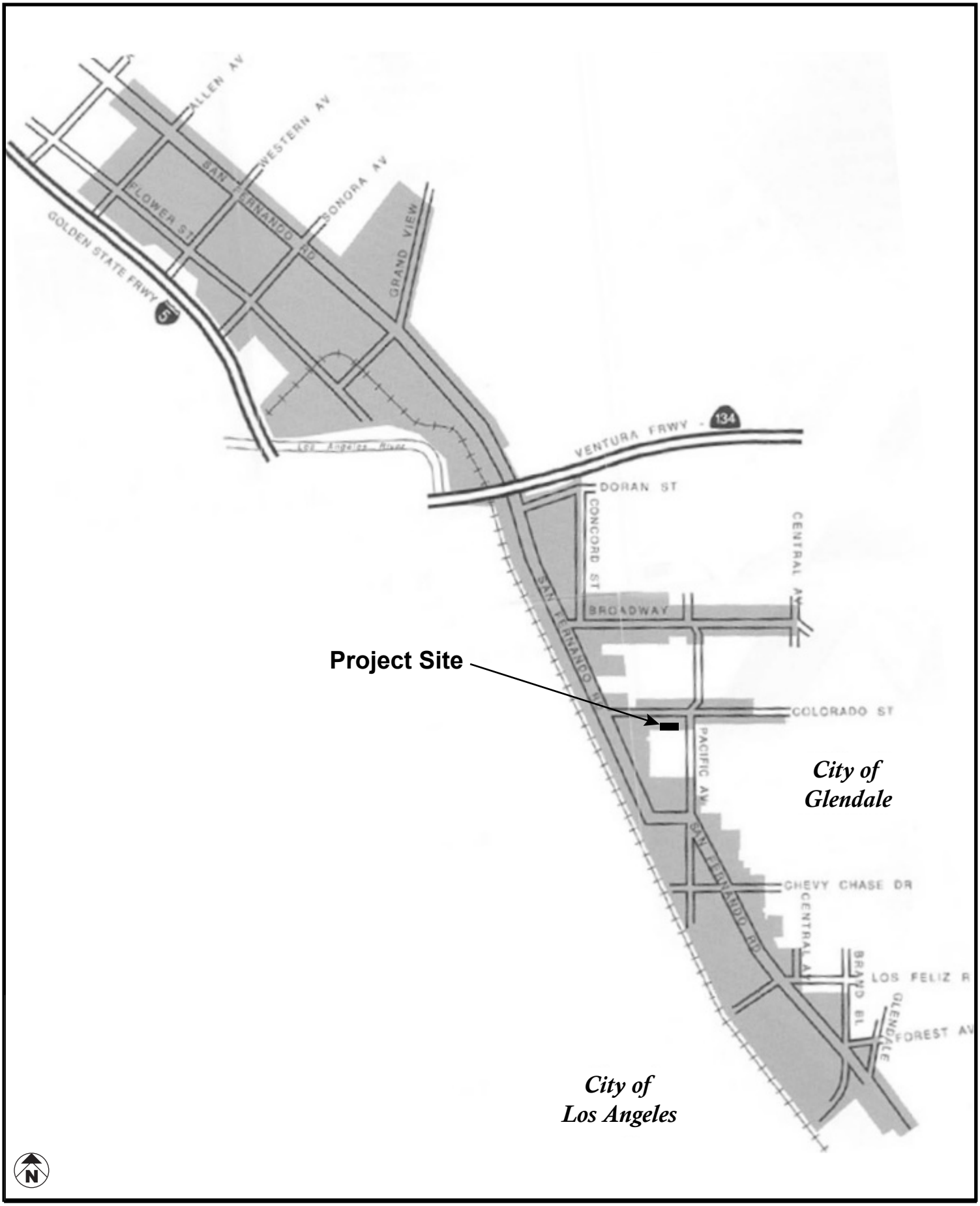
SOURCE: City of Glendale, Community Development Department - 2013

FIGURE **4.3-3**

Meridian Consultants

Zoning Designation Map

064-002-14



SOURCE: City of Glendale - 2008

FIGURE **4.3-4**

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San Fernando Road Corridor Redevelopment Project Area

064-002-14

- Relocation assistance to displaced occupants of property acquired by the Redevelopment Agency in the Redevelopment Plan boundaries
- Demolition or removal of buildings and improvements
- Installation, construction, expansion, addition, extraordinary maintenance, or reconstruction of streets, utilities, and other public facilities and improvements
- Disposition of property for uses in accordance with the Redevelopment Plan
- Redevelopment of land by private enterprise or public agencies for uses in accordance with the Redevelopment Plan
- Rehabilitation of structures and improvements by present owners, their successors, and the Redevelopment Agency
- Rehabilitation, development, or construction of low and moderate income housing within the City
- Retention of controls and establishment of restrictions or covenants running with the land so that property will continue to be used in accordance with the Redevelopment Plan

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines a project may be deemed to have a significant impact on land use and planning if it would:

- Physically divide an established community.
- Conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with any applicable habitat conservation plan or natural community conservation plan (issue is addressed in **Section 6.0, Effects Not Found to be Significant**).

Methodology

The determination of the Project's consistency with applicable land-use plans and policies is based on a review of the previously identified planning documents that regulate land use or guide land-use decisions at and around the Project site. The Project is considered to be consistent with the provisions of the identified regional and local plans if it meets the general intent of the plan and would not preclude the attainment of the primary intent of the land-use plan or policy.

Project Impacts

Threshold: **Physically divide an established community.**

The Project site is currently developed with a 1-story building and a surface parking lot occupied by a wholesale auto parts business. The Project includes the demolition of the existing building and associated surface parking lot and the development of a 5-story building containing 71 multifamily apartment units with two levels of subterranean parking.

The General Plan land-use designation is Mixed Use and zoning designation is SFMU, as previously identified in **Figure 4.3-2** and **Figure 4.3-3**, respectively. General Plan land-use designations surrounding the Project site include Mixed Use to the north, east, and west with Medium Density Residential to the south of West Elk Avenue. Zoning designations surrounding the Project site include SFMU to the west, north and east and R2250 (Medium Density Residential) to the south across West Elk Avenue.

Development of the Project is consistent with the Mixed Use land use designation and SFMU zoning; both of which allow a mix of residential and commercial use.

The Project site is located in an urbanized area surrounded by commercial, auto repair, medical office, parking, and medium density residential uses. The Project would involve the development of multifamily residential uses configured and designed to be compatible with surrounding uses. The Project would not divide the established community and impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Conflict with any applicable land-use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.**

The development features a 5-story building plus a mezzanine level and two levels of subterranean parking. The Mixed-Use designation permits a mix of commercial and residential uses, as well as exclusively commercial, industrial, or residential land uses. Similarly, pursuant to Section 30.14.010(B) Table 30.14-A of the City's Zoning Ordinance, residential uses are permitted within the SFMU Zone. As previously stated, the Project site is designated as Mixed Use by the General Plan and zoned as SFMU.

The maximum allowed residential development by the SFMU zone is 100 dwelling units per acre, 75 feet and 6 stories when not abutting single- or multifamily zones. Development standards also require 140 square feet of open space per residential unit. A minimum of 10 percent of the lot area must be landscaped.

The Project includes 71 multifamily residential units which is 1 fewer units than allowed by the Glendale Municipal Code. The total height of the building would be approximately 73 feet with five stories plus a mezzanine level, which is 2 feet lower than allowed by the Glendale Municipal Code. The Project would designate 6,138 square feet of common open space that includes the lobby, swimming pool, common areas, and a landscaped sundeck. An approximately 761 square-foot recreation room would also be provided. The balconies will provide a total of 6,035 square feet of private open space. The average open space provided per unit would be 171 square feet, which is 31 square feet more than required by the Glendale Municipal Code. The Project site is designed to include approximately 4,954 square feet of landscaped area that is approximately 16 percent of the site, or an additional 6 percent increase above that required by the Glendale Municipal Code. The Project is in conformance with the SFMU zone for the Project site. Therefore, the residential development as proposed would be permitted under the existing General Plan and zoning designations.

The Project requires a discretionary approval, specifically a combined Stage I/II Design Approval. This is a common approval action in the City and is required to ensure consistency with the City's goals and policies.

With respect to the Design Review, the City of Glendale Community Development Division has a multistage design review process for proposed projects. The Stage I/II Design Review will include both conceptual and final design review, and will be considered for approval by the City Council after completion of the environmental analysis. The design of the Project would be subject to the *City of Glendale Comprehensive Design Guidelines*.

A total of 161 subterranean parking spaces would be provided on site per the Glendale Municipal Code (GMC).[7] Access to the subterranean garage would be provided via a two-way driveway on West Elk Avenue. A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be located along West Elk Avenue and within the northwestern portion of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. The courtyard area in the northwest portion of the site would include furnishing, benches, and/or other seating.

7 Glendale Municipal Code, Chapter 30.32, Parking and Loading (2004).

An analysis of the Project's consistency with the applicable goals of the land-use plans, policies, and regulations of the General Plan and the San Fernando Road Corridor Redevelopment Plan is provided below.

Consistency with General Plan

Land Use Element

General

Goal: Effectuate a moderate growth policy for the City of Glendale consistent with community needs, available services, and the environment.

As discussed in **Section 6.0, Effects Not Found to be Significant**, the expected increase in population and housing from the Project is within the projected growth for the City of Glendale. As such, the Project would be consistent with this goal.

Goal: Reinforce Glendale's image and community identity with the greater Los Angeles area metropolitan complex.

The Project is a multifamily residential project consisting of a 5-story apartment building with 71 multifamily residential units with mezzanine above the fifth story, similar to the adjacent ICIS apartment project and the proposed CCTAN/Colorado Street Mixed Use Project north of W. Colorado Street. The Project would be designed in a contemporary interpretation of a traditional style suggestive of the craftsman style architecture, similar to proposed metropolitan projects within the greater Los Angeles area. The Project would provide residential amenities, such as an approximately 761-square foot activity room and common outdoor areas. The Project would designate 6,138 square feet of common open space that includes the lobby, swimming pool, common areas, and a landscaped sundeck. The swimming pool area on the ground floor and the sundeck on the second floor would include furnishing, benches, and/or other seating. The balconies will provide a total of 6,035 square feet of private open space. The Project site is designed to include approximately 4,954 square feet of landscaped area. The addition of aesthetically pleasing architecture, as well as the variety of outdoor space and landscaped areas associated with the Project would contribute to Glendale's image and community identity, offering residential uses in and near downtown. Additionally, the Project would be compatible with the multifamily residential ICIS building located adjacent to the west. As such, the Project would be consistent with this goal.

Goal: Form an urban environment which will provide for residential diversity and opportunity.

The Project would add to the diversity of existing residential housing types in the City by providing housing opportunities near the City's downtown in a location with multiple transit options including the Glendale Transportation Center (GTC) bus routes and Beeline Bus Routes. The Project would provide a diverse range of living units by providing 18 one-bedroom, 52 two-bedroom, and one studio unit within the City. Based on these characteristics, the Project would be consistent with this goal.

Goal: Improve the livability of the total community for all Glendale residents as expressed in living, working and shopping areas, as well as community facilities.

In addition to providing residential units, the Project site designed to include approximately 4,954 square feet of landscaped area throughout the property. Alternative transportation modes are available and in walking distance from the Project site. The residential use and design of the Project on this site will add to the overall livability of Glendale. For these reasons, the Project would be consistent with this goal.

Goal: Promote development and improvement within the community capitalizing on the location of, and access to, Glendale as adjacent to the regional core.

The Project would implement the goals of the City's General Plan by developing and improving the Project site, which currently contains a 1-story building and surface parking lot occupied by a wholesale auto parts business, in the western portion Glendale in close proximity to public transportation. Alternative transportation modes are available and within walking distance from in the Project site. The MTA and the City of Glendale presently operate bus routes along Colorado Street and Pacific Avenue. All routes serving the Project connect to additional routes and stop at the GTC, which provides access to the greater Los Angeles Metropolitan region via bus and commuter trains. The GTC also provides statewide access via Amtrak long-distance trains. The GTC is located approximately 1.25 miles south from the Project site and is accessible via San Fernando Road. As such, this Project would be consistent with this goal.

Goal: Provide for measures to prevent the loss of life, injury, and economic dislocation resulting from fire, flood, and geologic hazards.

The Project would comply with all applicable City Fire and Building Codes, thus minimizing the loss of life or injury from fire and geologic hazards. In addition, the Project site is not located in a 100-year flood zone and, therefore, is not subject to flooding hazards. As a result, the Project would be consistent with this goal.

Residential

Goal: Promote the revitalization or, if necessary, the replacement of deteriorating neighborhoods.

The Project would promote revitalization of the central portion of the Redevelopment Project area by replacing an underutilized site containing an aging commercial building with a new multifamily residential project, which would revitalize this Project site and promote the revitalization of the surrounding neighborhood in a manner that is consistent with this goal.

Goal: Support the creation of higher density residential development and alternative forms of medium and high density housing in those areas best suited from the standpoint of accessibility, current development, community organization, transportation and circulation facilities, and economic feasibility.

The Project would provide an alternative form of high density housing by constructing one studio and several one- and two-bedroom apartment units in the central portion of the San Fernando Road Corridor Redevelopment Area near multiple public transportation routes. As discussed in **Section 4.1, Aesthetics**, the residential use proposed by the Project will be complementary to and compatible with, the existing surrounding areas. The Project site is near multiple retail commercial and community amenities. As such, the Project would be consistent with this goal.

Goal: Provide opportunities for diversity in housing styles for all economic segments of the community.

The Project would add to the diversity of residential housing types in the City by providing 71 multifamily residential units; specifically, 1 studio unit, 18 one-bedroom units, and 52 two-bedroom units. For these reasons, the Project would be consistent with this goal.

Circulation

Goal: Insure that existing development is provided with adequate and safe streets.

Goal: Provide adequate streets in advance of development capable of accommodating traffic associated with proposed uses.

Development of the Project would not result in any physical changes to West Elk Avenue, and all lanes within the major arterial streets would remain the same. The Project would provide 161 parking spaces in a 2-level subterranean parking structure. Pedestrian access to the subterranean parking structure will be provided by two elevators and two staircases. The parking structure would be designed to City of

Glendale Building Codes for subterranean parking structures. Sight lines would be required according to the City of Glendale Department of Public Works standards to ensure safe entry/exit from the parking structure. For these reasons, the Project would be consistent with these goals.

Goal: Develop clusters of uses which will facilitate the development of public transportation networks, decreasing dependence on the automobile.

The Project site is in close proximity to the MTA bus lines and the City of Glendale Beeline bus lines. As such, the Project would be consistent with this goal.

Housing Element

Goal 1: A city with a wide range of housing types to meet the needs of current and future residents.

The Project would add to the diversity of residential housing types in the City by providing 71 residential units, which includes 1 studio unit, 18 one-bedroom units, and 52 two-bedroom units within the Redevelopment Project area, in additional to being in close proximity to public transportation and the range of uses in Glendale's downtown. As such, the Project would be consistent with this goal.

Goal 2: A city with high quality residential neighborhoods that are attractive and well designed.

The Project would comply with the City's design guidelines by providing a project that adds residential units near downtown Glendale designed to be compatible with surrounding neighborhoods. Redevelopment of this location would improve the Redevelopment Project area as a whole and would provide needed housing units. The Project would designate 6,138 square feet of common open space that includes the lobby, swimming pool, common areas, and a landscaped sundeck. The swimming pool area on the ground floor and the sundeck on the second floor would include furnishing, benches, and/or other seating. The balconies will provide a total of 6,035 square feet of private open space. The Project site is designed to include approximately 4,954 square feet of landscaped area throughout the property. A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be located along West Elk Avenue and within the northwestern portion of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. Based on these reasons, the Project would be consistent with this goal.

Goal 6: A city with housing that is livable and sustainable.

The Project would recycle a minimum of 50 percent of the demolition and construction debris, would incorporate trash and recycling receptacles for residents in the parking structure, would install low flow devices within the apartment units as well as water conservation techniques for the landscaping, and the Project would comply with the *Comprehensive Design Guidelines* adopted by the City, which incorporate livable community concepts by creating open space and facilitating pedestrian movement. The Project incorporates many of these concepts and the City would review the Project for consistency with the guidelines. As such, the Project would be consistent with this goal.

Circulation Element

Goal 2: Minimization of congestion, air pollution, and noise associated with motor vehicles.

The Project is located in close proximity to public transportation. Furthermore, the Project is located near designated bicycle routes that interconnect the City. These characteristics will assist in reducing motor vehicle use, consistent with this goal.

Goal 3: Reasonable access to services and goods in Glendale by a variety of transportation modes.

The Project would provide growth in an area that is served by public transportation within walking distance from nearby existing and new residential uses, existing and proposed retail, office, and medical office uses. The ICIS apartment project provides commercial space adjacent to the Project Site, while the approved CCTAN/Colorado Mixed Use Project would provide medical office uses and a restaurant counter service with limited seating. In addition, the Project would construct Americans with Disabilities Act (ADA)-compliant sidewalks and parking spaces. For these reasons, the Project would be consistent with this goal.

Goal 4: Functional and safe streetscapes that are aesthetically pleasing for both pedestrians and vehicular travel.

In general, the landscaping materials to be used would create a distinct character for the Project site by creating a visual cohesiveness throughout the streetscape. The perimeter of the Project site would be landscaped with trees, shrubs, and grasses as well as contain architectural features associated with the contemporary interpretation of a traditional style, with design elements, colors, and materials suggestive of the craftsman style architecture. A selection of canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) would be located along West Elk Avenue and within the northwestern

portion of the site and designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. As such, the Project would be consistent with this goal.

Noise Element

Goal 2: Reduce noise from nontransportation sources.

The Project would install mechanical equipment in accordance with the City's Noise Ordinance. The majority of the Project's operational-related vibration sources, such as mechanical and electrical equipment, would incorporate vibration attenuation mounts, as required by the particular equipment specifications. Therefore, operation of the Project would not increase the existing vibration levels in the immediate vicinity of the Project and vibration impacts associated with the Project would be minimal. As such, the Project would be consistent with this goal.

Goal 3: Continue incorporating noise considerations into land-use planning decisions.

The Project would be located within a 65 to 70 a-weighted decibels [dB(A)] 24-hour average Community Noise Equivalent Level (CNEL) zone as identified in the City's Noise Element. The Project would be located in the conditionally acceptable land-use compatibility designation according to the City's Noise Element. The Project would construct the residential building to the standards set forth in the *California Building Code*, which specifies that the indoor noise levels for residential living spaces not exceed 45 dB(A) CNEL. For these reasons, the Project would be consistent with this goal.

Goal 4: Enhance measures to control construction noise impacts.

The Project would conform to the *Glendale Municipal Code* by performing demolition, grading, and construction activities between the hours of 7:00 AM and 7:00 PM,[8] would incorporate best management practices (BMPs) to reduce construction noise levels, and would locate construction staging areas away from vibration and noise-sensitive land uses. For these reasons, the Project would be consistent with this Project.

Conservation and Open Space Element

Goal 12: Continue to conserve water resources and provide for the protection and improvement of water quality.

One of the requirements of the standard urban storm water mitigation plan (SUSMP) is that the Project retain on-site water runoff from the first 0.75 inches of a 24-hour rain event. The Project would be

8 Glendale Municipal Code, sec. 8.36.080, Construction on Building, Structures and Projects.

required to filter the first 0.75 inches of rainfall on site through the above-grade SUSMP planters. Prior to issuance of any grading or building permits, the City must approve the SUSMP. Preparation of the SUSMP would be incorporated as a Project design feature. The Project would install low flow water devices, such as low flow toilets and water faucets, in the apartments and water conservation irrigation systems. For these reasons, the Project would be consistent with this goal.

Consistency with San Fernando Road Corridor Redevelopment Project Plan

Goal: Improve neighborhood compatibility between industrial and adjacent residential land uses.

The Project would revitalize an underutilized area within the Redevelopment Project area. The Project site is designated as Mixed Use by the General Plan and zoned as SFMU. The Mixed Use designation permits a mix of commercial and residential uses, as well as exclusively commercial, industrial, or residential land uses. Similarly, pursuant to Section 30.14.010(B) Table 30.14-A of the Glendale Municipal Code, a mix of commercial and residential uses are permitted within the SFMU zone.[9] There are no industrial land uses adjacent to the Project site, and therefore this goal is not applicable. The residential development uses as proposed would be permitted under the existing General Plan and zoning designations. These designations demonstrate that the City of Glendale envisioned this area as a transitional area.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The identified related projects all consist of individual development projects that do not involve any site improvements that would combine to physically divide any existing community, neighborhood, or district in the San Fernando Road area of Glendale. No cumulative impacts, therefore, would result. As previously stated, Project implementation would be consistent with land uses within the Project area and compatible to its surrounding uses. It would also provide needed housing within the City of Glendale. Consequently, the incremental effect of the Project would not be cumulatively considerable and the Project's cumulative impacts would be less than significant.

9 Glendale Municipal Code, 30.14.010 (2014).

As discussed previously, implementation of the Project, on its own, would not result in land-use incompatibilities or plan inconsistencies; thus, no significant land-use impacts would occur. The nearest related project is the CCTAN/Colorado Mixed Use Project located approximately 200 feet north of the Project site at 507-525 West Colorado Street. The CCTAN/Colorado Mixed Use Project includes the development of 90 multifamily residential units, 18,000 square feet of medical space, and 1,000 square feet of commercial space. The CCTAN/Colorado Mixed Use Project was consistent with the existing zoning designation for the sites and was found to be compatible with the surrounding land uses consisting of commercial and residential projects. Development of the identified related projects would result in changes to existing land uses in the City through the conversion of low density uses to higher density uses. All identified Citywide-related projects would be reviewed for consistency with adopted land-use plans and policies by the City of Glendale. For this reason, related projects are anticipated to be consistent with applicable General Plan and Zoning Ordinances, or will be subject to an allowable exception, and further, would be subject to CEQA, mitigation requirements, and design review. Therefore, cumulative impacts to land use as a result of development conflicting with applicable land-use plans and policies would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.4 NOISE

This section of the environmental impact report (EIR) presents the results of an analysis of both existing background conditions and future noise conditions following completion of the Project. This section incorporates the findings of the Traffic Memorandum, prepared by JB & Associates and dated August 25, 2014 (see **Appendix 6.0**), in addition to the results of noise monitoring datasheets which are available in **Appendix 4.4.**

ENVIRONMENTAL SETTING

Fundamentals of Sound

Sound is mechanical energy transmitted by pressure waves through a compressible medium such as air. Noise can be defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed at which sound is created (propagation), and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written dB(A). The A-weighted sound level is measured on a logarithmic scale such that a doubling of sound energy results in a 3.0 dB(A) increase in noise level. In general, changes in a noise level less than 3.0 dB(A) are not typically noticed by the human ear.[1] Changes from 3 to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in noise. An increase greater than 5 dB(A) is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound volume. Common noise levels associated with certain activities are shown on **Figure 4.4-1, Common Noise Levels.**

Noise Terminology

Different types of scales are used to characterize the time-varying nature of sound. Applicable scales include the maximum noise level (Lmax), the equivalent noise level (Leq), and the Community Noise Equivalent Level (CNEL). Lmax is the maximum noise level measured during a specified period. Leq is the average A-weighted sound level measured over a given time interval. Leq can be measured over any

1 US Department of Transportation, Federal Highway Administration (FHWA), *Fundamentals and Abatement of Highway Traffic Noise: Textbook Training Course* (Springfield, VA: Dept. of Transportation, Federal Highway Administration, September 1980), 81.

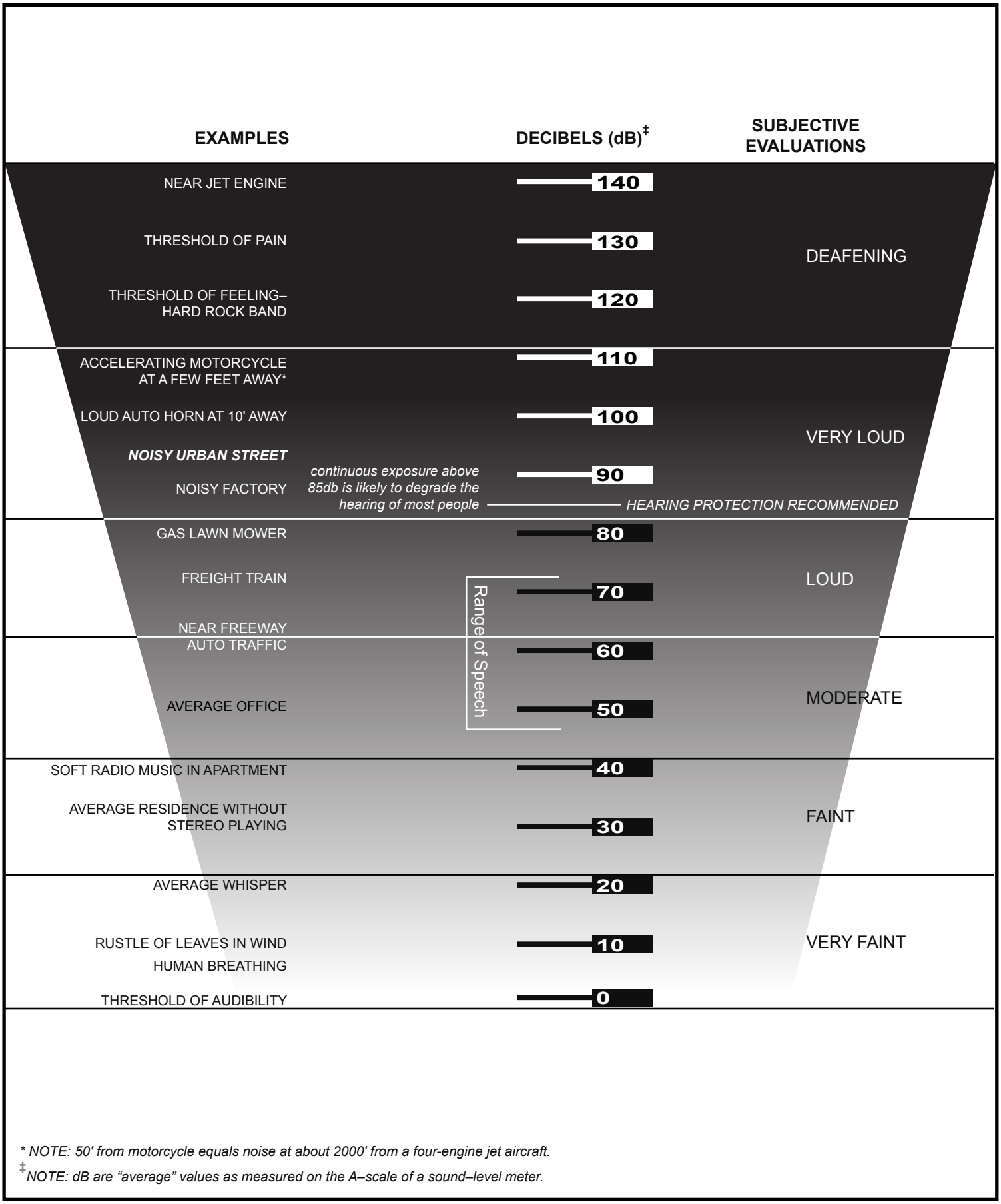
period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods. CNEL is an average A-weighted sound level measured over a 24-hour period. However, this noise scale is adjusted to account for some individuals' increased sensitivity to noise levels during the evening and nighttime hours. A CNEL noise measurement is obtained by adding 5 dB(A) to sound levels occurring during the evening, from 7:00 PM to 10:00 PM, and 10 dB(A) to sound levels occurring during the nighttime, from 10:00 PM to 7:00 AM. The 5 dB(A) and 10 dB(A) "penalties" are applied to account for increased noise sensitivity during the evening and nighttime hours. Day-night average level (Ldn) is the A-weight equivalent sound level for a 24-hour period with an additional 10 dB imposed on the equivalent sound levels for night time hours of 10:00 PM to 7:00 AM.

Table 4.4-1, Noise Descriptors, identifies various noise descriptors developed to measure sound levels over different periods of time.

Noise Barrier Attenuation

The introduction of a barrier between a noise source and a sensitive receptor redistributes the sound energy into several paths, including a diffracted path over the top of the barrier, a transmitted path through the barrier, and a reflected path directed away from the sensitive receptor. Diffraction is the bending of sound waves over the top of a barrier. The area behind the barrier in which diffraction occurs is known as a shadow zone, and sensitive receptors located in this area will experience some sound attenuation. The amount of attenuation is related to the magnitude of the diffraction angle. The diffraction angle will increase if the barrier height increases or if the distance from sensitive receptors is decreased to the barrier.

Sound also can travel through the barrier itself. The level of sound transmission through the barrier depends on factors relating to the composition of the barrier (such as its weight and stiffness), the angle of incidence of the sound, and the frequency spectrum of the sound. The rating of a material's ability to transmit noise is called transmission loss. Transmission loss is related to the ratio of the incident noise energy to the transmitted noise energy, and it is normally expressed in decibels, which represents the amount noise levels will be reduced when the sound waves pass through the material of the barrier. For example, a solid wall or berm will reduce noise levels 5 to 10 dB(A).



** NOTE: 50' from motorcycle equals noise at about 2000' from a four-engine jet aircraft.*

‡NOTE: dB are "average" values as measured on the A–scale of a sound–level meter.

FIGURE **4.4-1**

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Common Noise Levels

064-002-14

Table 4.4-1
Noise Descriptors

Term	Definition
Decibel (dB)	The unit for measuring the volume of sound, equal to 10 times the logarithm (base 10) of the ratio of the pressure of a measure sound to a reference pressure.
A-weighted decibel [dB(A)]	A sound measurement scale that adjusts the pressure of individual frequencies according to human sensitivities. The scale accounts for the fact that the region of highest sensitivity for the human ear is between 2,000 and 4,000 cycles per second (hertz, or Hz).
Equivalent sound level (Leq)	The sound level containing the same total energy as a time-varying signal over a given time period. The Leq is the value that expresses the time-averaged total energy of a fluctuating sound level. Leq can be measured over any time period, but is typically measured for 1-minute, 15-minute, 1-hour, or 24-hour periods.
Day–night average noise levels (Ldn)	The average equivalent A-weighted sound level during a 24-hour day, where the daytime noise levels occur between 7:00 AM and 10:00 PM, and the nighttime noise levels occur between 10:00 PM and 7:00 AM.
Community noise equivalent level (CNEL)	A rating of community noise exposure to all sources of sound that differentiates between daytime, evening, and nighttime noise exposure. These adjustments add 5 dB(A) for the evening (7:00 PM to 10:00 PM) and 10 dB(A) for the night (10:00 PM to 7:00 AM). The 5 dB and 10 dB penalties are applied to account for increased noise sensitivity during the evening and nighttime hours. The logarithmic effect of adding these penalties to the 1-hour Leq measurements typically results in a CNEL measurement that is within approximately 3 dB(A) of the peak-hour Leq.
sound pressure level	The force of sound on a surface area perpendicular to the direction of the sound. The sound pressure level is expressed in dB.
Ambient noise	The level of noise that is all encompassing within a given environment, usually a composite of sounds from many and varied sources near to and far from the observer. No specific source is identified in the ambient noise.

Source: California Department of Transportation, *A Technical Supplement to the Traffic Noise Analysis Protocol* (Sacramento, CA: November 2009), N51–N54.

Sound energy can also be reflected by a barrier wall. For example, sound barriers along a freeway reflect vehicle generated noises from land uses located adjacent to the freeway. The reflected sound energy would not affect the

sensitive receptor on the other side of the barrier but may affect sensitive receptors to the left and right of it.[2] Man-made or natural barriers can also attenuate sound levels, as illustrated in **Figure 4.4-2, Noise Attenuation by Barriers.** A solid wall or berm may reduce noise levels by 5 to 10 dB(A).[3]

Contemporary wood-frame construction techniques in California typically provide about a 25 dB(A) reduction in exterior to interior noise levels because of the structural means used to comply with California regulations, such as the Title 24 energy conservation standards. The minimum attenuation of exterior to interior noise provided by typical structures in California is 17 dB(A) with open windows and 25 dB(A) with closed windows.

Vibration

Vibration consists of waves transmitted through a solid medium. Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. A vibration may be a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies and are generally classified as broadband or random vibrations. The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration is often measured in terms of the peak particle velocity (PPV) in inches per second (in/sec), because it is related to the stresses that are experienced by buildings. Vibration is also measured in vibration decibels (VdB). The human threshold of perception is approximately 65 VdB. A vibration velocity of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people. Vibration levels are acceptable at approximately 85 VdB if there are an infrequent number of events per day.[4]

Vibration energy attenuates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source.[5] High-frequency vibrations reduce much more rapidly than low-frequency vibrations, so that in the far field from a source, the low frequencies tend to dominate. Soil properties also affect the propagation of vibration.

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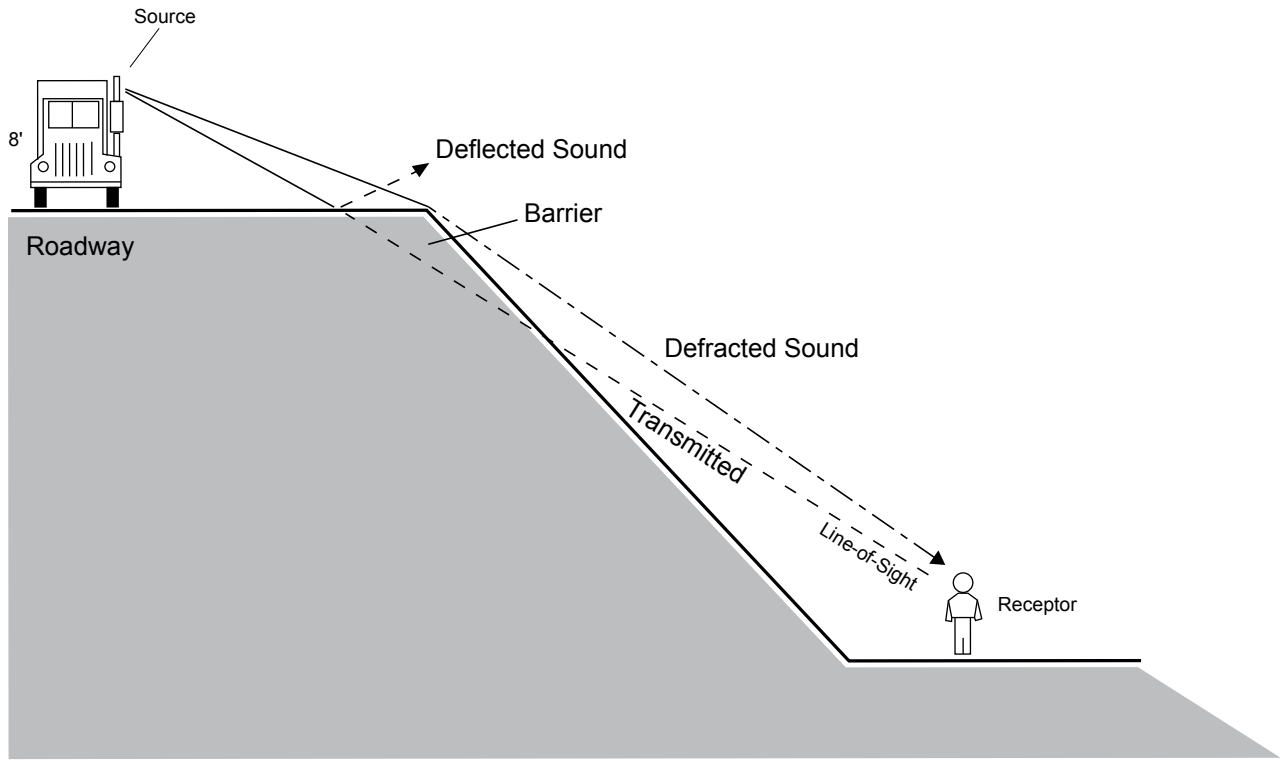
4 Carl E. Hanson, David A. Towers, and Lance D. Meister, *Transit Noise and Vibration Impact Assessment*, Report No. FTA-VA-90-1003-06 (Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment, 2006), 7–8, http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

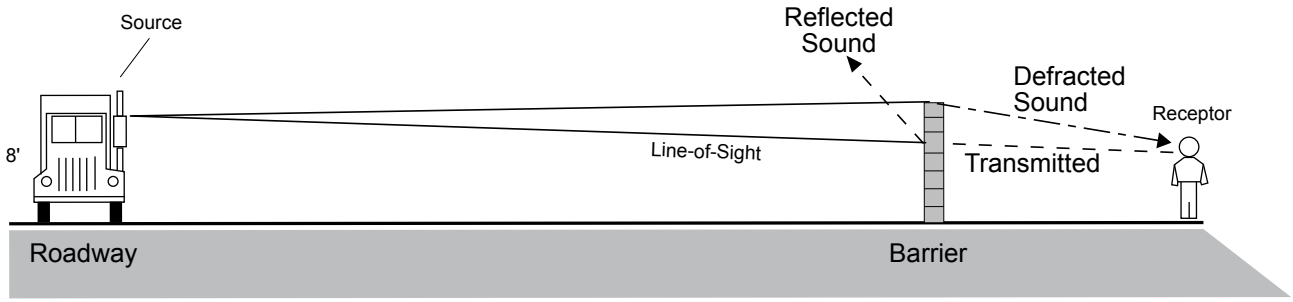
4 Carl E. Hanson, David A. Towers, and Lance D. Meister, *Transit Noise and Vibration Impact Assessment*, Report No. FTA-VA-90-1003-06 (Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment, 2006), 7–8, http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

4 Carl E. Hanson, David A. Towers, and Lance D. Meister, *Transit Noise and Vibration Impact Assessment*, Report No. FTA-VA-90-1003-06 (Washington, DC: U.S. Department of Transportation, Federal Transit Administration, Office of Planning and Environment, 2006), 7–8, http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf.

5 California Department of Transportation, *Transportation Related Earthborne Vibrations* (2002), 5.



"Barrier Effect" Resulting from Differences in Elevation.



"Barrier Effect" Resulting from Typical Soundwall.

FIGURE **4.4-2**

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Noise Attenuation by Barriers

064-002-14

When groundborne vibration interacts with a building, there is usually a ground-to-foundation coupling loss, but the vibration can also be amplified by the structural resonances of the walls and floors.[6] Vibration in buildings is typically perceived as rattling of windows or of items on shelves, or as the motion of building surfaces.

Groundborne vibration is generally limited to areas within a few hundred feet of certain types of construction activities, especially pile driving. Road vehicles rarely create enough groundborne vibration to be perceptible to humans unless the road surface is poorly maintained and there are potholes or bumps.[7] If traffic, typically heavy trucks, induces perceptible vibration in buildings, such as window rattling or shaking of small loose items, then it is most likely an effect of low-frequency airborne noise or ground characteristics. Human annoyance by vibration is related to the vibration energy and the number and duration of events, as well as the setting in which the person experiences the vibration. As discussed in the previous paragraph, vibration can be amplified by the structural resonances of the walls and floors of buildings. The more the events or the greater the duration, the more annoying it will be to humans. **Figure 4.4-3, Typical Levels of Groundborne Vibration,** identifies typical groundborne vibration levels.

Sensitive Receptors

Some land uses are recognized as being more sensitive than others to noise levels and vibration. Residences, motels and hotels, schools, libraries, houses of worship, hospitals, nursing homes, auditoriums, parks, and outdoor recreation areas are generally more sensitive to noise and vibration than are commercial and industrial land uses. Existing land uses surrounding the Project site include multifamily residences adjacent to the west and east, and single and multifamily residences south of W. Elk Avenue.

The primary noise sources affecting sensitive receptors (homes) in the area are traffic on W. Colorado Street, S. Pacific Avenue, and W. Elk Avenue. Some commercial, medical office, and auto repair shops are also identified as noise contributors, although such sources have not generally been identified as significant noise problems.

6 Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment* (2006), 7-1, 7-2.
7 Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006), 7-9.

Existing Noise Conditions

The existing ambient noise environment in the Project site was determined by conducting noise measurements. Noise monitoring was conducted over 20-minute intervals with a Larson Davis 831 Sound Level Meter. The ambient noise environment levels are provided in **Table 4.4-2, Noise Measurements in Project Vicinity**. As shown, average ambient noise levels ranged from 61.1 dB(A) to 64.6 dB(A) along W. Elk Avenue.

Table 4.4-2
Noise Measurements in Project Vicinity

Roadway Segment	Leq [dB(A)]
W. Elk Avenue between San Fernando Road and S. Pacific Avenue	61.1
Corner of W. Elk Avenue and S. Pacific Avenue	64.6

*Source: Refer to **Appendix 4.4** for modeling results.*
Note: dB(A) = A-weighted decibels.

Existing Vibration Conditions

The primary source of existing groundbourne vibration in the vicinity of the Project site is vehicle traffic on W. Elk Avenue, S, Pacific Avenue, and W. Colorado Street. According to the Federal Transit Administration (FTA), typical road traffic-induced vibration levels are unlikely to be perceptible by people. In part, FTA indicated that "it is unusual for vibration from traffic including buses and trucks to be perceptible, even in a location close to major roadways." Therefore, based on FTA published vibration data, the existing ground vibration environment in the Project vicinity would be below the perceptible levels. Trucks and buses typically generate vibration velocity levels of approximately 63 VdB (at 50 feet distance), and these levels could reach 72 VdB when trucks and buses pass over bumps in the road.

REGULATORY SETTING

City of Glendale General Plan Noise Element

The City of Glendale General Plan Noise Element establishes noise criteria for the various land uses throughout the City.[8] **Figure 4.4-4, Land Use Compatibility to Noise**, identifies the acceptable limit of noise exposure for various land-use categories within the City.

8 City of Glendale*, General Plan*, "Noise Element" (2007).

HUMAN/ STRUCTURAL RESPONSE	PPV AMPLITUDE IN INCHES PER SECOND [1]	VELOCITY LEVEL IN VdB	RMS VELOCITY AMPLITUDE IN INCHES PER SECOND [2]	TYPICAL SOURCES: EFFECT 50 FEET FROM SOURCE
THRESHOLD, MINOR COSMETIC DAMAGE TO FRAGILE BUILDINGS	0.4	100	0.1	BLASTING FROM CONSTRUCTION PROJECTS
DIFFICULTY WITH TASKS SUCH AS READING A VDT MONITOR/TV	0.1264	90	0.0316	BULLDOZER AND OTHER HEAVY-TRACKED CONSTRUCTION EQUIPMENT
RESIDENTIAL ANNOYANCE, INFREQUENT EVENTS (E.G., COMMERCIAL RAIL)	0.04	80	0.01	COMMUTER RAIL, UPPER RANGE RAPID TRANSIT, UPPER RANGE
RESIDENTIAL ANNOYANCE, FREQUENT EVENTS (E.G., RAPID TRANSIT)	0.01264	70	0.00316	COMMUTER RAIL, TYPICAL BUS OR TRUCK OVER BUMP RAPID TRANSIT, TYPICAL
LIMIT FOR VIBRATION-SENSITIVE EQUIPMENT				BUS OR TRUCK, TYPICAL
APPROXIMATE THRESHOLD FOR HUMAN PERCEPTION OF VIBRATION	0.004	60	0.001	NEAR FREEWAY AUTO TRAFFIC
AVERAGE RESIDENCE WITHOUT STEREO PLAYING	0.00126	50	0.000316	TYPICAL GROUND VIBRATION
AVERAGE WHISPER				

[1] PPV is typically a factor 1.7 to 6 times greater than RMS vibration velocity. A factor of 4 was used to calculate noise levels.

[2] Vibration levels in terms of velocity levels are defined as: $V=20 \times \log_{10} (a/r)$
V=velocity levels in decibels
a=RMS velocity amplitude
r=reference amplitude (accepted reference quantities for vibration velocity are 1×10^{-6} inches/second in the United States)

FIGURE **4.4-3**

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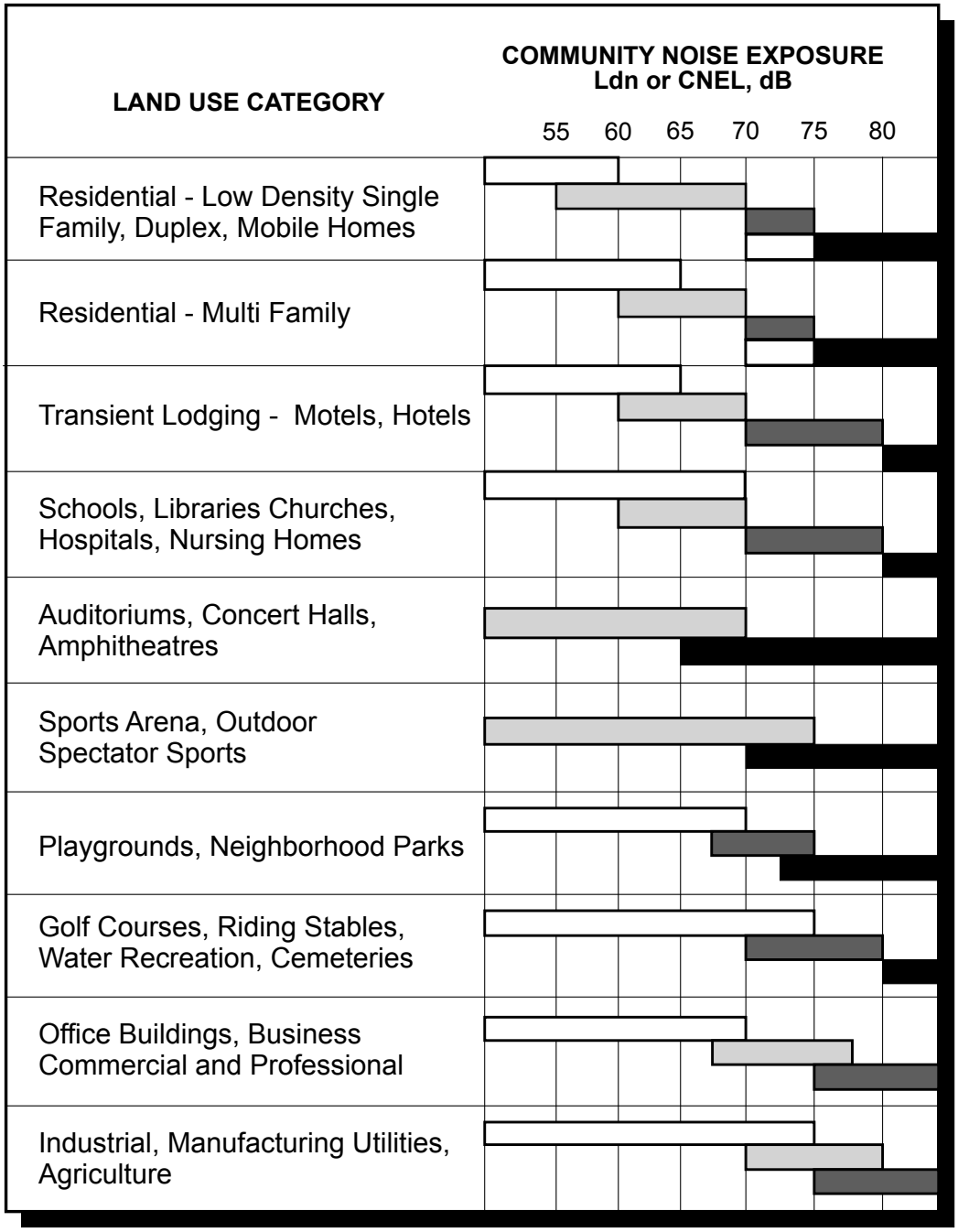
Typical Levels of Groundborne Vibration

064-002-14



NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

NORMALLY UNACCEPTABLE
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise reduction features included in the design.

CLEARLY UNACCEPTABLE
New construction or development should generally not be undertaken.

SOURCE: California Governor's Office of Planning and Research, State of California General Plan Guidelines, Appendix C: Guidelines for the Preparation and Content of Noise Elements of the General Plan, October 2003.

FIGURE **4.4-4**

Meridian Consultants

Land Use Compatibility to Noise

064-002-14

Noise exposure for multifamily uses is "normally acceptable" when the CNEL at exterior residential locations is equal to or below 65 dB(A), "conditionally acceptable" when the CNEL is between 60 to 70 dB(A), and "normally unacceptable" when the CNEL exceeds 70 dB(A). These guidelines apply to noise sources such as vehicular traffic, aircraft, and rail movements. The Noise Element established an interior noise level standard for multifamily uses of 45 dB(A) CNEL or less.

Glendale Noise Ordinance

Noise standards for specific land uses are identified in the City of Glendale's Noise Ordinance, which is located in Chapter 8.36, Section 8.36.040 of the Municipal Code. Under Section 8.36.040 of the *Noise Ordinance*, exterior and interior noise is regulated by reference to "presumed noise standards," which are presented in **Table 4.4-3, Interior and Exterior Presumed Noise Standards**. Under Section 8.36.050 of the *Noise Ordinance*, where noise levels are below the presumed noise standards, the actual ambient noise level controls, and any noise more than 5 dB(A) above the actual ambient noise level is considered a violation of the *Noise Ordinance*. Where the actual ambient noise level exceeds the presumed noise standard, the actual ambient noise level is used, and any noise more than 5 dB(A) above the actual ambient noise level is considered a violation of the *Noise Ordinance*.

However, under the *Noise Ordinance*, the actual ambient noise levels are not allowed to exceed the presumed noise level by more than 5 dB(A).

Table 4.4-3
Interior and Exterior Presumed Noise Standards

Land Use Categories		Noise Standards	
Category	**Uses**	**Interior CNEL**	**Exterior CNEL**
Residential	Single Family	45[1]	65[2]
	Multifamily	45[1]	65[3]
	Residential within Mixed Use	45[1]	-
Commercial	Hotel, Motel, Transient, Lodging	45[1]	-
Institutional	Hospital, School, Church, Library	45	-
Open Space	Parks[4]	-	65

Source: City of Glendale General Plan Noise Element, May 2007.
1. Applies to the indoor environment excluding bathrooms, toilets, closets and corridors
2. Applies to the outdoor environment limited to the private yard of single family residences (normally the rear yard).
3. Applies to the patio area where there is an expectation of privacy (i.e., not a patio area which also serves as, or is adjacent to, the primary entrance to the unit).
4. Only applies to parks where peace and quiet are determined to be of prime importance, such as hillside open space areas to the public. Generally would not apply to urban parks or active-use parks.

The City of Glendale does not have regulations that establish maximum construction noise levels. However, Section 8.36.290(K) provides an exemption from the *Noise Ordinance* for any activity, operation, or noise, which cannot be brought into compliance (with the *Noise Ordinance*) because it is technically infeasible to do so. "Technical infeasibility" for the purpose of this section means that noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or any other noise reduction devices or techniques during the operation of the equipment.

Section 8.36.210 of the *Noise Ordinance* provides that vibration created by the operation of any device would be a violation of City standards if such vibration were above the vibration perception threshold of an individual at or beyond the property boundary of a source on private property. For sources on a public space or public right-of-way, a violation would occur if the vibration perception threshold of an individual were exceeded at a distance of 150 feet from the source. The *Noise Ordinance* does not define the level of vibration that is deemed perceptible by an individual and does not establish maximum allowable vibration levels.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant noise and vibration impact if it would:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such plan has not been adopted, within 2 miles of a public airport or public use airport, would expose people residing or working in the project area to excessive noise levels (issue is addressed in **Section 6.0, Effects Not Found to Be Significant**)

- For a project within the vicinity of a private airstrip would the project expose people residing or working in the project area to excessive noise levels (issue is addressed in **Section 6.0, Effects Not Found to Be Significant**)

The State CEQA Guidelines do not provide a definition for "substantial increase" in noise and they do not provide a threshold of significance for potential noise or vibration impacts. Therefore, the following thresholds of significance were developed for this noise analysis based on the *General Plan Noise Element* and *Noise Ordinance* discussed previously in this EIR section. These thresholds apply to both Project impacts and cumulative impacts.

Noise

On-Site Noise Thresholds

As shown in **Figure 4.4-4,** exterior noise levels of up to 65 dB(A) CNEL are considered "normally acceptable" for multifamily uses, while noise levels between 60 dB(A) and 70 dB(A) CNEL are considered "conditionally acceptable" and noise levels exceeding 70 dB(A) CNEL are considered normally unacceptable. The *Noise Element* does establish an interior noise standard for multifamily residential uses of 45 dB(A) CNEL.

Off-Site Noise Thresholds

Off-site noise thresholds consider the following: the City's Noise Compatibility Criteria, community response to changes in noise levels, and CEQA standards. As stated earlier, changes in a noise level of less than 3 dB(A) are not typically noticed by the human ear. Some individuals who are extremely sensitive to changes in noise may notice changes from 3 to 5 dB(A). Based on this information, the following thresholds have been established for this analysis:

- An increase of 3 dB(A) or greater in traffic noise level that occurs due to Project-related activities would be significant if the resulting noise levels would cause the City's noise compatibility thresholds for "normally acceptable" exterior or interior noise levels to be exceeded, or result in a 3 dB(A) increase in noise to a land use experiencing levels above the City's noise compatibility threshold for "normally acceptable." A noise level increase of less than 3 dB(A) under either of the previously described scenarios is not considered to be significant.

- An increase of 5 dB(A) or less in traffic noise level that occurs from Project-related activities would be considered not significant if the resulting noise levels remain below the "acceptable" thresholds established by the City. Increases in traffic noise greater than 5 dB(A) would be considered to be significant even if the resulting noise levels are below City standards.

- Stationary noise sources proposed as part of the Project that could result in increases in noise levels at adjacent land uses that exceed City standards would be considered significant.

Vibration

The City's *Municipal Code* states that a violation of City standards would occur if the operation of a device creates a vibration above the vibration perception threshold. A numerical threshold to identify the point at which a vibration impact is deemed perceptible is not identified in the City's *Municipal Code*. In the absence of significance thresholds for vibration from construction and operations, the FTA identifies a maximum acceptable level threshold of 65 VdB for buildings where low ambient vibration is essential for interior operations (such as hospitals and recording studios), 72 VdB for residences and buildings where people normally sleep, and 75 VdB for institutional land uses with primary daytime use (such as churches and schools).

Methodology

Construction

Construction of the proposed Project would require demolition, site clearing, grading, building construction, and building finishing activities. These activities typically involve the use of heavy equipment, such as tractors, dozers, and cranes. While construction would be temporary, the use of these types of equipment would generate both steady state and episodic noise that would be heard both on and off the project site.

Construction Noise

The construction noise model is based on information obtained from the FTA Roadway Noise Construction Model (RNCM). The FHWA has compiled data on noise-generating characteristics of specific types of construction equipment.[9]

The dominant source of noise from most construction equipment is engine sound, often without sufficient muffling. Construction equipment can be considered to operate in two modes: stationary and mobile. Stationary equipment operates in one location for one or more days at a time, with either a fixed power operation (e.g., pumps, generators, compressors) or a variable power operation (e.g., pile drivers, pavement breakers). Mobile equipment moves around the construction site (e.g., bulldozers, loaders) or to and from the project site (e.g., trucks).

9 FHWA, Roadway Noise Construction Model (RCNM), Software Version 1.1 (December 8, 2008).

Noise levels generated by heavy equipment can range from approximately 70 dB(A) to noise levels in excess of 100 dB(A) when measured at a distance of 50 feet from the noise source. The noise levels diminish with distance at a rate of approximately 6.0 to 7.5 dB(A) per doubling of distance for acoustically hard and soft sites, respectively. An example of an acoustically hard site would be a parking lot, while an acoustically soft site would be a park. Assuming an acoustically hard site, a noise level of 75 dB(A) measured at 50 feet from the noise source would be reduced to 69 dB(A) at 100 feet and to 63 dB(A) at 200 feet.

Construction noise levels at sensitive receptors would vary based on the location of construction activity and the number of equipment in operation. The Project would be constructed in phases with various types of equipment used at any given time. These activities typically involve the use of heavy equipment such as graders, dozers, backhoes, water trucks, excavators, cement and mortar mixes, rollers, pavers and paving equipment, forklifts, generators, and welders. The equipment would generate both steady state and episodic noise that would be heard both on and off the project site. The usage factor is the percentage of time that particular equipment is anticipated to be in full power operation during a typical construction hour during the day.

In order to identify the maximum construction noise impacts, under a reasonable worst-case scenario, it is assumed that many pieces of heavy-duty equipment would operate simultaneously in close proximity to noise sensitive receptors. In a realistic scenario, all construction equipment would not operate at the same time nor would their proximity be close to each other.

Construction Vibration

Construction-related groundborne vibration impacts were evaluated using the FTA's *Transit Noise and Vibration Impact Assessment* guidance document.[10] The potential vibration source in the project site includes construction equipment in operation during Project construction. Groundborne vibration impacts were evaluated by identifying potential vibration sources and estimating the vibration levels at the affected receptor. Vibration impacts were evaluated with respect to the established significance thresholds discussed later in this section.

10 FTA, *Transit Noise and Vibration Impact Assessment* (2006).

Operation

Roadway Noise

According to data collected by Caltrans, California automobile noise is 0.8 to 1.0 dB(A) louder than national levels, while medium and heavy truck noise is 0.3 to 3.0 dB(A) quieter than national levels.[11] According to the traffic memo for the Project (see **Appendix 6.0**), the Project would result in 455 net daily trips when compared to existing trip generation for the wholesale auto parts business. Based on trips generated, noise levels associated with existing uses were then compared to noise levels associated with the Project.

Stationary Noise

Stationary point-source noise impacts were evaluated by identifying the noise levels generated by outdoor stationary noise sources such as rooftop mechanical equipment, outdoor recreational areas, parking areas, etc.; estimating the noise level from each noise source at surrounding residential property locations; and comparing such noise levels to ambient noise levels to determine significance. Operational noise levels were calculated for the hourly Leq from each noise source to surrounding sensitive receptors based on past field monitoring of similar uses conducted by Meridian Consultants or published noise references. Noise levels were then compared against the applicable exterior noise threshold.

Operational Vibration

The majority of the Project's operational-related vibration sources, such as mechanical and electrical equipment, would incorporate vibration attenuation mounts, as required by the particular equipment specifications. Therefore, operation of the Project would not increase the existing vibration levels in the immediate vicinity of the Project and, as such, vibration impacts associated with the Project would be minimal. Therefore, the ground borne vibration analysis is limited to Project-related construction activities

11 Rudolf W. Hendriks, California Vehicle Noise Emission Levels, NTIS, FHWA/CA/TL-87/03 (1987).

Impact Analysis

Thresholds: **Would result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Vehicle Noise

Vehicular noise can potentially affect the Project site, as well as land uses located along the studied roadway system. As discussed previously, an increase in CNEL of 3 dB(A) represents the point at which only the most sensitive individuals notice a change in noise levels. The existing uses on the Project site generate traffic and traffic noise under existing conditions. Existing average daily trips along Colorado Street, west of S. Pacific Avenue, total approximately 28,000 trips and along S. Pacific Avenue, south of Colorado Street, total approximately 16,000 trips.[12] A doubling of roadway volumes would result in an increase in vehicle generated noise by 3 dB(A). The Project is forecast to result in an increase of 455 daily trips that is approximately 2 percent increase along Colorado Street and 3 percent increase of existing volumes along S. Pacific Avenue. Since the Project would not result in a doubling of traffic volumes along adjacent roadways, the roadway noise levels would not increase by 3 dB(A) or greater and land uses located along Colorado Street and S. Pacific Avenue would not be affected by any additional traffic noise. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Parking

The Project would include a total of 161 parking spaces located within a two-level subterranean parking structure. The subterranean parking garage would be accessible from W. Elk Avenue. In general, noise associated with parking structures is not of a sufficient volume to exceed community standards based on the time-weighted CNEL scale. However, parking structures can be a source of annoyance due to automobile engine start-ups and acceleration, the activation of car alarms, tire squealing, and door slamming. When parking structures are above ground and not fully contained within structures, noise

12 City of Glendale, General Plan Noise Element: Technical Appendix, Existing Traffic Noise Contours (2005).

from these sources can often reach between 50 and 75 dBA at a distance of 50 feet from the structure. Since the Project's parking would be in an enclosed subterranean garage, noise from sources related to parking would not generally effect nearby sensitive receptors.

Estimates of the maximum noise levels associated with parking lot activities are presented in **Table 4.4-4, Maximum Noise Levels Generated by Parking Lots**. These levels are based on numerous measurements conducted by Meridian Consultants. The noise levels presented are for a distance of 50 feet from the source and are the maximum noise level generated. A range is provided to reflect the variability of noise generated by various automobile types and driving styles.

Table 4.4-4
Maximum Noise Levels Generated by Parking Lots

Parking Structure Event	Peak Noise Levels at 50 Feet (dB[A])
Door slamming	60–70
Car alarms	65–75
Engine start-ups	60–70
Tire squeals	50–70
Car pass-bys	55–70

Due to the level of traffic noise along W. Elk Avenue south of the Project site and W. Colorado Street on the northern side of the site, normal daytime parking structure average noise levels would not likely be audible due to the masking of noise by door slamming, car alarms, engine start-ups, tire squeals, or car pass-bys. Furthermore, all floors and walls would conform to California Building Code, which regulates the materials and design requirements of all buildings in the State of California. Section 1207.1, Sound Transmission, of the California Building Code states walls, floors, and ceilings separating dwelling units from each other or from the public shall have a sound transmission class (STC) of not less than 50 (45 if field tested) for airborne noise when tested.[13] The new construction standards would reduce interior noise by a minimum of 20 dB(A). Such provisions would further reduce both short-term and long-term noise levels generated within the subterranean parking structure. As such, on-site parking structure noise impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

13 California Building Code, sec. 1207.2, Air-borne sound (2013).

Level of Significance After Mitigation: Less than significant.

Sweepers

Other noise sources that may be associated with the parking structure areas include the use of sweepers within the garage during the early morning or late evening hours. Noise levels generated by sweepers are generally higher than parking lot noise associated with automobile activities. Sweepers can generate average noise levels of 68 dB(A) at 50 feet for normal sweeping activities. The noise from sweepers is intermittent and would not cause an increase in long-term noise of more than 3 dB(A) over the time-weighted CNEL, and therefore would not be significant from that perspective. However, the peak sound levels generated by the sweepers could exceed the single noise event threshold for on-site residences. Depending on the timing of operations, this noise source would result in significant noise impacts during quieter morning and evening periods, and would exceed the 65 dB(A) threshold for exterior uses at receptor locations.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The following mitigation measure is provided to reduce noise levels associated with street sweeper operations to acceptable levels during the early morning and late evening periods:

MM 4.4-1 On-site sweeper operations shall be restricted to between the hours of 7:00 AM and 10:00 PM.

Level of Significance After Mitigation: Less than significant.

Residential On-Site Development

Future residents located on the Project site, as well as off-site uses, including nearby sensitive receptors, may experience noise due to an increase in human activity within the area from people living on the premises and utilizing the on-site amenities including common areas. Potential residential-type noise sources include people talking, doors slamming, stereos, and other noises associated with human activity. These noise sources are not unique and generally contribute to the ambient noise levels experienced in all residential areas. Noise levels for residential areas are typically between 48 to 52 dB(A) CNEL. Overall, the noise generated by the Project's residential land uses would not exceed the City of Glendale's compatibility thresholds and is considered to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

On-Site Roadway Noise

As shown in **Table 4.4-2,** existing exterior nose levels in the Project vicinity range from 61.1 dB(A) to 64.6 dB(A). These noise levels are not uncommon for a typical urban setting. As previously mentioned, the Project is forecast to result in 455 additional daily trips. On-site roadway noise as a result of the Project would be similar to existing conditions, since the slight increase in trips generated would not be enough to noticeably increase ambient noise levels. However, as shown on the 2030 Roadway Noise Contour exhibits,[14] the exterior 2030 noise contours for the Project site would be greater than 65 dB(A) CNEL and could result in interior noise levels above the 55 dB(A) threshold during the daytime and 45 dB(A) threshold during the nighttime. The Project includes private outside patios or balconies for each unit. Noise levels would be greater than the City's exterior noise standard of 65 dB(A) for patio/balcony areas, and exterior noise impacts would be potentially significant.

The Project would be constructed with according to the 2014 Glendale Building and Safety Code which requires new construction to meet a 45 CNEL noise standard. Average sound transmission loss between the exterior and interior environment is a minimum of 20 dB(A) with windows closed. Since ambient noise levels range from 61.1 db(A) to 64.4 db(A) in the vicinity of the Project, interior noise levels would be between 41.1 db(A) to 44.4 db(A). Therefore, interior noise levels in the apartment building would not be above the interior threshold of 45 dB(A) CNEL, and interior noise impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant (interior noise levels). Potentially significant (exterior noise levels).

Mitigation Measures: The following mitigation measure is provided to reduce on-site noise levels to acceptable levels:

4.4.2 Prior to the issuance of occupancy permits, noise sensitive residential land uses shall be designed so that interior noise levels attributable to exterior sources do not exceed 55 dB(A) during the daytime and 45 dB(A) during nighttime when doors and windows are closed. An acoustical analysis of the noise insulation effectiveness of proposed construction shall be required and documented during permit review, showing that the building materials and construction specifications are adequate to meet the interior

14 City of Glendale, *General Plan,* "Noise Element" (2007) Exhibits 1 and 2.

noise standard. Examples of building materials and construction specifications that may be used to meet the interior noise standard include but are not limited to the following:

- Windows shall be doubled paned, mounted in low air filtration rate frames, and have a minimum sound transmission coefficient rating of 30 or greater
- Air conditioning units may be provided to allow for windows to remain closed
- Roof or attic vents facing southward shall be baffled

Level of Significance After Mitigation: Less than significant (interior). Significant and unavoidable (exterior) as patios and exterior useable areas (e.g., balconies) would still be exposed to exterior noise levels above the 65 dB(A) threshold for residential uses.

Threshold: **Would result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**

Construction Vibration

Ground vibrations from construction activities very rarely reach the levels that can damage structures, but they can achieve the audible range and be felt in buildings close to the site. The primary and most intensive vibration source associated with the development of the Project would be the use of heavy construction equipment during site preparation/grading activities.

Vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Ground vibrations from construction activities rarely reach the levels that can damage structures, but they can achieve the audible and perceptible ranges in buildings close to the construction site. **Table 4.4-5, Vibration Source Levels for Construction Equipment**, lists vibration source levels for construction equipment.

Table 4.4-5
Vibration Source Levels for Construction Equipment

Equipment	VdB at 25 Feet
Excavator	80
Backhoe	80
Loaded truck	86
Roller	74
Jackhammer	79
Small bulldozer	58

Source: Office of Planning and Environment, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, FTA-VA-90-1003-06 (May 2006, 12-9).

As shown in **Table 4.4-5**, loaded trucks are capable of producing approximately 86 VdB at 25 feet, or 92 VdB at 15 feet which is the approximate distance to multifamily uses to the west and east of the site. This would exceed the threshold of 80 VdB for residences and buildings where people normally sleep. Land uses surrounding the Project site consist mostly of residential and commercial uses. High noise-producing (and vibration-producing) activities during construction would be scheduled to occur between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses. Nonetheless, potential impacts due to vibration would be considered to be significant.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The following mitigation measures are provided to reduce significant vibration impacts due to construction equipment:

MM 4.4-3 Demolition, earthmoving, and ground-impacting operations shall be conducted so as not to occur in the same period.

MM 4.4-4 Select demolition method to minimize vibration where possible (e.g., sawing masonry into sections rather than demolishing it by pavement breakers).

MM 4.4-5 Operate earthmoving equipment on the construction site as far away from vibration sensitive sites as possible.

Level of Significance After Mitigation: Significant and unavoidable.

Threshold: **Would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**

As described in **Section 3.0, Project Description**, Project construction is anticipated to last approximately 18 months and is expected to commence in mid-2015. The Project would be constructed in three phases: (1) demolition; (2) Site preparation/excavation; and (3) construction of the new building and site improvements.

Equipment used during the construction phases would generate both steady state and episodic noise that would be heard both on and off the Project site. Noise levels generated during construction would primarily affect the commercial and residential uses adjacent to the Project site. The U.S. Department of Transportation has compiled data regarding the noise generating characteristics of specific types of construction equipment. This data is presented in **Figure 4.4-5, Noise Levels of Typical Construction Equipment**. As shown, noise levels generated by heavy equipment can range from approximately 73 dB(A) to noise levels in excess of 80 dB(A) when measured at 50 feet.

Construction activities associated with the Project would, on average, occur at approximately 25 feet from the existing residential uses. Most construction activities would occur at a distance greater than 25 feet from a sensitive receptor. Noise levels generated during each of the Project phases are presented in **Table 4.4-6, Typical Maximum Noise Levels for Construction Phases**. Equipment estimates used for the analysis for demolition, grading, and building construction noise levels are representative of worse-case conditions, since it is very unlikely that all the equipment contained on site would operate simultaneously. As presented, potential construction-related noise impacts are considered significant due to exceeding the noise threshold of 65 dB(A) for residential and 70 dB(A) for commercial areas, as allowed by the Glendale Municipal Code.

Table 4.4-6
Typical Maximum Noise Levels for Construction Phases

	Approximate Leq dBA Without Noise Attenuation			
Construction Phase	**25 Feet**	**50 Feet**	**100 Feet**	**200 Feet**
Demolition	92	86	80	74
Site Preparation	88	82	76	70
Grading	93	87	81	75
Building Construction	94	88	82	76
Architectural Coating	88	82	76	70

Source: U.S Department of Transportation, Construction Noise Handbook, Chapter 9.0, (August 2006).

In addition to equipment-generated noise associated with construction activities, construction traffic would generate noise along access routes to the proposed development areas. The major pieces of heavy equipment would be moved onto the development only one time for each construction activity (i.e., demolition, grading). In addition, daily transportation of construction workers and the hauling of materials both on and off the Project site are expected to cause increases in noise levels along study area roadways, although noise levels from such trips would be less than peak-hour noise levels generated by Project trips during Project operation. Average daily trips associated with construction activities would not result in a doubling of trip volumes along study area roadways. Given that it takes a doubling of average daily trips on roadways to increase noise by 3 dB(A), the noise level increases associated with construction vehicle trips along major arterials in the City of Glendale would be less than 3 dB(A), and potential impacts would be less than significant.

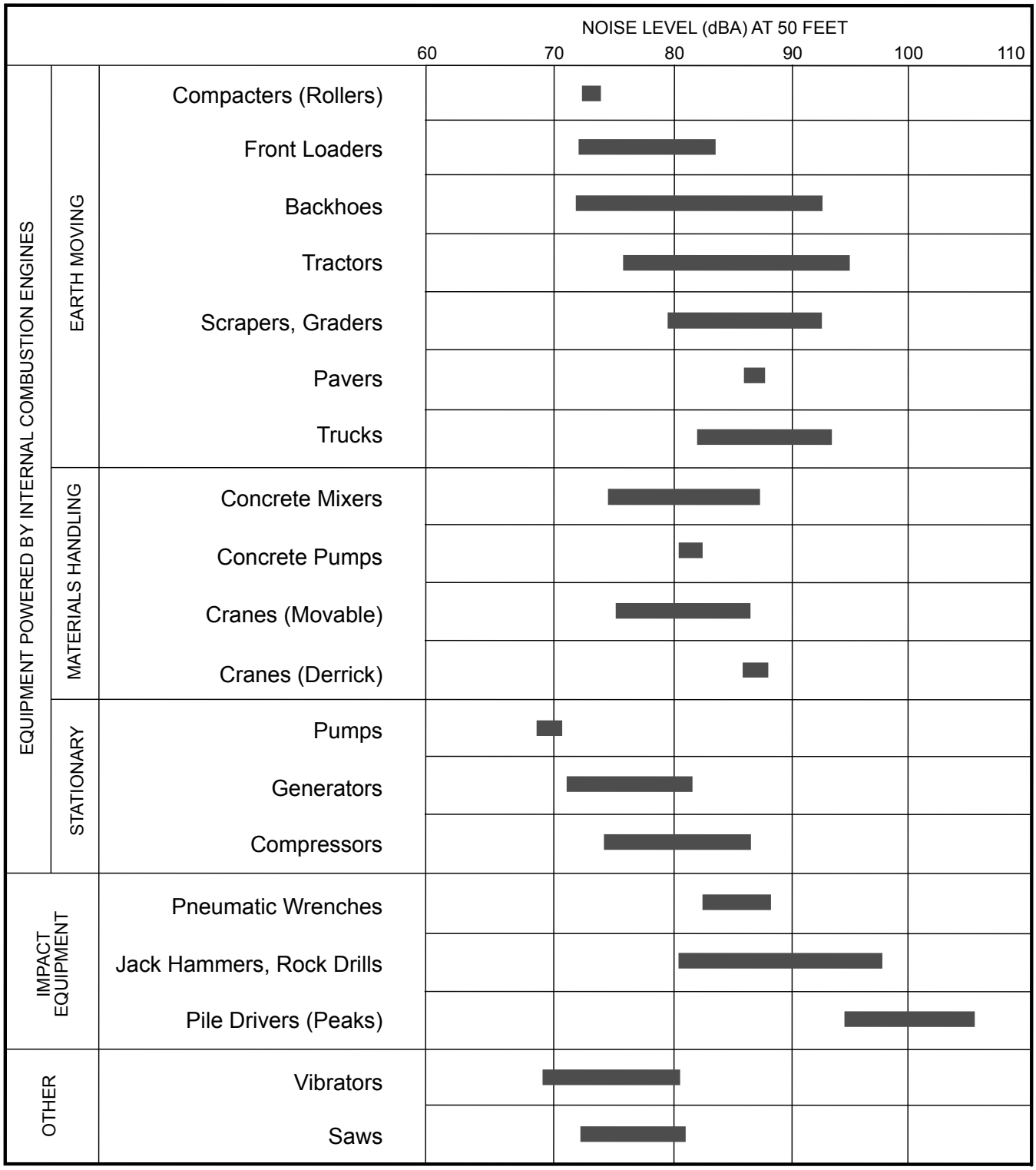
Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The following mitigation measures are provided to reduce significant noise impacts due to construction equipment:

MM 4.4-6 All construction activity within the City shall be conducted in accordance with Section 8.36.080, construction on buildings, structures and projects, of the *City of Glendale Municipal Code*.

MM 4.4-7 The following construction best management practices (BMPs) shall be implemented to reduce construction noise levels:

- Ensure that construction equipment is properly muffled according to industry standards and be in good working condition.
- Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.
- Schedule high noise-producing activities between the hours of 7:00 AM and 5:00 PM to minimize disruption on sensitive uses.
- Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, temporary noise barriers or noise blankets around stationary construction noise sources.
- Use electric air compressors and similar power tools rather than diesel equipment, where feasible.
- Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than 30 minutes.



Note: Based on limited available data samples.

SOURCE: United States Environmental Protection Agency, 1971, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," NTID 300-1.

FIGURE **4.4-5**

Meridian Consultants

Noise Levels of Typical Construction Equipment

064-002-14

- Construction hours, allowable workdays, and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow for surrounding owners to contact the job superintendent. If the City or the job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the reporting party.

MM 4.4-8 Construction staging areas along with the operation of earthmoving equipment within the Project area shall be located as far away from vibration-and noise-sensitive sites as possible.

Level of Significance After Mitigation: Although the mitigation measures identified would reduce noise levels to the maximum extent feasible, impacts during construction would remain significant and unavoidable.

Cumulative Impacts

For purposes of this analysis, development of the related projects provided in **Table 4.0-1, Related Projects**, in **Section 4.0**, **Environmental Impact Analysis**, will be considered to contribute to cumulative noise impacts. By definition, noise is a localized phenomenon, and drastically reduces as distance from the source increases. Consequently, only projects and growth in the general area of the Project site would contribute to cumulative noise impacts.

Thresholds: **Would result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.**

Would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Cumulative development from related projects would not result in a cumulative impact in terms of a substantial permanent increase in ambient noise levels. A substantial permanent increase is most likely to originate from an increase in noise levels due to roadway traffic. For the purposes of this analysis, an increase of 5 dB(A) at any roadway location is considered a significant impact, and if the resulting noise level would exceed the land use compatibility criteria, then an increase of 3 dB(A) is considered significant. The estimated 2030 traffic volumes along W. Colorado Street west of S. Pacific Avenue would

be 29,000 trips and along S. Pacific Avenue south of W. Colorado Street would be 18,000 trips.[15] Traffic volumes in 2030 would increase by approximately 1,000 trips along W. Colorado Street and approximately 2,000 trips along S. Pacific Avenue when compared to existing traffic volumes. Since the 2030 traffic volumes would not result in a doubling of traffic volumes over existing conditions, cumulative impacts would be less than significant. In addition, the Project's contribution to cumulative noise level increases would be less than 3 dB(A). Overall, the Project's contribution would not be considered to be cumulatively considerable and would be less than significant.

With regard to stationary sources, a cumulatively significant impact could result from cumulative development. The major stationary sources of noise that would be introduced in the area by related projects would include parking structures and sweeper operations. Since these projects would be required to adhere to City of Glendale noise standards, all the stationary sources would be required to provide shielding or other noise abatement measures so as not to cause a substantial increase in ambient noise levels. Moreover, due to distance, it is unlikely that noise from multiple related projects would interact to create a significant combined noise impact. Because of this, it is not anticipated that a significant cumulative increase in permanent ambient noise levels would occur and, therefore, the impact would be less than significant. Consequently, the Project contribution to cumulative noise impacts is not considered to be cumulatively considerable.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Would result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.**

Vibration impacts are localized in nature and decrease with distance. Consequently, in order to achieve a cumulative increase in vibration, more than one source emitting high levels of vibration (greater than 80 VdB) would need to be in close proximity to the noise receptor. The closest related project, the CCTAN/Colorado Mixed Use Project at 507-525 W. Colorado Street, is located approximately 200 feet from the Project site. The nearest residential use to both projects is the ICIS apartment complex which is located adjacent to the west of the Project site and approximately 130 feet southwest of the CCTAN/Colorado Mixed Use Project. As previously identified, the Project would likely result in 92 VdB at

15 City of Glendale, *General Plan* "Noise Element," Technical Appendix, 2030 Traffic Noise Contours, draft (December 13, 2005), http://www.glendaleca.gov/home/showdocument?id=830.

the ICIS apartment complex. The CCTAN/Colorado Mixed Use Project would result in 64 VdB at the ICIS apartment complex which would not exceed the 80 VdB threshold for residential uses. Since the CCTAN/Colorado Street Mixed Use Project would not contribute as a second vibration source which would potentially impact the ICIS Mixed Use Project, cumulative vibration impacts would be less than significant. It should be noted that similar mitigation measures identified for the Project would also apply to the CCTAN/Colorado Mixed Use Project and any other related projects, and would reduce noise levels to the maximum extent feasible.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.**

Noise impacts are localized in nature and decrease with distance. Consequently, in order to achieve a cumulative increase in noise, more than one source emitting high levels of noise would need to be in close proximity to the noise receptor. The closes related project is the CCTAN/Colorado Mixed Use Project that is located approximately 200 feet north of the Project site. The closest residential use to both projects is the ICIS multifamily apartment complex is located adjacent to the west of the Project and approximately 130 feet southwest of the CCTAN/Colorado Mixed Use Project. Concurrent construction activity at the ICIS apartment complex would be approximately 74 dB(A) which would exceed 65 dB(A) for residential uses. Similar mitigation measures identified for the Project would also apply to the CCTAN/Colorado Mixed Use Project and any other related projects, and would reduce noise levels to the maximum extent feasible. However, the combined noise impacts of the Project combined with related projects during construction would remain significant and unavoidable.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Implementation of Mitigation Measures **MM 4.4-2** through **MM 4.4-8** would be required.

Level of Significance After Mitigation: Significant and unavoidable.

4.5 PUBLIC SERVICES

This section addresses the potential impact of the Project on fire protection, emergency medical services, police protection, and schools. The Glendale Fire Department, Glendale Police Department, and the Glendale Unified School District provided the information referred to in this section.

4.5.1 FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

Environmental Setting

Existing Conditions

The Glendale Fire Department (Fire Department) provides comprehensive emergency services for the City of Glendale (City), including fire, rescue, and emergency medical (paramedic) services, as well as fire prevention and code enforcement functions. The Fire Department is a Certified Unified Program Agency (CUPA), meaning the Fire Department is responsible for administration and enforcement of all CUPA programs for hazardous materials and wastes.

The Fire Department Operations Section consists of nine fire stations, which house nine engine companies, three truck companies, and six basic life support (BLS) ambulances (four 24 hour units and two 12 hour units). The Fire Department also has a Hazardous Materials Unit and a full-service Fire Prevention Bureau. A daily contingent of approximately 50 firefighter personnel is on duty at all times, with a combined staff of 240 personnel, including uniformed firefighters, administrative, fire prevention, and support personnel.[1] The ratio of firefighters to residents in the City presently stands at one firefighter to 816 residents.[2]

The Fire Department and the City are both designated Class 1 (highest) by the Insurance Service Office. In 2013, the Fire Department responded to over 17,200 fire, medical, service, and other types of incidents,[3] which totals about 47 incidents per day. An incident may be as simple as responding to a false alarm in a commercial building or as complex as fighting a brush fire with assistance from other fire agencies.

Three fire stations are anticipated to have primary responsibility for providing fire protection services to the Project site. The equipment and personnel at each of these facilities–Fire Stations 21, 22, and 25–is summarized in **Table 4.5.1-1, Fire Protection and Emergency Medical Service Staffing and Equipment**, and the location of these stations in relation to the Project site is shown in **Figure 4.5.1-1, Fire Stations Responding to the Project Site**. Station 21 would have first response duties, given the proximity to the Project site.

1 Glendale Fire Department, "Administration" (2014), http://www.glendaleca.gov/government/departments/fire-department/administration-.
2 Based on a population of 195,799.
3 Glendale Fire Department, "Administration" (2014).

Table 4.5.1-1
Fire Protection and Emergency Medical Service Staffing and Equipment

Station Number	Location	Distance from Site	Equipment/Staff
21	421 Oak Street	Approximately 0.2 miles	One engine with four personnel-two firefighters and two paramedics; one 24 hour BLS ambulance with two ambulance operators; one truck with four firefighters; one battalion chief
22	1201 South Glendale Avenue	Approximately 1.0 mile	One engine with four personnel- two firefighters and two paramedics; one 12 hour BLS ambulance with two ambulance operators
25	353 N. Chevy Chase Drive	Approximately 1.7 miles	One engine with four personnel-two firefighters and two paramedics; one 24 hour BLS ambulance with two ambulance operators

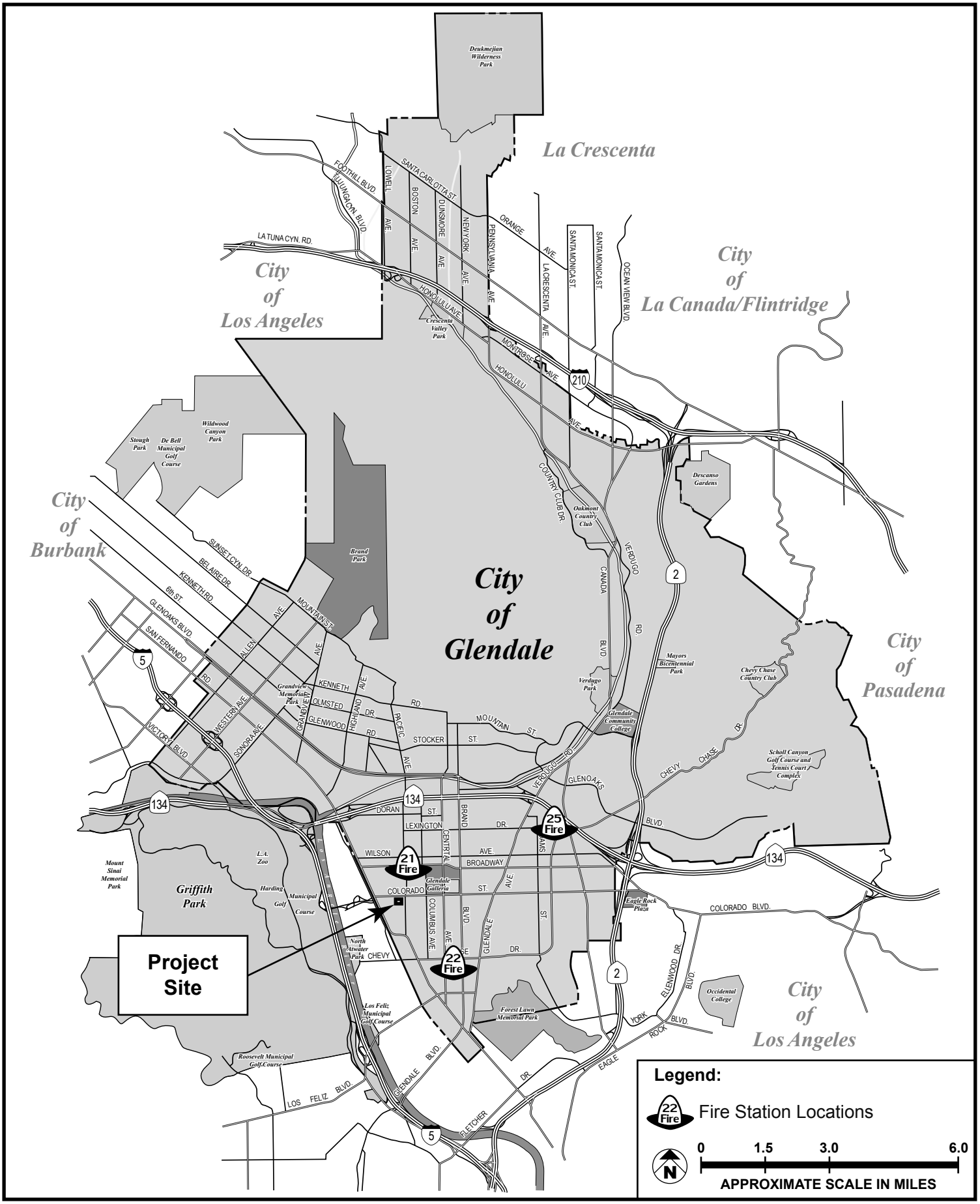
Source: City of Glendale, Fire Department, "Fire Stations" (2014), http://www.glendaleca.gov/government/departments/fire-department/administration-/fire-stations.

All three stations serving the Project site house BLS ambulances and have primary responsibility for providing emergency medical services to the Project site. As the Project is located in the Station 21 response district, BLS ambulance 21 has primary response duties to the Project site followed by BLS ambulance for Station No. 22 as the "next due" ambulance. In FY 2012-2013, BLS 21 responded to 4,084 medical incidents, or about 340 incidents per month, while BLS 22 responded to 1,532 incidents over the course of the year.[4]

Other Glendale Fire Department stations in the City of Glendale, as well as stations in the cities of Burbank and Pasadena, provide secondary response to the site through the "Verdugo Fire" communications system. Under the Verdugo Fire system, units from all 10 cities in the system are dispatched by a common dispatch center and respond to incidents at any location in the collective region. Similarly, the Fire Department has mutual aid agreements with the City of Los Angeles and the County of Los Angeles.

In addition to equipment, personnel, and workload, fire flow is an important factor in fire suppression activities. Fire flow is defined as the quantity of water available for fire protection in a given area and is normally measured in gallons per minute (gpm).

4 Doug Nickles, Glendale Fire Department, electronic communication December 11, 2013.



SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.5.1-1**

Meridian Consultants

Fire Stations Responding to the Project Site

064-002-14

Regulatory Setting

There are a number of goals and policies set forth by the City of Glendale in the General Plan Community Facilities and Safety Elements that relate to fire protection services. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

The Fire Department requires the provision of fire flows to serve individual developments, in accordance with the 2013 California Fire Code/2014 Glendale Building and Safety Code amendments, which allows up to a 75 percent reduction in required fire flows for buildings constructed with an approved sprinkler system.[5] The City of Glendale only allows up to a 50 percent reduction in fire flows for a building with sprinklers.[6] Depending on the type of building construction and square footage, fire flow requirements range from 1,500 gpm for 2 hours to 8,000 gpm for 4 hours. For sprinkler-equipped buildings, the City of Glendale's fire flow requirements are at least 1,500 gpm to as much as 4,000 gpm, depending on the type of building.

Funding for the Fire Department in the City of Glendale is derived from various types of tax revenue (e.g., tax increment in the form of property taxes, sales taxes, user taxes, vehicle license fees, deed transfer fees), which are deposited in the City's general fund. The City Council then allocates the revenue for various public infrastructure improvements and public services and facilities that the City provides, including fire protection services. As the Project is developed, tax revenues from property and sales taxes would be generated and deposited in the City's general fund and the State Treasury. A portion of these revenues would then be allocated to the Fire Department during the City's annual budget process to maintain staffing and equipment levels and facilities within the City of Glendale in numbers adequate to serve Project-related increases in service call demands.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on public services, including fire protection and emergency medical services, if the following could occur:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the

5 California Fire Code, Appendix B, "Fire-Flow Requirements for Buildings" (2013). 534.
6 Glendale Building and Safety Code, Section VI-46 (2014), 277.

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection and emergency medical services.

Methodology

Potential Project impacts were evaluated based on the ability of the Glendale Fire Department to maintain adequate service ratios, response times, or other performance objectives in the City resulting from development of the Project, and not result in the need for the provision of new or physically altered governmental facilities.

Project Impacts

Threshold: **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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical services.**

Fire Service

The Project would develop a multifamily residential building that would have 71 multifamily residential units, a two level subterranean parking structure that would provide 161 parking spaces, and residential amenities. Based on the mix of multifamily residential units, the Project would generate approximately 185 residents. The new residential units would create additional demand on the Glendale Fire Department, specifically to Fire Station 21, which would have first response duties. The present firefighter to resident ratio, based on a population of 195,799 people, is one to 816. The Project would increase the City's population to 195,984 residents, which would increase the overall ratio to one firefighter to 817 residents.[7] The increase in residents within the City would not substantially impact the current fire services and would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

7 Note: 195,799 (2014 population) plus 185 (Project residents) = 195,984/240 (personnel) = 816.6 = 817, 1 firefighter per 817 residents.

Emergency Medical Services

The additional residents associated with the Project would result in an increase in emergency medical responses. The Project is located within the response district for BLS 21, which averages 340 calls per month. The City has no formal service ratios or performance objectives for BLS service, but has considered a performance workload of 350 responses per month for a paramedic rescue ambulance. Based on the existing number of monthly calls, the addition of 185 residents associated with the Project would generate an additional 15 emergency medical services (EMS) calls every month, which would be slightly, but not substantially, above the considered performance workload of 350 responses per month for a basic life support ambulance.[8] The Project site is located within a 1-mile radius of both BLS 21 and BLS 22 and, in the event that BLS 21 is unable to respond to an EMS call from the Project site, BLS 22 would respond to the EMS call. BLS 22 responds to approximately 173 monthly calls.[9] BLS 21 and BLS 22 would be able to handle the EMS calls from the Project site and would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Fire Flow

Fire flow tests were performed by the Glendale Fire Department on August 18, 2006, on a nearby fire hydrant at the 500 block of W. Colorado Street. Test results indicated that the hydrant on W. Colorado Street has a static pressure of 93 psi, residual pressure of 70 psi, and a residual flow of 4,462 gpm at 20 psi. The fire flow requirements are 1,500 gpm for W. Colorado Street hydrants. As such, sufficient fire flow exists to serve the Project site. Water service to the Project site is presently provided by existing water lines on and adjacent to the site.

Impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

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8 Doug Nickles, Fire Prevention Coordinator, City of Glendale Fire Department, electronic communication with Meridian Consultants, December 11, 2013.

9 Glendale Fire Department, “One-Year Review of the BLS Ambulance Program" (2013), http://www.ci.glendale.ca.us/government/council_packets/Reports_012913/CC_8b_012913.pdf.

Cumulative Impacts

The Project and related projects (refer to **Section 4.0, Environmental Impact Analysis,** for a list of related projects) together would increase development in the Project area. Fifteen related projects would be served by Fire Station 21 as they are located in close proximity (approximately 0.5 miles or less) to Fire Station 21 as shown in **Table 4.5.1-2, Related Projects Located Near Fire Station 21**. These related projects, together with the proposed Project, would result in the addition of approximately 4,952 residents. The introduction of the new uses by the Project and related projects would reduce the present fire personnel-to-resident ratio of one firefighter to 816 residents to approximately one to 837.[10]

Table 4.5.1-2
Related Projects Located Near Fire Station 21

#	Project Name	Location	Distance from Fire Station 21
1		525 West Elk Avenue	Approximately 0.20 miles
2	Colorado Gardens	124 West Colorado Street	Approximately 0.30 miles
3		125 North Central Avenue	Approximately 0.35 miles
4	Central + Wilson	130 North Central Avenue	Approximately 0.36 miles
5	Hampton Inn and Suites	315 South Brand Boulevard	Approximately 0.37 miles
6	Orange + Wilson	200 West Wilson Avenue	Approximately 0.39 miles
7		604-610 West Broadway	Approximately 0.39 miles
8	Hyatt Place Glendale	225 West Wilson Avenue	Approximately 0.40 miles
9		463 Salem Street	Approximately 0.41 miles
10	Veteran's Village of Glendale	327 Salem Street	Approximately 0.41 miles
11		619 South Pacific Avenue	Approximately 0.43 miles
12	Brand + Wilson	124 West Wilson Avenue	Approximately 0.44 miles
13		300 North Central Avenue	Approximately 0.49 miles
14	Legendary Tower	301 North Central Avenue	Approximately 0.50 miles
15	Lex on Orange	320-324 North Central Avenue	Approximately 0.50 miles

Impacts associated with these additional residents would include an increase in emergency medical responses, fire protection responses, fire prevention inspections, public education activities, participation in community events, and ongoing relations with businesses and homeowners associations. The increases in residents and commercial tenants within the City could result in the need to expand existing fire facilities or the need for new fire facilities to maintain existing fire services. For

10 Note: 195,799 (2014 population) plus 4,952 (residents) = 200,751/240 (personnel) = 836.463 = 837.

these reasons, implementation of related projects was considered to result in a significant fire service impact. As discussed previously, the Project would not result in significant impacts to the Glendale Fire Department on a project-specific level. The Project, however, would contribute to the significant impact and would be considered to be cumulatively considerable. For this reason, fire impacts are considered to be significant.

Level of Significance before Mitigation: Significant.

Mitigation Measures: No mitigation measures are available at this time

Level of Significance after Mitigation: Significant and unavoidable.

ENVIRONMENTAL SETTING

Existing Conditions

The Glendale Police Department (Police Department) provides police protection services in the City of Glendale. The Department operates out of its headquarters building located at 131 North Isabel Street approximately one mile northeast of the Project site.[11]

In October 2009, the Police Department implemented an Area Command service delivery model. The objective of this command structure is to address crime issues and improve quality of life through accountability, professional responsibility, and strategic utilization of our limited police resources.[12] The City is divided into five distinct geographic areas. Each Area Commander is held accountable for understanding the issues and concerns unique to their service area. This includes developing strategies and directing resources to solve problems resulting in an improved quality of life for City of Glendale citizens. The Project is located in the South Command Geographic Area, Reporting District 266.[13]

The Police Department has approximately 244 sworn officers.[14] The Police Department does not have a target officer-to-population staffing ratio.[15] However, the Federal Bureau of Investigation (FBI) traditionally recommends a ratio of 2 officers per 1,000 residents for minimum staffing levels. The 2014 officer-to-population ratio in the City is approximately 1.24 sworn officers per 1,000 residents. Therefore, the City is currently below recommended staffing levels of the FBI.

There are various special units within the Department including the K-9 Unit, the Traffic Bureau, and the Special Enforcement Detail (SED). In 2014, the Glendale Police Traffic Bureau was comprised of a traffic lieutenant, two sergeants, two civilian supervisors, two traffic investigators, 13 motorcycle officers, two collision investigators (in police cars), eight parking enforcement officers, and three customer service employees.[16] The Traffic Bureau's responsibilities include, but are not limited to, investigation of traffic collisions and analysis, traffic safety education and public information, operation of speed-measuring

11 Glendale Police Department, "Glendale Police Department," http://www.glendaleca.gov/government/departments/police-department.

12 Glendale Police Department, "Area Command," http://www.glendaleca.gov/government/departments/police-department/area-command.

13 Glendale Police Department, "Geographic Area—South Command," http://www.glendaleca.gov/government/departments/police-department/area-command/learn-more-about-the-south-command.

14 Abigail Luczon, Senior Crime Analyst, Glendale Police Department, electronic communication with Meridian Consultants, August 6, 2014.

15 Abigail Luczon, electronic communication, August 6, 2014.

16 Abigail Luczon, electronic communication, August 4, 2014.

devices ("lidar"), and parking enforcement.[17] Additionally, the Police Department also has a SED, which is a field-based unit that concentrates on problems for trends that Patrol does not have the resources to handle.[18]

In 2013, the Police Department reported 1,671 major (Type I) crimes and 3,805 minor (Type II) crimes for a rate of 28 crimes per 1,000 residents.[19] The Police Department produces monthly crime statistics and activity reports. In June 2014, the Department had 258 Uniform Crime Report (UCR) Part I crimes and 647 UCR Part II crimes.[20] In total, there were 11,167 calls for police services in June 2014.[21] **Table 4.5.2-1, Arrests in June 2014**, illustrates the arrests for felonies and misdemeanors in the month of June 2014 and compares the year to date to the previous year's totals.

Table 4.5.2-1
Arrests in June 2014

Arrests	June 2014	Year to Date	Last Year to Date
Felonies	231	1,301	1,170
Misdemeanors	520	3,034	2,982

Source: Glendale Police Department, Monthly Crime Statistics and Activity Report, June 2014.

The Police Department has an overall response time goal of 3 minutes for emergencies. Currently, the Police Department's average response time from call entry to the scene is 6 minutes and 51 seconds for emergencies, 5 minutes and 32 seconds for Priority 1 crimes, 17 minutes and 11 seconds for Priority 2 crimes, and 41 minutes and 4 seconds for Priority 3 crimes.[22]

Regulatory Setting

All law enforcement agencies within the State of California are organized and operated in accordance with the applicable provisions of the California Penal Code. This code sets forth the authority, rules of conduct, and training for peace officers. Under State law, all sworn municipal and county officers are State Peace Officers.

17 Abigail Luczon, electronic communication, August 4, 2014.
18 Abigail Luczon, electronic communication, August 4, 2014.
19 Glendale Police Department, "Monthly Crime Statistics and Activity Report" (June 2014), http://www.glendaleca.gov/home/showdocument?id=16751.
20 Glendale Police Department, "Monthly Crime Statistics" (June 2014).
21 Glendale Police Department, "Glendale Police Incidents (Calls for Service)" (June 2014), http://www.glendaleca.gov /home/showdocument?id=16749.
22 Glendale Police Department, "Monthly Crime Statistics" (June 2014).

The County of Los Angeles is required by State law to organize a formal mutual aid agreement between all police departments within its jurisdiction. This agreement is set forth in the Mutual Aid Operations Plan for Los Angeles County. The Mutual Aid Operations Plan provides a structure of response should an emergency in Glendale arise that requires immediate response by more law enforcement personnel than would be available to the Glendale Police Department using all available resources.

The Glendale Police Department has implemented Community Oriented Policing and Problem Solving (COPPS), a community-policing program that promotes proactive long-term problem solving through community police partnerships that address community concerns, causes of crime, and the fear of crime. The goal of the program is to improve the quality of life for those living, working, or visiting the City of Glendale.

There are a number of goals and policies set forth by the City of Glendale in the General Plan Community Facilities and Safety Elements that relate to police protection services. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on police services, if the following could occur:

- 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 could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.

Methodology

Potential Project impacts were evaluated based on the adequacy of existing and anticipated staffing, equipment, and facilities to meet the additional demand for police protection services resulting from development of the Project. Effects on the officer-to-population ratio and the net increase in reported incidents and calls for service were taken into consideration when determining the impact of the Project on police protection services.

Project Impacts

Threshold: **Result in substantial adverse impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection.**

Officer-to-Resident Ratio

The Project would consist of a 5-story, multifamily residential building with 71 residential units, a two-level subterranean parking structure that would provide 161 parking spaces, and residential amenities. Based on the mix of multifamily residential units, the Project would generate approximately 185 residents. The new residential units would create additional demand on Glendale Police Department, specifically in Reporting District No. 266 in the southern portion of the City. The 2014 officer-to-population ratio within the City is 1.24 sworn officers per 1,000 residents. Based on a target officer-to-population ratio, Project residents would result in a need for 0.23 sworn officers per 1,000 residents. The Project would increase the City's population to 195,984 residents, which would still result in an overall ratio of 1.24 sworn officers per 1,000 residents.[23] The increase in residents within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Calls For Service

The increase in City residents by the Project would generate additional calls for service. As noted previously, there were 11,167 calls for police services in June 2014. Based on the existing number of calls for police services per 1,000 residents, the Project would generate approximately 11 calls per month and approximately 132 calls per year for police services.[24] The increase in additional calls would not seriously impact police department operations. The Project would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

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23 Note: 195,799 (2014 population) + 185 (Project residents) = 195,984; 195,984/1,000 = 195.984; 244 (sworn officers)/195.984 = 1.244 = 1.24 sworn officers per 1,000 residents.

24 Note: 195,799 (2014 population) / 1,000 = 195.799; 11,167 (calls for service)/195.799 = 57.03 (calls per 1,000 residents); 57.03/1,000 = .0570 x 185 (Project residents) = 10.545 = 11 calls; 11 x 12 = 132 calls per year.

Response Time

As discussed previously, the Police Department has an overall response time goal of 3 minutes for emergencies. Currently, the average Police Department response time from call entry to the scene is 6 minutes and 51 seconds for emergencies, 5 minutes and 32 seconds for Priority 1 crimes, 17 minutes and 11 seconds for Priority 2 crimes, and 41 minutes and 4 seconds for Priority 3 crimes. However, the Glendale Police Department considers current response times in the City adequate and, due to distance of the Project from the nearest police station and the increase in calls for service, the Project would not adversely affect response times in the City. The Project would not result in the need for any new or the physical alteration to any existing governmental facility. Consequently, potential impacts are considered to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

The Project and related projects (refer to **Section 4.0, Environmental Impact Analysis** for list of commercial, residential, and office projects) would result in the addition of approximately 10,843 residents to the City of Glendale. Implementation of the related projects and associated increase in population would increase the demand for police protection services and could require the need for the construction of new or physically altered facilities to accommodate the increased demand associated with the related projects. This would result in a significant cumulative impact. As discussed previously, the Project would not result in significant impacts to the Glendale Police Department on a project-specific level. The Project, however, would contribute to increased calls for service to the Glendale Police Department and would be considered to be cumulatively considerable. For this reason, impacts are considered to be significant.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: No mitigation measures are available at this time.

Level of Significance After Mitigation: Significant and unavoidable.

ENVIRONMENTAL SETTING

Existing Conditions

The Project site is located within the boundaries of the Glendale Unified School District (GUSD). The western and southern boundaries of the GUSD are coterminous with the boundaries of the City of Glendale, while the eastern and northern portions of the GUSD include two unincorporated Los Angeles County communities, La Crescenta and Montrose, and a small portion of the City of La Cañada-Flintridge.

GUSD facilities include 15 elementary schools with grades K–6 and five elementary schools with grades K-5, three middle schools with grades 6–8 and one middle school with grades 7–8, three comprehensive senior high schools with grades 9–12, one magnet high school, one continuation high school, and a developmental center for multi-handicapped students.

The capacity of the GUSD is 17,476 students for grades K-6; 5,292 students for grades 7-8; and 8,613 students for grades 9-12 for a total capacity of 31,381 students. During the 2013–2014 school year, the GUSD had a total enrollment of 26,084 students.[25] Approximately 45 percent of the students were enrolled in elementary schools (grades K–6), approximately 18 percent were enrolled in middle school (grades 7–8), approximately 34 percent were enrolled in high school (grades 9–12), approximately one percent was enrolled in continuation programs, and less than one percent was enrolled in special education programs.

The Project site is located within the attendance boundaries of Edison Elementary, Roosevelt Middle School, and Glendale High School. According to the latest site capacity study prepared by the GUSD in August 2014, the current capacity of these neighborhood schools is 751 students at Edison Elementary School, 1,206 students at Roosevelt Middle School, and 3,802 students at Glendale High School.[26]

During the 2013–2014 school year, Edison Elementary had an enrollment of 854 students, Roosevelt Middle School had an enrollment of 830 students, and Glendale High School had an enrollment of 2,691 students.[27] When compared with current enrollment, Edison Elementary, which serves the Project site, is currently operating over capacity.

25 Karolin Savarani, Executive Secretary, Business Services, Glendale Unified School District, electronic communication with Meridian Consultants, August 15, 2014.
26 Karolin Savarani, electronic communication, August 15, 2014.
27 Karolin Savarani, electronic communication, August 15, 2014.

Regulatory Setting

The regulatory framework for schools is established at the school district and state level. The GUSD has adopted the site size standards from the School Facilities Planning Division of the State Department of Education. The state has traditionally been responsible for the funding of local public schools. To assist in providing facilities to serve students generated by new development projects, the state passed Assembly Bill 2926 in 1986. This bill allowed school districts to collect impact fees from developers of new residential and commercial/industrial building space.

In addition, the Glendale General Plan Community Facilities Element sets forth goals and policies that relate to schools. An analysis of the consistency of these applicable goals and policies with the proposed Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project as proposed does not conflict with the City's General Plan.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on public services, including schools, if the following could occur:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.

Methodology

Potential Project impacts on the GUSD were evaluated by applying current district student generation ratios for multifamily dwelling units by grade level to units proposed by the Project.[28] The number of students generated directly by the Project was applied to individual schools serving the Project site to determine if these facilities could accommodate an increase in students.

Project Impacts

Threshold: **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 could cause**

28 Generation rates supplied by Karolin Savarani, August 15, 2014.

significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.

As shown in **Table 4.5.3-1, Project Student Generation Table**, the 71 multifamily residential units associated with the Project would generate approximately 8 students grades K–6, 3 students grades 7–8, and 3 students grades 9–12 for a total of 14 students based on the student generation ratios utilized by the GUSD.

Table 4.5.3-1
Project Student Generation Table

Grade Levels	Generation Rates (Students per Unit)	Proposed Residential Units	Total
K–6	0.11	71	8
7–8	0.03	71	3
9–12	0.04	71	3
		Total students	**14**

Source: Karolin Savarani, Executive Secretary, Business Services, Glendale Unified School District, electronic communication between Meridian Consultants, August 15, 2014.

The Project would add 8 students to Edison Elementary for a projected enrollment of 862 students which would be above the operating capacity of 751 students; would add 3 students to Roosevelt Middle School for a projected enrollment of 833 students which would be below the operating capacity of 1,206; and would add 3 students to Glendale High School for a projected enrollment of 2,693 students which is below the operating capacity of 3,802 students. All schools serving the Project site are currently operating under capacity, except for Edison Elementary which is currently operating over capacity. Therefore, absent mitigation, Project impacts on Edison Elementary would be significant. Potential school impacts would be considered to be less than significant for Roosevelt Middle School and Glendale High School.

Level of Significance Before Mitigation: Significant for Edison Elementary. Less than significant for Roosevelt Middle School and Glendale High School.

Mitigation Measures: The following mitigation measure is required per State law to mitigate the impact of the Project on Edison Elementary.

MM 4.5.3-1 As authorized by SB 50, the project applicant shall pay school impact fees to the GUSD prior to the issuance of building permits. The current fee schedule for residential development is $3.20 per square foot.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Implementation of the Project and related projects would increase the need for public services in the City. According to **Table 4.0-1, List of Related Projects,** related projects would result in the development of approximately 4,186 residential units and when combined with the Project, it would result in the addition of 4,257 residential units. Combined, these additional units would generate approximately 469 students grades K–6, 128 students grades 7–8, and 171 students grades 9–12, for a total of 769 students.

Table 4.5.3-2
Cumulative Student Generation Table

Grade Levels	Generation Rates (Students per Unit)	Proposed Residential Units	Total
K–6	0.11	4,257	469
7–8	0.03	4,257	128
9–12	0.04	4,257	171
		Total Students	**768**

Source: Karolin Savarani, Executive Secretary, Business Services, Glendale Unified School District, electronic communication between Meridian Consultants, August 15, 2014.

The Project and related projects would result in a projected enrollment of 12,207 students for grades K–6; 4,822 students for grades 7–8; and 9,040 students for grades 9–12. Based on these enrollment projections, there would be enough school capacity for grades K–6 and 7–8. However, due to a projected lack of school capacity for grades 9–12 in the GUSD, these additional students would result in a significant impact.

According to Government Code Section 65995, the payment of school impact fees, authorized by Senate Bill 50, by each project will fully mitigate the impact of the Project and related projects on local schools from cumulative development. Therefore, through payment of these fees, the cumulative impact of the Project and related projects would be reduced to a less than significant level.

Level of Significance before Mitigation: Significant for grades 9-12. Less than significant for grades K-6 and grades 7-8.

Mitigation Measures: MM 4.5.3-1 would be required.

Level of Significance after Mitigation: Less than significant.

4.6 RECREATION

This section describes and evaluates potential impacts to existing and future parks and recreation facilities in the City of Glendale. The analysis in this section is based upon the City of Glendale Recreation Element, the City of Glendale Open Space and Conservation Element, and updated information obtained from the City of Glendale's Community Services and Parks Department.

ENVIRONMENTAL SETTING

Existing Conditions

Developed Park and Recreation Facilities

The City of Glendale Parks, Recreation, and Community Services Department owns and operates public parks and recreation facilities in the City. Approximately 7,647 acres of public open space exists within the boundaries of the City, of which 5,360 acres are City owned.[1] City-owned open space consists of undeveloped parkland in the form of regional and community parks such as Brand Park, Deukmejian Wilderness Park, Deerpass, and Flint Canyon. The remaining 1,296 acres of public open space includes lands owned by the California Department of Transportation (Caltrans), Los Angeles County, Southern California Edison Company, and the Los Angeles County Department of Public Works, Flood Control Division.[2]

In addition, privately held properties comprise a total of 991 acres of open space. Privately held open space includes unsubdivided land and developed recreation and education facilities (e.g., golf courses, youth camps, and religious retreats).[3] Privately held golf courses include the Oakmont Golf course which lies approximately five miles from the center of Glendale (located at 3100 Country Club Drive), and the Chevy Chase Country Club and Golf Course located at 3067 E. Chevy Chase Drive.

The City's park system consists of approximately 286 acres of developed parkland in 46 parks and facilities.[4] Six types of parks within the City are defined in the General Plan Recreation Element; these include regional parks, community parks, neighborhood parks, mini parks, community centers, and special facilities. Definitions of each recreation facility type and the associated characteristics of each are summarized in **Table 4.6-1, Parks and Recreation Facilities Classification and Service Area Standards.**

1 City of Glendale, *General Plan,* "Open Space and Conservation Element" (revised September 27, 2005) Table 4-7.
2 City of Glendale, "Open Space and Conservation Element" (revised September 27, 2005).
3 City of Glendale, "Open Space and Conservation Element" (revised September 27, 2005).
4 Tereza Aleksanian, Executive Analyst, City of Glendale, Community Services and Parks, electronic communication, August 12, 2014.

Table 4.6-1
Parks and Recreation Facilities Classification and Service Area Standards

Component	Service Area	Size (acres)	Amount Per 1,000 Population (acres)	Desirable Uses	Site Characteristics
Regional park	Several cities (1-hour drive time)	More than 30	N/A	Picnicking, play area, boating, fishing, swimming, camping, trails	Contiguous to or encompassing natural resources.
Community park	1-mile radius	10–30	5.0–6.0	Athletic fields and courts, gymnasiums, swimming pools, picnic sites, play areas	Suited for intense development. May encompass natural resources.
Neighborhood park	0.5-mile radius	2–10	1.0–2.0	Athletic field and courts, play areas, picnic sites, wading pools	Suited for intense development with safe pedestrian and bike access. May be developed as a school site facility.
Mini park	Less than a 0.25-mile radius	1 or less	0.25–0.5	Play equipment areas, wading pools	Suited for high density multifamily and senior housing units.
Community center	2-mile radius	0.5–5	N/A	Multipurpose building and gymnasium, open play area	Suited for intense development with safe pedestrian access.
Special facilities	No applicable standard	N/A	N/A	May include golf courses, historic grounds or buildings, botanical gardens, commercial plazas or squares, nature centers	

Source: City of Glendale, General Plan, Recreation Element (1996).
Note: N/A = not available.

In addition to City recreation facilities, trailhead access to regional trail systems, including trail systems in the Verdugo Mountains, San Rafael Hills, Santa Monica Mountains, and Angeles National Forest (San Gabriel Mountains), is provided from the City's community parks.[5]

For purposes of planning its recreation facilities, the City has established 11 Recreation Planning Areas in accordance with patterns of community boundaries and park facility accessibility, as defined by

5 City of Glendale, *General Plan,* "Recreation Element" (1996). p. 4-2, Chart 4-1.

mountains, freeways, and other barriers to use. The Project site is located in Recreation Planning Area No. 7, which encompasses a 640-acre area characterized by multifamily residential and industrial uses and includes 18,683 residents.[6] The park acreage for the Planning Area No. 7 is 10.4 acres, which provides a ratio of approximately 0.557 acres of parkland per 1,000 residents.[7]

Several City park and recreation facilities are located within a 1-mile radius of the Project site. The locations of these facilities are shown on **Figure 4.6-1, Glendale Parks and Recreation Facilities Within 1-Mile Radius of the Project Site**, and the characteristics of each are summarized in **Table 4.6-2, Glendale Parks and Recreation Facilities Within 1 Mile of the Project Site**. Currently, the closest facilities to the Project site are the Pacific Park and Community Center and the Pacific Community Pool located approximately 0.1 miles to the south, and the Harvard Mini Park located approximately 0.3 miles to the northeast. Based on the City's 2014 population of 195,799 residents, the City's parkland-to-resident ratio is 1.46 acres per 1,000 residents.[8,9]

Planned Park Acquisition, Development, and Construction

The City of Glendale is currently devoting additional resources for the acquisition, development, and construction of parks within residential areas throughout the City. Future acquisition of land for recreational use will provide a wide array of activities and facilities. The following is a list of tasks currently being undertaken by the City related to acquiring land for park recreation purposes. It should be noted that the tasks listed below are in different stages of acquisition, development, and/or construction or recently completed.[10]

- Catalina Verdugo Trail – completed June 2013
- Pacific Edison Artificial Turf – completed April 2014
- Le Mesnager Center at Deukmejian Wilderness Park – program development and schematic design stage
- Glendale Narrows Riverwalk Phase II and Phase III – construction anticipated to begin in 2015
- Maple Park Site Improvement Project – completed July 2014
- Maryland Avenue Park – completed July 2014
- Batting Cages at Sports Complex – construction anticipated to be completed by December 2015

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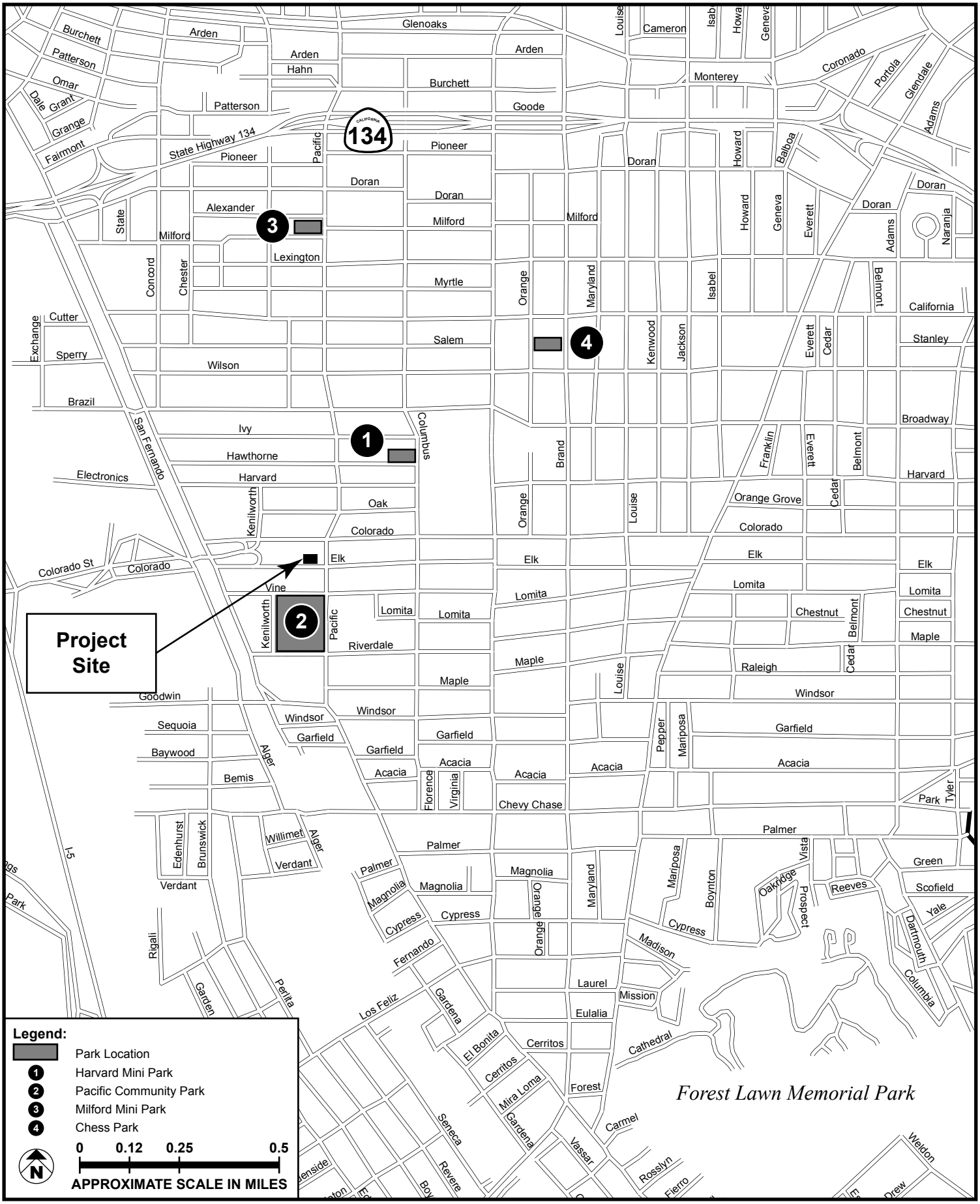
6 City of Glendale, California, "Distribution of Parkland in Glendale," www.glendaleca.gov/home/ showdocument?id=13510.
7 18,683 residents/1,000 residents = 18.683; 10.4 parkland/18.683 residents = 0.557
8 California Department of Finance, "E-5: City/County Population and Housing Estimates,"(January 1, 2014).
9 195,799 residents/1,000 = 195.799; 286 acres of parkland/195.799 = 1.46 acres of parkland per 1,000 residents.
10 Tereza Aleksanian, Executive Analyst, City of Glendale, Community Services and Parks, electronic communication, August 12, 2014.

- Fremont Park – master planning stage; park improvement design anticipated by mid-2015 with construction commencing early 2016
- Mountain Do Trail – completed in June 2013
- Pacific Park/Pool/Community Center Wayfinding – completed July 2014
- Palmer Park Renovation – design stage to be completed by late 2014; construction anticipated to begin in 2015

Table 4.6-2
Glendale Parks and Recreation Facilities Within 1 Mile of the Project Site

Facilities	Acres	Features
Adult Recreation Center and Central Park – in Recreation Area 9	3.16	Multiuse rooms, courtyards, exercise rooms, lounges, billiards rooms, table tennis areas, pickle ball court, passive green space, walking paths, and rest areas
Chess Park – in Recreation Area 6	0.08	16 concrete chess tables and seating areas
Doran Gardens Mini Park – in Recreation Area 6	0.38	Two children's play areas and shaded seating areas
Harvard Mini Park in Recreation Area 7	0.29	Fire Department–themed play area, seating area with a shade canopy, and open lawn area
Milford Mini Park	0.28	Children's play area and picnic areas
Pacific Park and Community Center – in Recreation Area 7	5.3	Community building with two barbeques, children's play area, seven meeting rooms, nine picnic tables, benches, lit softball/baseball fields, unlit outdoor basketball court, two gymnasiums, one lit soccer field, and an indoor volleyball court
Pacific Community Pool – in Recreation Area 7	0.46	Pool, pool deck, grand stands, restrooms, showers, and lockers
Fremont Park – in Recreation Area 6	7.9	Basketball court, children's play area, four horseshoe courts, picnic areas, eight tennis courts, volleyball courts, and wading pool
Griffith Park – City of Los Angeles	4,210	Open Space, Autry National Center, Griffith Observatory, hiking trails, tennis courts, golf, sports fields.

Source: City of Glendale Parks, Community Services and Parks, "Parks, Historic Sites & Facilities," http://www.ci.glendale.ca.us/parks/facilities_parks_historic-sites.aspx.



SOURCE: Meridian Consultants, LLC – August 2014

FIGURE **4.6-1**

Meridian Consultants

Glendale Parks and Recreation Facilities Within 1-Mile Radius of the Project Site

064-002-14

Regulatory Setting

Recreation Element of the General Plan

The Recreation Element of the Glendale General Plan addresses the City's parks and recreation needs, management of parks and use of these facilities, and the development of additional park resources.

The City's park classification system recommended that service radii and area standards adhere closely to those established by the National Recreation and Park Association's (NRPA) Recreation, Park and Open Space Standards (1983), which serves as the national standard for the assessment of park land in cities. Specifically, the Recreation Element establishes a standard of 6 acres per 1,000 residents of neighborhood park and community parkland combined.[11] This standard calls for the provision of 1 acre of neighborhood parkland per 1,000 residents and 5 acres of community parkland per 1,000 residents, for a total of 6 acres of parkland per 1,000 residents. It should be noted that this standard represents a goal and is not considered a threshold of significance for determining the significance of impacts of individual development projects because the City of Glendale Public Facilities Fee Study (discussed below) has determined that insufficient parkland exists to meet the standard for parkland per resident.

Parks and Recreation Goals, Policies, and Objectives

The Recreation Element also contains general recreation-related goals, objectives, and policies. Goals in the Recreation Element include: having a variety of recreational opportunities and programs for all residents; the conservation and preservation of cultural, historical, archaeological, and paleontological structures and sites as links to community identity; the management of aesthetic resources, both natural and manmade to create a visually pleasing City; and the development of new parks and recreation facilities responsive to particular neighborhoods or areas in the City, as identified in the Recreation Element.

As indicated in the Recreation Element, these parkland standards are desired goals for the City of Glendale, and are not applied to development projects on an individual basis. None of the Goals, Objectives, or Policies of the Recreation Element requires that individual development projects meet these standards. In addition, the Recreation Element does not require that new residential development comply with these standards, acknowledging that, "…[s]trict adherence to these standards would dictate that the City not permit anymore [sic] housing units in areas with a deficiency of park land," and that, "…[f]ollowing this argument to its logical conclusion, based on existing neighborhood park supply, it would be difficult to permit any additional residential development."[12] This language recognizes the

11 City of Glendale, General Plan, Recreation Element (1995). 6–11.

12 City of Glendale, *General Plan,* "Recreation Element," Executive Summary (1996).

issues faced by the City with respect to imposing a fee or exaction on new development. As discussed below, the City started to address these issues and adopted a park and library development impact fee in 2007.

City of Glendale Municipal Code

Ordinance No. 5575, Public Use Facilities Development Impact Fee Ordinance, of the Municipal Code was adopted in September 2007 to provide funding for the development of additional parks and recreation facilities and to maintain the current parkland to population ratio.[13] It applies to residential, commercial, office, and industrial development projects within the City, and is supported by the City's Public Facilities Fee Study (June 2007) and related staff reports, which are available for public review and inspection at the Glendale City Clerk's Office, and are incorporated herein by this reference. The Development Impact Fees are imposed on new development as a condition of the issuance of a building permit or subdivision tract map for a development project. If a project is approved, the Development Impact Fee for park land and park facilities will be imposed on that project as a condition of approval.

On December 17, 2013, the City Council directed City staff to collect the full mitigation fee amount for projects that have yet to complete their Stage I Design Review applications. On January 28, 2014, the City adopted Ordinance No. 5575 and Resolution No. 14-10, increasing the Development Impact Fees for parks and libraries to the full Consumer Price Index (CPI) adjusted amount of $18,751 per residential unit and $6.60 per commercial square foot. This ordinance became effective 60 days after adoption of the ordinance on March 29, 2014.

A project is considered a pipeline project if an application for Stage I Design Review was deemed complete before the effective date of the ordinance, March 29, 2014 and if a building permit for the project is issued within three years from the date the development project plans were deemed complete. Projects that qualify as pipeline projects pay phase-in fees and are exempt from the fee increase and remain subject to the fee rate of $7,000 per residential unit and $2.67 per square foot of commercial space. The Project is considered a pipeline project since the Stage I Design Review application was deemed complete on March 4, 2014.

Public Facilities Fee Study

The City of Glendale Public Facilities Fee Study provides an analysis of the need for public facilities and capital improvements to support future development within the City of Glendale through 2030.

13 Glendale Municipal Code, sec. 4.10, "Public Use Facilities Development Impact Fees" (2007).

It is the City's intent that the costs representing future development's share of these facilities and improvements be imposed on that development in the form of a development impact fee, as discussed above. It is important to note that the Parks and Parkland Dedication fee includes community centers and special use recreational facilities.

The City could collect two separate fees based on the Quimby Act and the Mitigation Fee Act. Quimby fees do not apply to commercial or industrial subdivisions or to condominium projects or stock cooperative projects which consist of the subdivision of airspace in an existing building when no new units are added. Any person seeking a building permit for a new residential development, which was not required to pay a Quimby fee, shall pay the Development Impact Fee as set forth in the fee schedule in this section.[14] The applicable fee for the Project is the Mitigation Fee Act. The Mitigation Fee Act does not indicate use of a particular type or level of facility standard or public facilities fees. To comply with the findings required under the law, facility standards must not burden new development with any cost associated with facility deficiencies attributable to existing development.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on recreation, if the following could occur:

- 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.
- Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Methodology

An assessment of the impact of the Project on recreation facilities in the City is provided. This assessment is based on the City's planning standards for recreation facilities and the increase in population that would result from the Project. This standard analysis uses the City's existing ratio of park acreage per 1,000 residents to calculate the impact the Project would have by adding new residents.

14 The Quimby Act only applies to land subdivisions. A city cannot apply the Quimby Act to development on land subdivided prior to adoption of a Quimby ordinance, such as development on infill lots.

Project Impacts

Threshold: **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.**

The Project would consist of a 5-story, 71 multifamily residential unit building, consisting of 1 studio unit, 18 one-bedroom units, and 52 two-bedroom units. Based on the mix of apartment units and population growth derived from employment rates, the Project would generate approximately 185 new residents in the City.[15]

As discussed previously, the City currently has a park land–to–resident ratio of approximately 1.46 acres of parkland for every 1,000 residents. The Project increase in population would incrementally increase the use of existing neighborhood and community parks in the City. While Harvard Mini Park, Pacific Park and the Community Center, and the Pacific Community Pool are physically the closest facilities to the Project site, all parks in the city could be affected as residents could use any park and recreation facility anywhere in the City. Currently, Recreational Area No. 7 has 18,683 residents and 10.4 acres of neighborhood parkland. Thus, Recreational Area No. 7 has approximately 0.557 acres of neighborhood parkland, falling short of the City goal of 5 acres of parkland per 1,000 residents.[16] Adding 185 residents would result in a negligible decrease on the neighborhood goal because the projected ratio of parkland to residents with the Project would decrease to 0.551 acres per 1,000 residents.[17] To maintain the existing land-to-resident ratio Citywide, the Project would need to include approximately 0.001 acres of public recreation and parks facilities.[18]

The Project would provide an approximately 761 square foot recreation room and 6,138 square feet of common outdoor open space. The patios and balconies will provide a total of 6,035 square feet of private open space. The Project would provide approximately 171 square feet of open space per unit,19 in addition to an average of 85 square feet of private open space per unit in the form of balconies. A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be planted along the perimeter of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development. In general, the landscaping materials selected would

15 71 (units) x 2.6 (population generation rate for multifamily residences) = 185 residents.
16 18,683 residents / 1,000 residents = 18.683; 10.4 parkland / 18.683 residents = 0.557.
17 18,868 residents / 1,000 residents = 18.868; 10.4 parkland / 18.868 residents = 0.551
18 1.460 acres parkland per 1,000 residents (existing) – 1.459 acres parkland per 1,000 residents (with Project) = 0.001.
19 6,138 square feet of common outdoor open space + 6,035 square feet of private open space = 12,173 sq. ft. / 71 units = 171.4 sq. ft. per unit.

create a distinct character for the Project site by resulting in a visual cohesiveness throughout the streetscape, internal open spaces, and the courtyards.

Existing park facilities are currently heavily used due to the deficit in parkland in the City. The increase in use of neighborhood and community parks in the City that would result from the increase in residents associated with the Project is considered significant. The Stage I Design Review application for the Project was deemed to be complete prior to March 29, 2014 and, for this reason, the Project meets the criteria defined in the City's ordinance for pipeline projects.

Consistent with the adopted Development Impact Fee schedule, the Project would be required to pay the park component of the Phase-in fees of$7,000 per residential unit. The development impact fee payments are required to minimize the Project's impact on park and recreation land and facilities.

Under CEQA, the payment of the full nexus study development impact fee amount constitutes mitigation of Project-related impacts on park and recreation land and facilities within Glendale. However, because the reduced Phase-in fee amount will be paid, this fee payment is not considered full mitigation and is not equal to the full fair-share per unit fee for multifamily residential projects of $18,751 per multifamily unit.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure is required per the City's Public Use Facilities Development Impact Fees to mitigate the impact of the Project on park and recreational facilities.

4.6-1 The applicant shall pay the Parks & Library Impact Fee pursuant to Glendale Municipal Code Section 4.10 that were in effect at the time the project was deemed complete for Stage I Design Review.

Level of Significance After Mitigation: The Project would be required to pay development impact fees to minimize the project's impact on parks and recreation land and facilities. Under CEQA, the payment of the full nexus study development impact fee amount constitutes mitigation of project-related impacts on parks and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact, because the fee amount to be paid would not equal the full fair-share per-unit fee for multifamily residential projects, which was determined to be $18,751 per multifamily unit based on the increased of the Development Impact Fees for parks and libraries to the full CPI adjusted amount based on the City adopted Ordinance No. 5575 and Resolution No. 14-10 on January 28, 2014. Consequently, impacts would be significant and unavoidable.

Threshold: **Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.**

The Project would designate 6,138 square feet of common open space that includes the swimming pool, common areas, and a landscaped sundeck. The swimming pool area on the ground floor and the sundeck on the second floor would include furnishing, benches, and/or other seating. An approximately 761 square-foot recreation room would also be provided. The balconies will provide a total of 6,035 square feet of private open space. The Project site is designed to include approximately 4,954 square feet of landscaped area. A selection of canopy and ground cover plant materials (e.g., trees, shrubbery, flowers) would be planted along the perimeter of the site and would be designed to adhere to the Glendale design guidelines while seeking to compliment adjacent development.

The recreational amenities are incorporated into the design of the Project and would be constructed concurrently with the Project. The short-term impacts associated with the construction of these facilities are addressed in **Sections 4.2, Air Quality and Greenhouse Gas Emissions**; **Section 4.4, Noise**; and **Section 6.0, Effects Not Found To Be Significant.** Construction of the recreational amenities would not result in significant impacts, but would contribute to the overall construction impacts.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Threshold: **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Implementation of the Project and related projects would increase the use of existing recreational facilities in the City. According to **Table 4.0-1, List of Related Projects,** related projects would result in the development of approximately 4,186 residential units and when combined with Project, it would result in 4,257 residential units. Based on an average household size of 2.6 people for multifamily residences, and 1.8 people per live/work unit within the city, the Project and related projects together would result in the addition of approximately 10,843 residents.

As discussed previously, the existing ratio of parkland to residents of the City is approximately 1.46 acres per 1,000 residents, which is below the City's planning standard of 6 acres per 1,000 residents. Implementation of the Project and related projects would increase the use of existing recreational facilities in the City. The addition of 10,843 residents would lower this ratio to approximately 1.38 acres per 1,000 residents without the addition of new park land and recreation facilities.[20] Of the related projects, 14 projects are approved pipeline projects, which would result in these projects paying Phase-in fees. The remaining 33 related projects will pay the full mitigation fee amount. Additionally, all projects filed after March 29, 2014, will pay the full mitigation fee amount.

Given the existing deficiency of parkland in the City, the combined effects of the Project and related projects on existing facilities is considered cumulatively significant because the use of existing parks would increase, thus contributing to an acceleration in the physical deterioration of these facilities.

Even with the provision of Project amenities, the Project's contribution to this significant impact would be cumulatively considerable.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: As discussed previously, under CEQA, the payment of the full nexus study development impact fee amount constitutes mitigation of project-related impacts on parks and recreation land and facilities within Glendale. However, the fee payment is not considered to fully mitigate this impact, because the fee amount to be paid would not equal the full fair-share per-unit fee for residential projects, which was determined to be $18,751 per multifamily unit based on the increased of the Development Impact Fees for parks and libraries to the full CPI adjusted amount based on the City adopted Ordinance No. 5575 and Resolution No. 14-10 on January 28, 2014. Consequently, impacts would be significant and unavoidable.

Level of Significance After Mitigation: Significant and unavoidable.

Threshold: **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

The Project would designate 6,138 square feet of common open space that includes the lobby, swimming pool, common areas, and a landscaped sundeck. The swimming pool area located on the

20 195,799 residents + 10,843 new residents = 206,642 residents, 206,642 / 1,000 = 206.642; 286 acres of parkland/206.454 = 1.384 acres of parkland per 1,000 residents.

ground floor and the sundeck on the second floor would include furnishing, benches and/or other seating. The Project would provide on-site recreational amenities located in an approximately 761 square foot indoor recreation room. The Project site is designed to include approximately 4,954 square feet of landscaped area. The Project would provide a renovated streetscape and a courtyard area. A selection of canopy and ground cover plant materials (i.e., trees, shrubbery, flowers) would be located around the entire perimeter of the Project Site.

Recreational space would be incorporated into the design of the Project and would be constructed concurrently with the Project. This construction activity is not anticipated to result in a significant impact when considered in conjunction with the construction of future parks and recreational facilities elsewhere in the City of Glendale. Consequently, the incremental effect of the Project would not be cumulatively considerable and cumulative impacts associated with the Project would be less than significant.

In order to accommodate future related projects, as well as the existing deficiency of parkland within Glendale, the City is devoting additional resources to the acquisition and development of parks within residential areas throughout the City. It is reasonable to expect that all of these facilities will undergo CEQA review and that Project-specific impacts associated with the development of each will be mitigated to the extent feasible. As a result, cumulative impacts associated with construction of future parks are expected to be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

4.7 UTILITIES AND SERVICE SYSTEMS

The following sections address water supply, sewage conveyance, collection and treatment, and solid waste. Information from the 2010 Urban Water Management Plan prepared by the Glendale Water and Power Department (GWP) on domestic water supply is incorporated in this section. Information on sewage conveyance and treatment referred to in this section was collected from public agencies providing service to the City of Glendale. Solid waste information was collected from public agencies providing service to the City.

ENVIRONMENTAL SETTING

Existing Conditions

Water Supply

GWP provides water service for domestic, irrigation, and fire protection purposes to the City of Glendale. The City currently has three sources of water to meet demands, which include local groundwater, water imported from the Metropolitan Water District (MWD), and recycled water.

The City of Glendale consumed approximately 31,543 acre-feet of water during fiscal year 2012-2013.[1] Of this total, approximately 10,910 acre-feet, or 35 percent of the total water supply, were pumped from the local groundwater basins; approximately 18,761 acre-feet, or 59 percent, was provided by the MWD; and approximately 1,873 acre-feet, approximately 6 percent, was supplied by the City's water reclamation system.[2] Each of the City's water sources is described as follows.

Local Groundwater Supplies

The City receives its groundwater supply from the San Fernando and Verdugo Groundwater Basins. The rights of the City to San Fernando and Verdugo Basin groundwater supplies are defined by the decision of the California Supreme Court in *The City of Los Angeles vs. The City of San Fernando, et al.* in 1975. In addition, a 10-year agreement between the cities of Glendale, Burbank, and Los Angeles, effective October 1, 2007, also affects the parties' pumping rights in the San Fernando Basin. In the stipulated judgment, the Court found that under "Pueblo" Water Rights, the City of Los Angeles owns all San Fernando Basin surface and groundwater supplies, and that Glendale is entitled to an annual 21 percent "Return Flow Credit" from the San Fernando Basin. The 21 percent figure is based on the assumption that 21 percent of the water used by the City percolates into the groundwater table and ranges from 5,000 to 5,400 acre-feet per year depending on the overall municipal use each year. This return flow credit is the City's primary water right in the San Fernando Basin. The City was also allowed to accumulate these credits if its water rights are not used.

1 Glendale Water & Power, "Annual Report," *Annual Report 2012-2013, Water Utility Financials and Auditor's Message* (2014), http://www.glendaleca.gov/government/city-departments/glendale-water-and-power/about-us/annual-reports.

2 Glendale Water & Power, "Annual Report," *Annual Report 2012-2013, Water Utility Financials and Auditor's Message* (2014), http://www.glendaleca.gov/government/city-departments/glendale-water-and-power/about-us/annual-reports; Note: An acre-foot is the amount of water that will cover 1 acre to a depth of 1 foot and equals approximately 326,000 gallons, which represents the needs of two average families in and around the home for 1 year.

In the water year starting on October 1, 2010, the City has accumulated approximately 50,861 acre-feet of unused return flow credits in the San Fernando groundwater basin. Much of this accumulation was a result of the City not being able to pump from the basin because of the groundwater contamination. Glendale also has the right to extract additional water subject to payment to the City of Los Angeles at a cost generally equivalent to the cost of MWD alternative supplies. This right to produce water in excess of the return flow credit and the accumulated credits are significant to the operation of the Glendale Water Treatment Plant, which is part of a U.S. Environmental protection Agency (EPA) Superfund clean-up project in the City. Significant production from the basin and delivery to Glendale has occurred since the system began operation in 2000.[2,3]

Under the stipulated judgment, Glendale could extract all of these accumulated stored water credits. Pursuant to the 10-year agreement, Glendale, in any one year, may extract a limited portion of these accumulated stored water credits. The amount that can be extracted is determined annually by the watermaster based upon a formula that ensures that the parties' combined pumping does not cause water levels in the San Fernando Basin aquifer to drop below a defined level (-655,370 acre-feet). The agreement also provides that Los Angeles will invest in capital projects to improve the recharge of groundwater into the San Fernando Basin. The agreement further provides that the parties will agree upon the scope of a study to reevaluate the amount of water that can safely be extracted without harming the San Fernando Basin. In the future, this may affect the parties' groundwater rights.

In addition to current extractions of return flow water and stored water, Glendale may, in any one year, extract from the San Fernando Basin an amount not to exceed 10 percent of its last annual credit for import return water, subject to an obligation to replace such over-extraction by reduced extraction during the next water year.

Water in the San Fernando Basin is currently available for municipal use. The City currently uses 7,701 acre-feet from the basin annually.[4] The Glendale Water Treatment Plant and eight extraction wells pump, treat, and deliver water from the basin to Glendale via its Grandview Pumping Station. The plant, with a capacity of 5,000 gallons per minute, can reliably provide a maximum of 7,800 acre-feet per year (afy) for municipal use in Glendale.[5]

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3 City of Glendale Water & Power, *The Urban Water Management Plan for the City of Glendale* (adopted 2011), 20; U.S. Environmental Protection Agency (EPA), Pacific Southwest, "Superfund, San Fernando Valley (All Areas)" (2014), http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/vwsoalphabetic/San+Fernando+Valley+(All+Areas)?OpenDocument

4 City of Glendale Water & Power, *The Urban Water Management Plan for the City of Glendale* (2011), Table 3-2, 28.

5 City of Glendale Water & Power, *Urban Water Management Plan* (2011), 20.

The groundwater supplies from the Verdugo groundwater basin also contribute to the City's water supplies. The judgment described previously also gives Glendale the right to extract 3,856 afy from this basin annually. The City currently utilizes approximately 2,100 afy from the basin. Production of water has been highly variable in the past due to water quality problems, groundwater levels, and limited extraction capacity. The Verdugo Park Water Treatment Plant and five extraction wells pump, treat, and deliver water to the City for municipal use. The existing wells and Verdugo Park Water Treatment Plant produce approximately 2,000 afy.[6] However, due to extraction problems, additional extraction capacity will need to be developed in order for the City to utilize its full rights to the basin.[7]

Metropolitan Water District

For the five fiscal years ending in June 30, 2010, Glendale received an average of approximately 21,090 afy of MWD supplies, which constituted approximately 66 percent of Glendale's total water supply. MWD supplies are delivered to Glendale through three service connections with capacities of 48, 10, and 20 cubic feet per second (cfs), respectively.[8]

Recycled Water System

The Los Angeles/Glendale Water Reclamation Plant provides recycled water to Glendale for nonpotable uses such as irrigation. The reclamation plant has a capacity of 20-million gallons per day (gpd) and has been delivering recycled water to the City since the late 1970s. Based on a contract between the cities of Los Angeles and Glendale, Glendale is entitled to 50 percent of any effluent produced at the plant. In 2010, the City utilized approximately 1,785 afy from the reclamation plant for nonpotable uses. Treated wastewater not utilized by either Glendale or Los Angeles is discharged into the Los Angeles River. Glendale currently has a "backbone" recycled water distribution system consisting of 21 miles of mains, six pumping plants, and five storage tanks to deliver recycled water to users.[9]

Potable Water System

Currently, approximately 60 percent of the potable water used in the City comes from the MWD.[10] The main water distribution system in Glendale includes 397 miles of water mains, 28 pumping plants, and 30 reservoirs and water tanks. Together, the Glendale Water Treatment Plant and the Verdugo Park Water Treatment Plant provide treatment for up to 9 million gpd of water.[11] Of the approximately

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6 City of Glendale Water & Power, *Urban Water Management Plan* (2011), 21.
7 City of Glendale Water & Power, *Urban Water Management Plan* (2011).
8 City of Glendale Water & Power, *Urban Water Management Plan* (2011), 27.
9 City of Glendale Water & Power, *Urban Water Management Plan* (2011), 55.
10 City of Glendale Water & Power, *Urban Water Management Plan* (2011), 28.
11 Glendale Water & Power, *Annual Report 2012–2013: Water Utility Financials and Auditor's Message* (2014), http://www.glendaleca.gov/home/showdocument?id=11249.

34,546 acre-feet of water consumed by users in fiscal year 2012-2013, residential customers used approximately 29,529 acre-feet, commercial customers used approximately 4,414 acre-feet, industrial customers used approximately 159 acre-feet, and approximately 444 acre-feet was used for irrigation.

The two parcels on the Project site are currently served by an 8-inch water distribution line on West Elk Avenue and an 8-inch sewer line.

Existing Water Use

The Project site is developed with a 1-story building occupied by a wholesale auto parts business and a surface parking lot. **Table 4.7.1-1, Existing Water Demand**, provides an estimate of water use by existing land uses on the Project site. Total water demand generated by existing uses on the site is estimated at 746,425 gallons per year, or approximately 2.3 afy.

Table 4.7.1-1
Existing Water Demand

Use	Area (sq. ft.)	Factor	Daily Demand (gallons/day)	Annual Demand (gallons/year)	Annual Demand (afy)
Commercial building	20,450	100 gpd/ 1,000 sq. ft.	2,045	746,425	2.30
Total			**2,045**	**746,425**	**2.30**

Sources: Los Angeles County Office of the Assessor, Property Assessment Information System (2014); Los Angeles Bureau of Sanitation, Sewage Loading Factors (1996).
Note: afy = acre-feet per year; gpd = gallons per day; sq. ft. = square feet.
125 percent sewage generation loading factor.

Regulatory Setting

Federal

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.[12] The law was amended in 1986 and 1996 and requires a variety of actions to protect drinking water and its sources. SDWA authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants that may be found in drinking water. The EPA, state agencies, and water purveyors work together to ensure that SDWA standards are met.

12 Safe Drinking Water Act, sec. 300f, Definitions.

Clean Water Act

The federal Clean Water Act (CWA), Section 401 regulates the discharges of pollutants into "waters of the US" from any point or nonpoint source.[13] Individual permits are issued for certain defined sources of discharge, while nonpoint source runoff from construction sites and urban development is regulated under a series of general permits. Construction that disturbs one acre or more is regulated under the National Pollutant Discharge Elimination System (NPDES) stormwater program. In the State of California, the program is administered by the local Regional Water Quality Control Board (RWQCB).

Federal Pretreatment Regulations

Part 403 in the Code of Federal Regulations[14] establishes responsibilities of federal, state, and local government, industry, and the public to implement National Pretreatment Standards to control pollutants that pass through or interfere with treatment processes in publicly owned treatment works (POTW) or which may contaminate sewage sludge.

State

Title 17 Potable Water

Potable water supplies are protected by Title 17 of state law, which controls cross-connections with potential contaminants, including nonpotable water supplies such as recycled water. Title 17 specifies the minimum backflow protection required on the potable water system for situations in which there is potential for contamination to the potable water supply.[15]

Title 20 Water Efficiency Standards

Title 20 establishes water efficiency standards (i.e., maximum flow rates) for specific appliances including all new showerheads (2.5 gallons per minute at 80 pounds per square inch), lavatory and kitchen sink faucets (2.2 gallons per minute at 60 pounds per square inch), and commercial prerinse spray valves (1.2 gallons per minute at 60 pounds per square inch).[16] Title 20 also establishes maximum water consumption standards for urinals and water closets (1.6 gallons per flush per unit for most units).

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13 Clean Water Act, sec. 404.

14 Code of Federal Regulations, Protection of Environment, Part 403, General Pretreatment Regulations for Existing and New Sources of Pollution.

15 California Code of Regulations, Group 4, Article 2, Protection of Water System, Table 1.

16 California Code of Regulations, sec. 1605.1 and 1605.3, Federal and State Standards for Federally-Regulated Appliances," and "State Standards for Non-Federally Regulated Appliances.

Title 22 Recycled Water

Title 22 sets bacteriological water quality standards based on the expected degree of public contact with recycled water.[17] Title 22 establishes the quality and/or treatment processes required for an effluent to be used for a specific nonpotable application. The following categories of recycled water are identified:

- Disinfected tertiary recycled water
- Disinfected secondary-2.2 recycled water[18]
- Disinfected secondary-23 recycled water[19]
- Undisinfected secondary recycled water

In addition to recycled water uses and treatment requirements, Title 22 addresses sampling and analysis requirements at the treatment plant, preparation of an engineering report prior to production or use of recycled water, general treatment design requirements, reliability requirements, and alternative methods of treatment.

Urban Water Management Planning Act

The Urban Water Management Planning Act[20] (UWMPA) requires urban water suppliers that provide water for municipal purposes to more than 3,000 customers, or more than 3,000 afy of water, to prepare an Urban Water Management Plan (UWMP). The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands.

The UWMP must include a water supply and demand assessment comparing total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory that the management plans be updated every five years.

The most recent UWMP is the 2010 UWMP, and relevant information was incorporated by reference in this water supply evaluation. The 2010 UWMP is a revision of the 2005 report, outlining the numerous changes that have occurred in the City for the last five years. The City has been actively developing local water resources, advocating the greater use of recycled water, and has also been implementing many of the Best Management Conservation Practices.

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17 California Code of Regulations, Title 22, div. 4, ch. 3, Water Recycling Criteria.

18 The 2.2 refers to the coliform count requirement for the water—2.2 most probable number (MPN)/100 mL.

19 The 23 refers to the coliform count requirement for the wate—23 MPN/100 mL.

20 Department of Water Resources, Urban Water Management Planning Act (commonly referred to as SB 610), California Water Code, sec. 10610–10656.

The 2010 UWMP provides a summary of water supply and demand for the City. The UWMP is also intended to be used as a tool to ensure water reliability given the existing and anticipated future demands. **Table 4.7.1-2, Projected Water Demand by Category (af)**, illustrates the water demand forecast by land use category.

Table 4.7.1-2
Projected Water Demand by Category (af)

Land Use	2010	2015	2020	2025	2030	2035
Single-family residential	10,165	10,703	10,752	10,802	10,852	10,903
Multifamily residential	9,620	10,130	10,177	10,224	10,271	10,319
Commercial/Institutional	3,698	3,894	3,912	3,930	3,948	3,967
Industrial	468	493	495	497	499	502
Irrigation	982	1,034	1,039	1,044	1,049	1,053
Other	1,515	2,613	2,572	2,573	2,578	2,580
TOTAL	**26,448**	**28,866**	**28,946**	**29,070**	**29,198**	**29,323**

Source: City of Glendale Water & Power, The Urban Water Management Plan for the City of Glendale (adopted June 2011), Table 2-1.
Note: Projected water demand is based on a normal projected water year.
af = acre-feet.

Projected water demands can vary by approximately 3 percent in any year due to average historical weather variability in order to adjust for economic and drought conditions. This means water demands under dry weather conditions can be as much as 3 percent higher than normal demands on average; and water demands under wet weather conditions can be as much as 3 percent lower than normal demands on average.[21]

California Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the RWQCBs are the principal state agencies with primary responsibility for the coordination and control of water quality. In the Porter-Cologne Water Quality Control Act (Porter-Cologne), the California State Legislature declared that the "state must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the state from degradation."[22] Porter-Cologne grants the boards authority to implement and enforce water quality laws, regulations, policies, and plans to protect the State's groundwater and surface waters.

21 Glendale Water & Power, *Annual Report 2012–2013* (2014), http://www.glendaleca.gov/government/city-departments/glendale-water-and-power/about-us/annual-reports.

22 State Water Resources Control Board, Porter Cologne Water Quality Control Act, California Water Code, Division 7, Water Quality (effective January 1, 2008).

The Project is located within the Los Angeles Region of the California Regional Water Quality Control Board (Los Angeles RWQCB), which provides guidelines for sewage disposal from land developments. The guidelines provide an explanation of the principal statutory authority and administrative procedures under which the RWQCB will fulfill its responsibilities to protect against pollution, nuisance, contamination, unreasonable degradation of water quality, and violation of water quality objectives, as each may occur from the disposal of sewage from land developments.

Comprehensive Water Legislation

In November 2009, four legislative bills (SBX7-1, SBX7-6, SBX7-7, and SBX7-8) and the supporting bond bill (SBX7-2) were approved by Governor Schwarzenegger, creating a comprehensive water package designed to meet California's water challenges.[23] The legislation establishes the governmental framework to achieve the coequal goals to provide a more reliable water supply to California and restoring and enhancing the Sacramento-San Joaquin Delta ecosystem. The package includes requirements to improve the management of our water resources by monitoring groundwater basins, developing agricultural water management plans, reducing statewide per capita water consumption by 20 percent by 2020, and reporting water diversions and uses in the delta. It also appropriates $250 million for grants and expenditures for projects to reduce dependence on the delta if the bond issue is approved by the voters in the future.

The *Safe, Clean, and Reliable Drinking Water Supply Act of 2014* (SBX7-2) will come before the California voters in November 2014. This act is the product of the 2009 comprehensive legislative package crafted in 2009 to meet California's growing water challenges. This act may be modified in the future depending on climatic conditions in California. If enacted, it would provide funding, $10.15 billion, for California's aging water infrastructure and for projects and programs to improve the ecosystem and water supply reliability for California. The bond bill includes $4 billion for local resources development, $4 billion for ecosystem restoration, and $2 billion for public benefits associated with new surface and groundwater storage projects. These investments will help to reduce seismic risk to delta water supplies, will protect drinking water quality, and will reduce conflict between water management and environmental protection.

Part of the comprehensive water package included SBX7-7, Statewide Water Conservation. This bill creates a framework for future planning and actions by urban and agricultural water suppliers to reduce California's water use. This bill requires the development of agricultural water management plans and requires urban water agencies to reduce statewide per capita water consumption 20 percent by 2020.

23 Department of Water Resources, *California Water Plan Update 2009, Volume 4* (December 2009); Reference Guide, Legislation, 2009 Comprehensive Water Package, Special Session Policy Bills and Bond Summary (November 2009).

Metropolitan Water District of Southern California

Primary Source of Water

GWP relies on MWD sales of water to meet most of its current water supply requirements. For the fiscal year ending June 30, 2013, water deliveries from the MWD average 16.8 million gpd (approximately 18,761 afy), which constituted approximately 59 percent of GWP's total water supply. GWP expects to continue reliance on MWD sales of water to meet most of its future water supply requirements.

History and Background

The MWD was created in 1928 by vote of the electorates of 11 Southern California cities, including the City, under authority of the Metropolitan Water District Act (California Statutes 1927, Chapter 429, as reenacted in 1969 as Chapter 209, as amended [herein referred to as the "Metropolitan Act"]). The Metropolitan Act authorizes MWD to levy property taxes within its service area; establish water rates; impose charges for water standby and service availability; incur general obligation bonded indebtedness and issue revenue bonds, notes, and short-term revenue certificates; execute contracts; and exercise the power of eminent domain for the purpose of acquiring property. In addition, the Metropolitan's Board of Directors ("Metropolitan's Board") is authorized to establish terms and conditions under which additional areas may be annexed to MWD's service area.

The MWD's primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member public agencies. The City is one of the 26 MWD member public agencies. If additional water is available, such water may be sold for other beneficial uses. MWD serves its member agencies as a water wholesaler and has no retail customers.

MWD's charges for water sales and availability are fixed by MWD's Board and are not subject to regulation by the California Public Utilities Commission or any other State or federal agency. MWD imports water from two principal sources: Northern California via the Edmund G. Brown California Aqueduct (the "California Aqueduct") of the State Water Project (SWP) owned by the State of California, and the Colorado River via the Colorado River Aqueduct owned by MWD. MWD owns and operates the Colorado River Aqueduct and has a long-term contract for water (the "State Water Contract") with the Department of Water Resources to receive water from the SWP.

State Water Project

One of MWD's two major sources of water is the SWP, which is owned by the State and operated by the State Department of Water Resources (DWR). The SWP transports water from the San Francisco Bay/Sacramento-San Joaquin River Delta (Bay Delta) south via the California Aqueduct to MWD. The total length of the California Aqueduct is approximately 444 miles.

The State Water Contract, under a 100 percent allocation, provides MWD with 1,911,500 acre-feet of water. Water received from the SWP by MWD over the 10 years from 2002 through 2011, including water from water transfer, groundwater banking, and exchange programs delivered through the California Aqueduct, varied from a low of 908,000 acre-feet in calendar year 2009 to a high of 1,800,000 acre-feet in 2004.

For calendar year 2012, DWR's initial allocation estimate to SWP contractors was 60 percent of contracted amounts. This estimate was reduced to 50 percent of contracted amounts on February 21, 2012, and adjusted upward to 60 percent of contracted amounts as of April 16, 2012. The allocation was increased again on May 23, 2012, to 65 percent of contracted amounts due to April's wetter-than-usual weather. For MWD, the increased 2012 allocation will provide 1,242,475 acre-feet, or 65 percent of its 1,911,500 acre-foot contractual amount. In addition, MWD began 2012 with 200,000 acre-feet of carryover supplies in the San Luis Reservoir, a joint-use facility of the SWP and federal Central Valley Project, all of which can be drawn in 2012.

For calendar year 2013, DWR's allocation to SWP contractors was 35 percent of contracted amounts, reflecting significantly below average precipitation over the entire Sierra Nevada range and well below average statewide snowpack. The 35 percent allocation provided MWD up to 669,025 acre-feet of its 1,911,500 acre-foot contractual amount.

Bay Delta Regulatory and Planning Activities

The California SWRCB is responsible for setting water quality standards and administering water rights throughout the State, and its decisions can affect the availability of water to the MWD from the SWP. The California SWRCB exercises its regulatory authority over the Bay Delta by means of public proceedings leading to regulations and decisions. These include the Bay Delta Water Quality Control Plan ("WQCP"), which establishes the water quality objectives and proposed flow regime of the estuary and water rights decisions, which assign responsibility for implementing the objectives of the WQCP to users throughout the system by adjusting their respective water rights. The California SWRCB is required by law to periodically review its WQCP to ensure that it meets the changing needs of this complex system. Since 2000, the California SWRCB's Water Rights Decision 1641 ("D-1641") has governed the SWP's ability to export water from the Bay Delta for delivery to MWD and other agencies receiving water from the SWP. D-1641 was challenged in a dozen lawsuits, filed primarily by Bay Delta interests and environmental groups. D-1641 was, for the most part, affirmed by the California Courts of Appeal, and the California Supreme Court denied petitions for review of the Courts of Appeal's decision. In December 2006, the California SWRCB adopted limited amendments to D-1641 and identified additional issues to review, which could result in future changes in water quality objectives and flows that could

affect exports of water by the SWP. The California SWRCB is in the process of reviewing salinity objectives in the Bay Delta intended to protect Bay Delta farming and inflow requirements upstream of the Delta to protect aquatic species. In July 2012, the governor and U.S. Interior Secretary outlined revisions and alternative proposals to the proposed Bay Delta Conservation Plan (BDCP). Subsequently, the California Natural Resources Agency released four draft chapters of the BDCP in March 2013. Most recently on December 9, 2013, the State released an updated BDCP, along with a draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) for formal public review. The formal public review and comment period for the draft EIR/EIS was from December 13, 2013 through July 29, 2014. The public comment period closed on July 29, 2014.[24]

Environmental Considerations

The listing of several fish species as threatened or endangered under the federal and/or California Endangered Species Acts (respectively, the "Federal ESA" and the "California ESA" and, collectively, the "ESAs") has impacted SWP operations and limited the flexibility of the SWP.

Federal ESA Litigation

Litigation filed by several environmental interest groups (*NRDC v. Kempthorne* and *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*) in the U.S. District Court for the Eastern District of California alleged that the 2004 and 2005 biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA.

On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment in *NRDC v. Kempthorne*, finding the U.S. Fish and Wildlife Service's (USFWS) biological opinion for Delta smelt to be invalid. The USFWS released a new biological opinion on the impacts of the SWP and Central Valley Project on Delta smelt on December 15, 2008. The MWD, the San Luis & Delta Mendota Water Authority, the Westlands Water District, the Kern County Water Agency, the Coalition for a Sustainable Delta and State Water Contractors, a California nonprofit corporation formed by agencies contracting with DWR for water from the SWP (the "State Water Contractors"), the Family Farm Alliance, and the Pacific Legal Foundation on behalf of several owners of small farms in California's Central Valley filed separate lawsuits in federal district courts challenging the biological opinion, which the federal court consolidated under the caption Delta Smelt Consolidated Cases.

On December 14, 2010, Judge Wanger issued a decision on summary judgment finding that there were major scientific and legal flaws in the Delta smelt biological opinion. The court found that some but not

24 Bay Delta Conservation Plan, "Public Review Draft BDCP EIR/EIS" (2014), http://baydeltaconservationplan.com/PublicReview/PublicReviewDraftEIR-EIS.aspx.

all of the restrictions on project operations contained in the 2008 Delta smelt biological opinion were arbitrary, capricious, and unlawful. On May 18, 2011, Judge Wanger issued a final amended judgment directing the USFWS to complete a new draft biological opinion by October 1, 2011, and a final biological opinion with environmental documentation by December 1, 2013. Later stipulations and orders changed the October 1, 2011 due date for a draft biological opinion to December 14, 2011. A draft biological opinion was issued on December 14, 2011. The draft biological opinion deferred specification of a reasonable and prudent alternative and an incidental take statement pending completion of environmental impact review under the National Environmental Policy Act (NEPA). The federal defendants and environmental interveners appealed the final judgment invalidating the 2008 Delta smelt biological opinion to the U.S. Court of Appeals for the Ninth Circuit. The SWP and Central Valley Project contractor plaintiffs, including MWD, have cross-appealed from the final judgment. Those appeals and cross-appeals are currently pending in the Ninth Circuit. On March 13, 2014, the Ninth Circuit Court reversed Judge Wanger's finding, which had invalidated the USFWS's 2008 biological opinion. The Ninth Circuit Court upheld the scientific basis of the biological opinion. The Ninth Circuit Court affirmed the order that the Bureau of Reclamation must complete an EIS for implementing the Biological Opinion.

On February 25, 2011, the federal court approved a settlement agreement modifying biological opinion restrictions on Old and Middle River flows that would have otherwise applied in spring 2011. The settlement agreement expired on June 30, 2011. SWP and Central Valley Project contractors also moved to enjoin certain fall salinity requirements in the biological opinion that were set to become operable in September and October 2011. After an evidentiary hearing on the water contractors' motion in July 2011, Judge Wanger issued a decision on August 31, 2011, modifying the fall salinity-related requirements in the biological opinion. The effect of the injunction was to reduce water supply impacts from the biological opinion's fall salinity requirements. The federal defendants and the environmental interveners appealed the injunction on fall salinity requirements, but the federal defendants subsequently dismissed their appeal in October 2011. The environmental interveners' appeal to the Ninth Circuit on the fall salinity requirement injunction is pending. The SWP and Central Valley Project contractors have moved to dismiss the environmental interveners' appeal of the fall salinity requirement on the ground that the salinity requirement for 2011 has expired and is therefore invalid.

On April 16, 2008, in *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*, the court invalidated the 2004 National Marine Fisheries Service's (NMFS) biological opinion for the salmon and other fish species that spawn in rivers flowing into the Bay Delta. Among other things, the court found that the no-jeopardy conclusions in the biological opinion were inconsistent with some of the factual findings in the biological opinion, that the biological opinion failed to adequately address the impacts of

SWP and Central Valley Project operations on critical habitat, and that there was a failure to consider how climate change and global warming might affect the impacts of the projects on salmonid species.

The NMFS released a new biological opinion for salmonid species to replace the 2004 biological opinion on June 4, 2009. The 2009 salmonid species biological opinion contains additional restrictions on SWP and Central Valley Project operations. The NMFS calculated that these restrictions will reduce the amount of water the SWP and Central Valley Project combined will be able to export from the Bay Delta by 5 to 7 percent. DWR had estimated a 10 percent average water loss under this biological opinion. Six lawsuits were filed challenging the 2009 salmon biological opinion. These various lawsuits have been brought by the San Luis & Delta Mendota Water Authority, the Westlands Water District, the Stockton East Water District, the Oakdale Irrigation District, the Kern County Water Agency, the State Water Contractors, and the Metropolitan Water District. The court consolidated the cases under the caption: Consolidated Salmonid Cases.

On May 25, 2010, the court granted the plaintiffs' request for preliminary injunction in the Consolidated Salmonid Cases, restraining enforcement of two requirements under the salmon biological opinion that limit exported water during the spring months based on San Joaquin River flows into the Bay Delta and reverse flows on the Old and Middle Rivers. Hearings on motions for summary judgment in the Consolidated Salmonid Cases were held on December 16, 2010. On September 20, 2011, Judge Wanger issued a decision on summary judgment, finding that the salmon biological opinion was flawed, and that some but not all of the project restrictions in the biological opinion were arbitrary and capricious. On December 12, 2011, Judge O'Neill (who was assigned to this case following Judge Wanger's retirement) issued a final judgment in the Consolidated Salmonid Cases.

The final judgment remands the 2009 salmon biological opinion to the NMFS and directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA.

On January 19, 2012, Judge O'Neill approved a joint stipulation of the parties that specifies how to comply with one of the salmon biological opinion restrictions that applies to water project operations in April and May of 2012. In January and February 2012, the federal defendants and environmental interveners filed appeals of the final judgment in the Consolidated Salmonid Cases, and the SWP and Central Valley Project contractors filed cross-appeals. Those appeals and cross-appeals are now pending in the Ninth Circuit. The original date for the oral argument was moved from February 10, 2014 to September 15, 2014 in anticipation of the March 2014 decision in the Delta Smelt Consolidated Cases appeal.

On November 13, 2009, the Center for Biological Diversity filed separate lawsuits challenging the USFWS's failure to respond to a petition to change the Delta smelt's federal status from threatened to endangered and the USFWS's denial of federal listing for the longfin smelt. On April 2, 2010, the USFWS issued a finding that uplisting the Delta smelt was warranted but precluded by the need to devote resources to higher priority matters. This "warranted but precluded" finding did not change the regulatory restrictions applicable to Delta smelt. For the longfin smelt litigation, a settlement agreement was approved on February 2, 2011. Under the agreement, the USFWS agreed to complete a range-wide status review of the longfin smelt and consider whether the Bay Delta longfin smelt population, or any other longfin smelt population from California to Alaska, qualifies as a "distinct population" that warrants federal protection. On April 2, 2012, the USFWS issued its finding that the Bay Delta longfin smelt population warrants protection under the ESA but is precluded from listing as a threatened or endangered species by the need to address other higher priority listing actions. The review identified several threats facing longfin smelt in the Bay Delta, including reduced freshwater Bay Delta outflows. The finding includes the determination that the Bay Delta longfin smelt will be added to the list of candidates for ESA protection, where its status will be reviewed annually.

California ESA Litigation

In addition to the litigation under the Federal ESA, other environmental groups sued DWR on October 4, 2006, in the Superior Court of the State of California for Alameda County alleging that DWR was "taking" listed species without authorization under the California ESA. This litigation (*Watershed Enforcers, a project of the California Sportfishing Protection Alliance v. California Department of Water Resources*) requested that DWR be mandated to either cease operation of the SWP pumps, which deliver water to the California Aqueduct, in a manner that results in such "taking" of listed species or obtain authorization for such "taking" under the California ESA. On April 18, 2007, the Alameda County Superior Court issued its Statement of Decision finding that DWR was illegally "taking" listed fish through operation of the SWP export facilities. The Superior Court ordered DWR to "cease and desist from further operation" of those facilities within 60 days unless it obtained take authorization from the California Department of Fish and Game.

DWR appealed the Alameda County Superior Court's order on May 7, 2007. This appeal stayed the order pending the outcome of the appeal. The Court of Appeal stayed processing of the appeal in 2009 to allow time for DWR to obtain incidental take authorization for the Delta smelt and salmon under the California ESA, based on the consistency of the federal biological opinions with California ESA requirements ("Consistency Determinations"). After the California Department of Fish and Game issued the Consistency Determinations under the California ESA, authorizing the incidental take of both Delta smelt and salmon, appellants DWR and State Water Contractors dismissed their appeals of the

Watershed Enforcers decision. The Court of Appeal subsequently issued a decision finding that DWR was a "person" under the California ESA and subject to its take prohibitions, which was the only issue left in the case. The State Water Contractors and Kern County Water Agency have filed suit in State courts challenging the Consistency Determinations under the California ESA that have been issued for both Delta smelt and salmon. Those lawsuits challenging the Consistency Determinations are pending. The parties are continuing discussions of adjustments to the incidental take authorizations in light of the summary judgment ruling in the Delta Smelt Consolidated Cases and the Consolidated Salmonid Cases, discussed under the heading Federal ESA Litigation, discussed previously.

The California Fish and Game Commission listed the longfin smelt as a threatened species under the California ESA on June 25, 2009. On February 23, 2009, in anticipation of the listing action, the California Department of Fish and Game issued a California ESA section 2081 incidental take permit to DWR authorizing the incidental take of longfin smelt by the SWP. This permit authorizes continued operation of the SWP under the conditions specified in the section 2081 permit. The State Water Contractors filed suit against the California Department of Fish and Game on March 25, 2009, alleging that the export restrictions imposed by the section 2081 permit have no reasonable relationship to any harm to longfin smelt caused by SWP operations, are arbitrary and capricious, and are not supported by the best available science. The lawsuit is pending and the administrative record for the cases has been completed. The lawsuit is pending and the administrative record for the cases has been completed.[25]

State Water Project Operational Constraints

DWR has altered the operations of the SWP to accommodate species of fish listed under the ESAs. These changes in project operations have adversely affected SWP deliveries. The impact on total SWP deliveries attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be 1 million acre-feet in an average year, reducing SWP deliveries from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology, and are estimated to range from 0.3 million acre-feet during critically dry years to 1.3 million acre-feet in above normal water years. SWP deliveries to contractors were reduced by approximately 285,000 acre-feet of water in calendar year 2011 as a result of pumping restrictions, with 135,000 acre-feet of export reductions in January and February, and 150,000 acre-feet in the fall. Despite operational restrictions in 2011, high flows from above normal precipitation in late 2010 and early 2011 reaching the Bay Delta resulted in above average storage levels remaining in Lake Oroville through May 2012. As of January

25 Metropolitan Water District of Southern California, *Second Supplement Dated March 13, 2014 to Official Statement Dated February 12, 2014* (March 13, 2014).

2014, the storage levels remaining in Lake Oroville are 32 percent of total capacity as a result of well below average precipitation and snowpack levels.[26]

Operational constraints likely will continue until long-term solutions to the problems in the Bay Delta are identified and implemented. The Delta Vision process, established by then-Governor Schwarzenegger, was aimed at identifying long-term solutions to the conflicts in the Bay Delta, including natural resource, infrastructure, land use, and governance issues. In addition, State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan, which is aimed at addressing ecosystem needs and securing long-term operating permits for the SWP, and includes the Delta Habitat Conservation and Conveyance Program (DHCCP) (together, the "BDCP"). The DHCCP's current efforts consist of the preparation of the environmental documentation and preliminary engineering design for Bay Delta water conveyance and related habitat conservation measures under the BDCP. In July 2012, the governor and U.S. Interior Secretary outlined revisions and alternative proposals to the proposed Bay Delta Conservation Plan (BDCP). Subsequently, the California Natural Resources Agency released four draft chapters of the BDCP in March 2013. Most recently on December 9, 2013, the State released an updated BDCP, along with a draft EIR/Environmental Impact Statement (EIS) for formal public review. The formal public review and comment period for the draft EIR/EIS was from December 13, 2013 through July 29, 2014.

Other issues, such as the decline of some fish populations in the Bay Delta and surrounding regions and certain operational actions in the Bay Delta, may significantly reduce MWD's water supply from the Bay Delta. SWP operational requirements may be further modified under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Biological opinions or incidental take authorizations under the Federal ESA and the California ESA might further adversely affect SWP and Central Valley Project operations. Additionally, new litigation, listings of additional species, or new regulatory requirements could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage, or other operational changes impacting water supply operations. MWD has indicated that it cannot predict the ultimate outcome of any of the litigation or regulatory processes described previously, but believes they could have a materially adverse impact on the operation of the SWP pumps, MWD's SWP supplies, and MWD's water reserves.

26 Department of Water Resources, "Lake Oroville—Storage Conditions as of August 25, 2014," accessed August 2014, http://cdec.water.ca.gov/cdecapp/resapp/resDetailOrig.action?resid=ORO.

"Area of Origin" Litigation

Four SWP contractors located north of the SWP's Bay Delta pumping plant filed litigation against DWR on July 17, 2008, asserting that since they are located in the "area of origin" of SWP water, they are entitled to receive their entire contract amount before any water is delivered to contractors south of the Bay Delta. If the plaintiffs are successful in this litigation, SWP water available to MWD in a drought period could be reduced by approximately 25,000 afy of a multiyear drought or by as much as 40,000 acre-feet in an exceedingly dry year. MWD and 12 other SWP contractors located south of the Bay Delta filed motions to intervene in this litigation, which were granted on February 25, 2009. In May 2012, the parties reached an agreement, in principle, that plaintiffs will dismiss the action with prejudice and agree to certain limitations on asserting area of origin arguments in the future; in return, DWR and the interveners will agree to operational changes that will increase the reliability of plaintiffs' SWP supplies at little or minimal cost to other SWP water contractors. The DWR completed and adopted a Final Initial Study/Mitigated Negative Declaration (IS/MND) in September 2013 for the SWP Allocation Settlement Agreements. The Final IS/MND which describes the potential environmental impacts as a result of the proposed changes to SWP operations determined there were no potentially significant impacts.

Colorado River Aqueduct

MWD has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River or its tributaries is also available to other users in California, as well as to users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming, resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. The Colorado River Aqueduct, which is owned and operated by MWD, transports water from the Colorado River approximately 242 miles to its terminus at Lake Mathews in Riverside County.

Historically, MWD had been able to take full advantage of the availability of surplus water and apportioned but unused water. However, other users increased their use of water from the Colorado River beginning in 1998. Although the use of water is expected to fluctuate annually, this trend is projected to continue in the future. In addition, a severe drought in the Colorado River Basin has reduced water supplies.

MWD has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water. Under a 1988 water conservation agreement between Metropolitan and the Imperial Irrigation District (IID), IID has constructed and is operating a number of conservation projects that are currently conserving approximately 100,000 afy of water.

Management of California's Colorado River Water Supply

In 2003, California had to reduce its use of Colorado River water, and since that time has been limited to its basic apportionment of 4.4 million afy. To maintain reliable deliveries to urban agencies, the State has implemented a number of agricultural to urban water conservation and transfer programs. Those programs included the lining of the All-American and Coachella Canals, funding water conservation measures in the Imperial Valley, and implementing a land fallowing and crop rotation program with Palo Verde Irrigation District. Additionally, in 2007, agencies were allowed to store conserved water in Lake Mead for future use. As of 2013, MWD has more than 408,000 acre-feet of storage credits in Lake Mead.[27]

SWP Water Delivery Reliability

In the Draft SWP Delivery Reliability Report 2013, DWR presents its method for calculating SWP delivery reliability, the factors affecting SWP delivery reliability, and the limitations to estimating future water delivery reliability. In the report, "water delivery reliability" is defined as the annual amount of water that can be expected to be delivered with a certain numeric frequency. SWP delivery reliability is calculated using CALSIM II, a computer model jointly developed by DWR and Reclamation, which simulates operation of the CVP/SWP system based upon 82 years of historic data. The annual amounts of SWP water deliveries are ranked from smallest to largest and a probability is calculated for each amount. These results are then displayed graphically as an exceedance plot and presented in tabular format.

The amount of SWP water supply delivered to the SWP Contractors in a given year depends on the demand for the supply; the amount of rainfall, snowpack, runoff, water in storage, pumping capacity from the Delta; and legal constraints on SWP operation. According to DWR, more generally, water delivery reliability depends on three general factors: (1) the availability of water at the source; (2) regulatory restrictions on SWP Delta exports (imposed by federal biological opinions [BOs] and State water quality plans); and (3) the effects of climate change.

SWP Availability of Source Water

As to the availability of source water, the factors of uncertainty include the inherent annual variable location, timing, amount, and form of precipitation in California. The second source of uncertainty is due to global climate change. Current literature suggests that global warming is likely to significantly impact the hydrological cycle, changing California's precipitation pattern and amount from that shown by the

27 Metropolitan Water District of Southern California, "Water Resource Management," ch. 3 in *Annual Report 2013* (2013), 34.

historical record. According to DWR, there is evidence that some changes have already occurred, such as an earlier beginning of snowmelt in the Sierras, an increase in water runoff as a fraction of the total runoff, and an increase in winter flooding frequency. More variability in rainfall, wetter at times, and drier at times would place more stress on the reliability of existing flood management and water supply systems, such as the SWP.

SWP Ability to Convey Source Water

As to the ability to convey source water to the desired point of availability, DWR reports that an uncertainty factor exists with respect to SWP operations, because they are closely regulated by Delta water quality standards established by the SWRCB and set forth in Water Rights Decision 1641. DWR also reports other factors of uncertainty due to the continuing unexplained decline in many pelagic (open water) fish species, including the Delta smelt since the early 2000s, and the legal challenges to SWP operation and ongoing planning activities related to the Delta. Other uncertainties include future sea level rise associated with global climate change, which could increase salinity in the Delta, and the risk of interruptions in SWP diversions from the Delta due to levee failures. The referenced litigation challenges are described in more detail in the *Draft State Water Project Delivery Reliability Report 2013*.

Demand for System Water

As to estimating future demand for SWP water, DWR has identified uncertainty factors, including population growth, water conservation, recycling efforts, other supply sources, and global climate change. In addition to the previously identified factors affecting water delivery reliability, DWR has reported other limitations and assumptions, all of which are explained in the *Draft State Water Project Delivery Reliability Report 2013*. This report has also identified the status of two large-scale plans for the delta as underway with objectives related to providing a sustainable delta over the long term. These planning efforts may propose changes to SWP operations, which in turn could affect SWP delivery reliability. The planning efforts are the Delta Plan and the Bay Delta Conservation Plan. According to DWR, each planning effort could affect SWP and CVP operations in the Delta and each are explained in detail in the *Draft State Water Project Delivery Reliability Report 2013*.

California Drought

On January 17, 2014, California Governor Brown declared a drought state of emergency, and directed state officials to take all necessary actions to prepare for these drought conditions.[28] State agencies, led by the Department of Water Resources, are in the process of executing a statewide water conservation

28 Office of the Governor, "Governor Brown Declares Drought State of Emergency" (January 17, 2014), http://gov.ca.gov/news.php?id=18368.

campaign, calling on Californians to reduce their water usage by 20 percent. On April 25, 2014, Governor Brown issued an executive order to strengthen the state's ability to manage water and habitat in drought conditions and called on all Californians to redouble their efforts to conserve water.[29]

On July 15, 2014, an emergency regulation to increase conservation practices for all Californians went into effect. This regulation establishes the minimum level of activity that residents, businesses and water suppliers must meet as the drought deepens, and will be in effect for 270 days unless extended or repealed. Larger water suppliers are required to activate their Water Shortage Contingency Plan to a level where outdoor irrigation restrictions are mandatory. In communities where no water shortage contingency plan exists, the regulation requires that water suppliers either limit outdoor irrigation to twice a week or implement other comparable conservation actions. Finally, large urban water suppliers must report water use on a monthly basis to track progress beginning August 15.[30]

As of June 17, 2014, the statewide snowpack's water content, which normally provides about a third of the water for California's farms and cities, is at 18 percent of the average for the date. The northern Sierra snowpack, which helps fill the state's major reservoirs which are currently only half full, shows just seven percent of average water content.[31] Although water conservation efforts by a majority of water suppliers in California show that water use has declined statewide by five percent, measured water use has not yet met the 20 percent voluntary reduction of water use called for by Governor Brown.[32]

City of Glendale

Glendale's water system is also interconnected with the City of Burbank and the Crescenta Valley Water District for short-term/emergency water service.[33] When the need arises, these connections can be opened to deliver water into the Glendale distribution system to supplement demands and vice versa. These should be viewed as only short-term transfer of water.

For the long term, MWD is engaged in "out-of-area" dry transfer and exchanges to improve local water supply reliability. These are discussed in MWD's Regional 2010 UWMP and are summarized in Chapter 3,

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29 Office of the Governor, "Governor Brown Issues Executive Order to Redouble State Drought Actions" (April 25. 2014), http://www.ca.gov/drought/topstory/top-story-6.html.

30 Office of the Governor, "State Water Board Approves Emergency Regulation to Ensure Agencies and State Residents Increase Water Conservation" (July 29, 2014), http://www.ca.gov/Drought/news/story-59.html.

31 Office of the Governor, "Year's Final Snow Survey Comes Up Dry" (May 1, 2014), http://www.ca.gov/Drought/news/story-41.html.

32 Office of the Governor, "Water Use Declines 5 Percent Statewide" (June 17, 2014), http://www.ca.gov/Drought/topstory/top-story-8.html.

33 City of Glendale Water and Power, *Urban Water Management Plan* (2011), Figure 3.2.

Implementing the Plan. Glendale does not have the basic capability to implement these types of programs; it relies on MWD to perform these activities.

The interconnection with Crescenta Valley Water District (CVWD) was installed in 2004 and allows for CVWD to receive up to 5.0 cfs from Glendale. The preliminary design for an interconnection with Los Angeles has begun.

Glendale General Plan Policies

Goals and policies that relate to water services are set forth by the City of Glendale in the General Plan Community Facilities Element. An analysis of the consistency of these applicable goals and policies with the Project is provided in **Section 4.3, Land Use and Planning**. As discussed in **Section 4.3**, the Project does not conflict with the City's General Plan.

Glendale Water Conservation Policies

Glendale has adopted a mandatory water conservation plan. During drought periods, or periods of mandatory water conservation and implementation of the City's Mandatory Water Conservation Plan, penalties are imposed on customers who do not comply with the water conservation provisions.[34] The City's Water Conservation Ordinance, Section 13.36 of the Glendale Municipal Code, describes programs the City is implementing to reduce the demand for water. For example, this section of the Code contains a "no water waste" policy, which outlines prohibited uses of water such as hosing of sidewalks, walkways, driveways, or parking areas. This section also prohibits landscape irrigation between 9:00 AM and 6:00 PM, limits the days of the week for landscape irrigation, failure to repair leaks of any sort, and water fountains without a recirculating water system.[35]

The City has encouraged voluntary conservation through the implementation of Phase I of the Water Conservation Ordinance, preventing wasteful water use. As noted previously, the emergency regulation, which was approved on July 15, 2014, requested that all water agencies and customers increase water conservation. Therefore, the Glendale City Council declared Phase II of the GWP Water Conservation Ordinance and water use restrictions, which became effective August 1, 2014. Phase II of the Mandatory Water Conservation Ordinance limits outside water use (e.g. watering landscapes) to three days a week, Tuesdays, Thursdays, and Saturdays for 10 minutes at each watering station.[36]

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34 City of Glendale Water and Power, *Urban Water Management Pla*n (2011), Figure 3.2.

35 Glendale Municipal Code, sec. 13.36.060, "No Water Waste Policy."

36 City of Glendale, Glendale Water and Power, "Glendale City Council Approves Phase II of Mandatory Water Conservation Ordinance" (July 30, 2014), http://www.glendaleca.gov/Home/Components/News/News/858/1097.

All commercial and industrial customers of the Public Service Department using 25,000 billing units per year (1 unit equals 748 gallons) or more must submit a quarterly water conservation plan to the City Manager's Office and the Director of GWP.

The existing recycled water system is only available in limited sections of the City. Where recycled water use is feasible, the City requires its use in lieu of potable water. Service connections and extensions to areas outside of this system are subject to approval by the Director of Public Works. Recycled water facilities are required in new developments when it is determined that recycled water would be supplied in the future, regardless of whether or not the area is being served by the City's recycled water system during new construction.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines a project may be deemed to have a significant impact on water supply, if it would:

- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed
- Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (issue is addressed in **Section 6.0, Effects Not Found To Be Significant**)

Methodology

Existing and future water demand calculations were based on water use factors by land use previously used and approved by GWP. The water use factors were determined by assuming 125 percent of the wastewater generation rates provided by the City of Los Angeles. To demonstrate how water demand resulting from implementation of the Project would be accommodated, the evaluation was based on the conceptual development program described in **Section 3.0, Project Description**.

Impact Analysis

Threshold: **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.**

Construction Water Demand

Demolition of the existing building and surface parking lot, grading, and construction activities associated with the Project would require the use of water for dust control and clean-up purposes. The

use of water for construction purposes would be short-term in nature and the amount would be much less than water consumption during Project operation. All applicable local, State and federal requirements and Best Management Practices (BMPs) would be incorporated into construction of the Project. Therefore, construction activities are not considered to result in a significant impact on the existing water system or available water supplies.

Operational Water Demand

As noted previously, residential land uses require significantly more water consumption than commercial uses. New development on the Project site would result in an increase in demand for indoor potable uses, including landscape irrigation, maintenance, and other activities on the site. Projected water demand for the Project would be 12.49 afy as indicated in **Table 4.7.1-3, Projected Water Demand**.

Table 4.7.1-3
Projected Water Demand

Use	Size of Use	Demand Factor	Daily Demand (gpd)	Annual Demand (gallons)	Annual Demand (afy)
Studio	1 du	100/unit[1]	100	36,500	0.11
One bedroom	18 du	150/unit[1]	2,700	985,500	3.02
Two bedroom	52 du	200/unit[1]	10,400	3,796,000	11.659
Subtotal			*13,200*	*4,818,000*	*14.79*
Credit *(Existing Development)*			(*2,045*)	(746,425*)*	*(2.30)*
Total			**11,155**	**4,071,575**	**12.49**

Note: du = dwelling unit; gpd = gallons per day; afy = acre feet per year
[1] *125 percent sewage generation loading factor.*

This amount represents an estimated net increase of 4,071,575 million gallons per year or 12.49 afy for the Project site compared to existing uses.

The Project would add 71 residential units to the site which currently has no dwelling units. The net increase of 12.49 afy accounts for the 71 residential units that would replace the wholesale auto parts business and accompanying surface parking lot on the Project site. According to the City's UWMP, water supplies in the City would remain adequate through the year 2035 to meet the demands of existing uses and projected growth, with a small surplus at that time. For this reason, the impact of the Project on the City's water supply would be less than significant.

Normal Weather Conditions

Glendale has identified an adequate supply of water to meet future City demands under normal conditions. As indicated in **Table 4.7.1-4, Normal Weather Water Supply and Demand Comparison**, a surplus exists that provides a reasonable buffer of approximately 1,500 to 2,200 afy of water. Future water demand in the City is based on projected development contained in the General Plan. As discussed previously, the Project water demand was accounted for in the 2010 UWMP. For purposes of this assessment, the demand of the Project was assumed not to have been included in this demand projection. However, even with the addition of 12.49 afy of demand generated by the Project, there is ample supply to meet remaining City demand under normal weather conditions.

Table 4.7.1-4
Normal Weather Water Supply and Demand Comparison

Source	2010	2015	2020	2025	2030	2035
Supply						
San Fernando Wells	7,701	7,800	7,800	7,800	7,800	7,800
Verdugo Wells	2,087	3,856	3,856	3,856	3,856	3,856
MWD	16,550	17,620	17,755	17,890	18,025	18,162
Recycled Water	1,662	1,662	1,662	1,662	1,662	1,662
Total Supply	28,000	30,938	31,073	31,208	31,343	31,480
Demand	26,448	28,866	28,946	29,070	29,198	29,323
Difference (Surplus)	**1,552**	**2,072**	**2,127**	**2,138**	**2,145**	**2,157**

Source: Glendale Water & Power, The Urban Water Management Plan for the City of Glendale (adopted June 2011), Tables 3-3 and 3-4.
Note: MWD = Metropolitan Water District of Southern California.

Dry Weather Conditions

Table 4.7.1-5, Multiple Dry-Year Period Water Supply and Demand Comparison, provides a multiple-year water supply that Glendale has identified under average drought conditions. Water supply would increase during all five years due to more imported supplies. If there is a need for significant demand reduction efforts, various voluntary or mandatory conservation efforts could be implemented.

Table 4.7.1-5
Multiple Dry-Year Period Water Supply and Demand Comparison

	2016	2017	2018	2019	2020
Supply	30,696	31,006	31,319	31,636	31,955
Demand	28,640	28,929	29,221	29,517	29,815
Difference (Surplus)	**2,056**	**2,077**	**2,098**	**2,119**	**2,141**

Source: Glendale Water & Water, The Urban Water Management Plan for the City of Glendale (adopted June 2011), Table 3-11.

Water supplies from the San Fernando and Verdugo Basins and recycled water would remain unaffected by drought conditions. If there is a shortage in water supply from MWD, the Glendale distribution system could be affected. However, MWD's completion of the Diamond Valley Reservoir near Hemet added to the reliability of MWD's supplies. This reservoir, plus other MWD storage/banking operations would be able to meet demands reliably. MWD is also proposing contracts with its member agencies to supply water, including supply during drought conditions. These contracts will define, by agreement, the MWD's obligation to provide "firm" water supply to the City.

It is anticipated that during any multiple-year drought, the City would have sufficient water supply to meet demand. According to the 2010 UWMP, the City would use a smaller percentage of MWD water supplies in the future compared to its current use. With the City's reduction of dependency on imported MWD supplies, there would be a higher level of reliable water supplies to meet demand during drought conditions.

As indicated in **Table 4.7.1-5**, the City would continue to have adequate supply to meet citywide demand under drought conditions. Similar to normal weather conditions, even with the addition of 12.48 afy of demand generated by the Project, there is sufficient supply to meet City demand under drought conditions.

As indicated previously, even with implementation of the Project, the City would continue to have adequate supply to meet Citywide demand under normal and drought conditions.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Threshold: **Have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements needed.**

Development of related projects would result in a demand of approximately 1,042.57 afy of water as indicated in **Table 4.7.1-6, Water Demand of Related Projects**. Combined with the increase of 12.49 afy generated by the Project, the cumulative amount demanded by the Project and related projects would generate an overall future water demand of 1,055.06 afy.

Table 4.7.1-6
Water Demand of Related Projects

Use	Unit	Demand Factor[1]	Daily Demand (gpd)	Annual Demand (gpy)	Annual Demand (afy)
Multifamily residential	4,135 du	200/unit	827,000	301,855,000	926.36
Live/work	51 du	100/unit	5,100	1,861,500	5.71
Commercial	355,329 sq. ft.	100/1,000 sq. ft.	35,532.90	12,969,508.5	39.80
Restaurant	4,599 sq. ft.	100/1,000 sq. ft.	459.90	167,863.5	0.52
Hotel	266 rm	162.5/room	43,225	15,777,125	48.42
Cinema/studio	9,690 sq. ft.	1 gallon per 1,000 sq. ft.	9,690	3,536,850	10.85
Church	9,500 sq. ft.	200/1,000 sq. ft.	1,900	693,500	2.13
Office	17,802 sq. ft.	187.5/1,000 sq. ft.	3,337.88	1,218,324.38	3.74
Medical Office	18,000 sq. ft.	250/1000 sq. ft.	4,500	1,642,500	5.04
Total			930,745.68	339,722,171.4	**1,042.57**

Note: afy = acre-feet per year; du = dwelling unit; gpd = gallons per day; gpy = gallons per year; sq. ft. = square feet; rm = room
[1] 125 percent sewage generation loading factor.

Glendale has identified sufficient water supplies to meet additional demand associated with the Project and through General Plan's 2035 projections, which includes related projects. As discussed previously, the water supplies would remain adequate through the year 2035 to meet the demands of existing uses and projected growth, with a small surplus at that time. In addition, MWD water has been and continues to become a more reliable source through the construction of new water storage facilities and agreements with member agencies. Therefore, the cumulative impact of the Project and related projects to the water supply is less than significant, and the Project's contribution to this impact would not be cumulatively considerable.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

ENVIRONMENTAL SETTING

Existing Conditions

The City of Glendale Public Works Department provides sewer collection and treatment services in the City of Glendale. Sewage from Glendale and other jurisdictions is treated by the City of Los Angeles Hyperion System, which includes the Los Angeles/Glendale Water Reclamation Plant, located outside the Glendale City limits in Los Angeles, and the Hyperion Treatment Plant, located in Playa del Rey.[37] The City of Glendale and the City of Los Angeles jointly own and share operating capacity of the Los Angeles/Glendale Water Reclamation Plant. Glendale entered into an amalgamated treatment and disposal agreement (Amalgamated Agreement) with the City of Los Angeles, which eliminates entitlements and reduces limitations on the amount of sewage discharged into the Hyperion system. Any Glendale sewage not treated at the Los Angeles/Glendale Water Reclamation Plant is treated at the Hyperion Treatment Plant.

Sewage from the Project would be treated by the Hyperion Treatment Plant. The Hyperion Treatment Plant has a dry-weather design capacity of 450 million gallons per day (gpd) and is currently operating below its design capacity at 362 million gpd.[38] Glendale has access to this excess capacity upon payment of Amalgamated Sewerage System Facilities Charges to the City of Los Angeles.

Approximately 360 miles of underground sewer mains ranging in size from 8 inches to 42 inches in diameter are located throughout Glendale.[39] The City owns and maintains the sewer lines within its public rights-of-way. These sewer mains collect sewage and convey it to trunk lines and into regional interceptor sewers for conveyance to either the Los Angeles/Glendale Water Reclamation Plant or the Hyperion Treatment Plant for treatment. The sewer system uses the rolling topography in Glendale to allow gravity to convey the majority of its sewage with minimum pumping costs. Sewage from connections located north of the Los Angeles/Glendale Water Reclamation Plant generally flows to this facility, and connections located south of the Los Angeles/Glendale Water Reclamation Plant flow to the Hyperion Treatment Plant. However, if the Los Angeles/Glendale Water Reclamation Plant is at capacity,

37 City of Glendale Water & Power, *Urban Water Management Plan* (2011), 52.

38 City of Los Angeles Department of Public Works, Bureau of Sanitation, "About Wastewater Facts and Figures" (accessed 2014), http://www.lacitysan.org/wastewater/factsfigures.htm.

39 City of Glendale, Department of Public Works, "Public Works" (accessed 2014), http://www.glendaleca.gov /government/departments/public-works.

sewage generated in the northern portion of the City will be pumped to the Hyperion Treatment Plant.[40]

To estimate the amount of sewage currently generated by the existing uses at each site, sewage generation factors were applied to each existing use by land-use type. As indicated in **Table 4.7.2-1, Estimated Existing Sewage Generation,** the current onsite sewage generation is approximately 1,636 gpd.

Table 4.7.2-1
Estimated Existing Sewage Generation

Use	Area (sq. ft.)	Loading Factor	Daily Demand (gpd)	Annual Demand (gpy)
Commercial building (wholesale auto parts business)	20,450	80 gpd/1,000 sq. ft.	1,636	597,140
Total			**1,636**	**597,140**

Source: Los Angeles Bureau of Sanitation Sewage Loading Factors.
Note: gpd = gallons per day; gpy = gallons per year; sq. ft. = square feet.

Regulatory Setting

Goals and policies that relate to the City's sewage collection and treatment system are set forth by the City in the General Plan Community Facilities Element. An analysis of the consistency of these applicable goals and policies with the Project is provided in **Section 4.3**, **Land Use and Planning.** As discussed in **Section 4.3**, the Project does not conflict with applicable General Plan goals and policies relating to the City's sewage collection and treatment system.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines a project may be deemed to have a significant impact on wastewater, if it would:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (issue is addressed in **Section 6.0, Effects Not Found To Be Significant**).

40 Maurice Oillataguerre, Senior Environmental Program Specialist, City of Glendale, Public Works Department, personal communication with Meridian Consultants, October 2013.

- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Methodology

The impact of the Project on the existing sewage collection and treatment system was determined by evaluating existing sewage treatment and sewage conveyance capacity. To perform this evaluation, estimates of both existing and future sewage amounts were calculated. The projected increase in sewage from the Project site was then compared against existing system capacity to determine if sufficient capacity would be available to serve the Project.

Project Impacts

Threshold: **Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

As discussed previously, sewage from the Project site goes to the Hyperion Treatment Plant, which Glendale has access to through the Amalgamated Agreement. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, adequate capacity exists to treat Project-generated average effluent of 8,924 gpd as shown in **Table 4.7.2-2, Projected Sewage Generation**. Therefore, the Project would not require the expansion or construction of sewage treatment facilities, the construction of which could cause significant environmental effects.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

The Project would, on average, generate 8,924 gpd of sewage as shown in **Table 4.7.2-2, Projected Sewage Generation**.

Table 4.7.2-2
Projected Sewage Generation

Use	Units	Average Loading Factor	Daily Generation (gpd)
Studio	1 du	80 gpd/unit	80
One bedroom	18 du	120 gpd/unit	2,160
Two bedroom	52 du	160 gpd/unit	8,320
Subtotal			10,560
Credit *(Existing Development)*			(1,636)
Total			**8,924**

Note: *Sewage generation rates were based on the City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates Table which was effective June 6, 1996.*
du = dwelling unit; gpd = gallons per day; sq. ft. = square feet.

Sewage generated on the Project site would be conveyed to the Hyperion Treatment Plant for treatment, as discussed previously. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, the addition of approximately 8,924 gallons of average Project sewage per day would not result in the plant exceeding capacity. Therefore, adequate capacity exists to treat the sewage increase generated by the Project, and the impact of the Project on the sewage treatment system is less than significant.

In addition, the City imposes a sewer capacity increase fee on new developments, based on a computer modeling assessment of Glendale's sewer system's hydraulic capacity. The fee is charged when development of a parcel leads to an increase in the volume of wastewater discharged to the collection system. The City has elected to calculate these fees based on proportional increases in wastewater flow, in order to impose the fee in an equitable manner.

The City's methodology for assessing the fee began with dividing Glendale's sewer system into eight drainage basins, and then determining the capital budget required to expand the capacity of each basin over the next 20 years, and the corresponding future peak flow for each basin.[41] The Project would be responsible for a percentage of the total capital budget for the sewer basin in which it is located, which would result in a capital mitigation fee assessed to the Project. The collected fees, which would be charged for each proposed development, will be deposited into a specially created account to be used to fund capacity improvements of the City-wide sewer system.

41 City of Glendale Municipal Code, Chapter 13.40 Sewer System, Article II.

In the event the City receives proposals for new developments not considered in the current hydraulic analysis, intermediate and more frequent hydraulic analyses will be performed to evaluate capacity in the given drainage basin. As part of the City's annual Capital Improvement Program (CIP), the City Council annually budgets CIP programs, including, when necessary, funds for the balance of the cost of increasing the sewer capacity for any of the drainage basins. The City's Public Works Engineering Department will design and construct the necessary improvements using the impact fees. The payment of this fee is available to reduce potential impacts of the Project on the sewer conveyance system, thus Project impacts would be less than significant with implementation of the sewer conveyance system mitigation fee.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure would reduce Project-related sewer impacts.

4.7.2-1 The project applicant shall pay a sewer capacity increase fee for the Project's sewage increase to the lines within the specific drainage basin where the particular project is located to alleviate sewer impacts. These collected fees shall be deposited by the City of Glendale into a specially created account to be used to fund capacity improvements to the drainage basin.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Threshold: **Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

As discussed previously, when the Los Angeles/Glendale Water Reclamation Plant reaches capacity, the Hyperion Treatment Plant, which Glendale has access to through the Amalgamated Agreement, would treat a majority of the waste generated by the Project and related projects. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, adequate capacity exists to treat the 744,900 gpd of effluent generated by cumulative development (see **Table 4.7.2-3, Generation of Sewage by Related Projects**). Therefore, the Project and related projects would not require the expansion or construction of sewage treatment facilities, the construction of which could cause significant environmental effects. The cumulative impact of the Project and related projects is less than significant.

Development of the related projects may also require relocation/upgrades of existing sewer lines. These relocations/upgrades could result in short-term service interruptions for service area users, representing a significant impact as well. Project impacts were determined to be less than significant. However, the City would require capacity upgrades to the sewer conveyance system prior to occupancy to avoid overloading the system on a project-by-project basis. Similarly, the City would also require that temporary sewer lines be installed and operational prior to construction to avoid service interruptions on a project-by-project basis. The inclusion of these requirements would reduce cumulative impacts to less than significant. Because the Project would require the provision of temporary replacement sewer lines, the Project's contribution would not be cumulatively considerable and, therefore, is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

As shown in **Table 4.7.2-3, Generation of Sewage by Related Projects**, development of related projects would add approximately 744,900 gpd to the Hyperion Treatment Plant or the City's sewage conveyance system. Combined with the increase of 8,924 gpd generated by the Project, the Project and related projects would generate an overall cumulative sewage demand of approximately 753,824 gpd.

As discussed previously, when the Los Angeles/Glendale Reclamation Plant reaches capacity, the Hyperion Treatment Plant would treat the remaining generated sewage. Therefore, a majority of the waste generated by the Project and related projects would be treated by the Hyperion Treatment Plant. With the Hyperion Treatment Plant currently operating 88 million gpd below capacity, the additional 753,824 gpd of sewage generated by cumulative development would not exceed the plant's capacity. With excess capacity available to Glendale upon payment of fees to the City of Los Angeles, adequate capacity exists to treat sewage generated by the Project and related projects. Therefore, the cumulative impact of the Project and related projects on available sewage treatment capacity is less than significant.

Table 4.7.2-3
Generation of Sewage by Related Projects

Use	Units	Average Loading Factor (gpd/1,000 sq. ft.)	Daily Generation (gpd)
Multifamily residential	4,135 du	160	587,840
Live/work	51 du	160	83,840
Commercial	355,329 sq. ft.	80	28,426.32
Restaurant	4,599 sq. ft.	80	367.92
Hotel	266 rm	130	34,580
Cinema/studio	9,690 sq. ft.	80	775.20
Church	9,500 sq. ft.	200	1,900
Office	17,802 sq. ft.	150	2,670.30
Medical Office	18,000 sq. ft.	250	4,500
Total			**744,899.74**

Note: Sewage generation rates were based on the City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates Table, which was effective June 6, 1996.
du = dwelling unit; sq. ft. = square feet; gpd = gallons per day; rm = room

Development of the related projects would place additional demand on the City's sewage conveyance system. Sewage conveyance infrastructure serving the individual related projects may not have adequate capacity to handle additional sewage loads, and such a lack of capacity may represent a significant impact. Additionally, in an effort to alleviate sewer impacts, the City will impose a sewer capacity increase fee on all future developments adding demand for sewer system capacity within the City. The fee will be charged when development of a parcel leads to an increase in the volume of wastewater discharged to the collection system. The City has elected to calculate these fees based on proportional increases in wastewater flow. The collected fees will be deposited into a specially created account to be used to fund capacity improvements of the City-wide sewer system. In the event the City receives proposals for new developments not considered in the current hydraulic analysis, intermediate and more frequent hydraulic analyses will be performed to evaluate capacity in the given drainage basin. The Public Works Director will request consideration from the City Council to budget the funds for the balance of the cost of increasing the sewer capacity for any of the drainage basins, as part of its annual CIP when it determines such action to be appropriate and justifiable. The City's Public Works Engineering Division will then be able to design and construct the necessary improvements.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: The following mitigation measure would reduce potential cumulative sewer impacts.

4.7.2-2 Each project shall contribute sewer capacity increase fees for improvements and upgrades to alleviate sewer impacts within the specific drainage basin where the particular project is located. Fees would be determined based on the City's sewer capacity increase fee methodology. These collected fees would be deposited into a specially created account to be used to fund capacity improvements of the specific drainage basin.

Level of Significance After Mitigation: Less than significant.

ENVIRONMENTAL SETTING

Existing Conditions

Regional Facilities

Over 250 private waste haulers and several City governments collect solid waste in Los Angeles County. The City of Glendale Integrated Waste Management Division is the primary hauler for single-family residences, and all but a small percentage of 1- to 4-unit residential buildings, in Glendale. It is estimated that the City is the collector for up to 80 percent of multifamily properties with 5 or more units and approximately 15 percent of nonresidential commercial properties in Glendale. Accordingly, private companies haul waste for approximately 20 percent of the multifamily residential properties and approximately 85 percent of the nonresidential commercial properties in Glendale.[42] The majority of the waste is disposed of at various landfills within the County. However, some of the waste is delivered to waste-to-energy transformation facilities or to intermodal facilities for transport to facilities outside of Los Angeles County.

Within Los Angeles County, there are four classifications of solid waste disposal facilities: (1) Class III landfills, (2) Unclassified landfills, (3) transformation facilities, and (4) materials recovery facilities (MRF). Class III landfills accept all types of nonhazardous solid waste, while Unclassified landfills accept only inert waste, including soil, concrete, asphalt, and other construction and demolition debris, as defined by *California Code of Regulations*, Title 23, Section 2554. Transformation facilities incinerate municipal solid waste in order to generate energy. MRFs recover recyclable materials from other waste to provide for the efficient transfer of the residual waste to permitted landfills for proper disposal.

The *County of Los Angeles Countywide Integrated Waste Management Plan: 2012 Annual Report*, prepared by the County of Los Angeles Department of Public Works, indicates that residents and businesses in Los Angeles County (both incorporated cities and unincorporated areas) disposed of 8.8 million tons of solid waste in landfills in and out of Los Angeles County and at inert waste facilities in 2012. Of this amount, approximately 6.3 million tons were disposed of at Class III landfills within Los Angeles County; approximately 1.8 million tons were exported to out-of-county Class III landfills;

42 Mike Wiederkehr, Assistant Integrated Waste Management Administrator, City of Glendale, Public Works Department, personal communication with Meridian Consultants, August 20, 2014. Note: The City provided anecdotal data in order to provide this estimate.

approximately 89,142 tons were disposed of in Unclassified (Inert) landfills; and approximately 569,539 tons were disposed of at waste-to-energy facilities.[43]

The estimated remaining capacity of permitted Class III landfills at the end of 2012 in Los Angeles County was approximately 129.2 million tons.[44] Based on the 2012 average disposal rate of 28,237 tons per day (6 days a week), including waste being imported to the County, local permitted Class III landfills will be at capacity in the year 2027. However, ultimate landfill capacity would be determined by several factors, including: (1) expiration of various permits (e.g., Land Use Permits, Waste Discharge Requirements Permits, Solid Waste Facilities Permits, and air quality permits), (2) restrictions to accepting waste generated only within a landfill's particular jurisdiction and/or wasteshed boundary, and (3) operational constraints.

The capacities of Inert landfills are affected by these same factors, but they are not affected to the same extent. The total estimated remaining capacity of Inert landfills at the end of 2012 in Los Angeles County was approximately 64.1 million tons.[45] Based on a 2012 average disposal rate of 286 tons of inert waste per day (6 days per week), there is remaining capacity for approximately 718 years.

Currently, most solid waste collected within Los Angeles County by private haulers is disposed of within the County. However, it is likely that independent solid waste haulers do and will continue to take solid wastes to facilities outside the County. Greater inter-County transfer of solid waste may occur in the near future if landfills outside of Los Angeles County provide greater economic advantages to haulers, or if landfills within the County reach capacity.

According to the 2012 Annual Report on the Countywide Summary Plan and Countywide Siting Element, there will be a shortage of permitted solid waste disposal capacity in the County. This is due to a lack of suitable sites for developing new landfills, limited potential expansion of existing landfills, and strong public opposition to the siting of proposed solid waste management facilities. To address this issue, several landfills in the County have been recently expanded or proposed to be expanded, including the Chiquita Canyon, Lancaster, Scholl Canyon, and Whittier (Savage Canyon) Landfills. In addition, the County transports solid waste out of county to the El Sobrante Landfill in Riverside County, three landfills in Orange County, the Simi Valley Landfill & Recycling Center in Ventura County, and the

43 County of Los Angeles Department of Public Works (LADPW), *Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report* (August 2013), 16.

44 LADPW, *Integrated Waste Management Plan* (August 2013), 24.

45 LADPW, *Integrated Waste Management Plan* (August 2013), 25.

Mesquite Regional Landfill in Imperial County.[46] The combined out-of-county landfills would accept up to 21,350 tons per day from the County.

Local Facilities

In 1989, residential and nonresidential uses in Glendale disposed of approximately 345,000 tons of solid waste.[47] Glendale has reduced the amount of disposed solid waste by approximately 53 percent in 2006.[48] Similar to the disposal patterns Countywide, the decline can be attributed primarily to waste diversion programs, including waste reduction, recycling, and composting.

The City's Department of Public Works, Integrated Waste Management Division disposed of approximately 86,000 tons of solid waste in the 2012-2013 fiscal year.[49] The breakdown of the solid waste is as follows: 34,821 tons from residential units which consist of single family units and multifamily units with 4 units or less, and 32,660 tons from commercial uses and multifamily units with 5 or more units; and 18,474 tons of green waste from residential uses.

In 2013, the report to California Department of Resources Recycling and Recovery (CalRecycle, which was formerly the California Integrated Waste Management Board) indicated that the City disposed of approximately 131,771 tons of solid waste.[50] In 2013, the population for the City of Glendale was 193,652. The per capita disposal rate was approximately 3.7 pounds per day (PPD). The per-resident disposal target rate is 5.5 PPD. [51]

Table 4.7.3-1, Disposal Capacities of Primary Landfills Serving the City of Glendale, provides the annual disposal quantity, annual capacity, remaining capacity, and permit status for the five landfills that received the majority of the City's waste. As shown in **Table 4.7.3-1,** the combined remaining capacity of the five landfills was approximately 139.4 million tons.

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46 LADPW, *Integrated Waste Management Plan* (August 2013), 42.

47 City of Glendale, *General Plan,* "Source Reduction and Recycling Element" (June 1991), ES-2.

48 California Department of Resources Recycling and Recovery (CalRecycle), "Jurisdictional Diversion/Disposal Rate Summary (1995–2006), Jurisdiction Glendale," http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversion.aspx.

49 Mike Wiederkehr, electronic communication, October 2013.

50 CalRecycle, State & Local Government, "On-Line Disposal Rate Calculator," Glendale 2013, accessed 2014, http://www.calrecycle.ca.gov/lgcentral/Reports/OnLineDisposalRateCalc.aspx;

51 CalRecycle, "Jurisdiction Diversion/Disposal Rate Detail (2007–Current)," accessed 2014, http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx.

Table 4.7.3-1
Disposal Capacities of Primary Landfills Serving the City of Glendale

Landfill Site	Location	Annual Permitted Capacity (million tons)	Annual Disposal (million tons)	Remaining Permitted Capacity (million tons)	Remaining Capacity (Years)
Chiquita Canyon	Valencia	1.9	0.9	4	2
Nu-Way Arrow	Irwindale	0.8	0.4	–	–
Puente Hills	Near City of Industry	4.1	2.1	6.1	1
Scholl Canyon	Glendale	1.0	0.2	3.4	16
Sunshine Canyon	Valencia	3.8	2.2	74.4	20
Subtotal				*87.9*	*39*
Proposed Chiquita Canyon Expansion	Valencia	3.7	–	35.1	26
Proposed Scholl Expansion	Glendale	1.1	–	6.0	21
Total Remaining Capacity (2011)				**129**	**86**

Source: County of Los Angeles Department of Public Works, Los Angeles County Countywide Integrated Waste Management Plan, 2012 Annual Report (August 2013), Appendix E-2, Table 1.
Note: CalRecycle has not reported the Nu-Way Arrow facility remaining permitted capacity.

Scholl Canyon Landfill, which is located at 3100 Scholl Canyon Road, is the main facility that receives the City's solid waste; however, other landfills in Los Angeles County may accept solid waste from Glendale's private haulers.[52] This site consists of 530 acres, of which Los Angeles County owns 25 acres, Southern California Edison owns 30 acres, and the City of Glendale owns the remaining 475 acres. According to *Glendale Municipal Code,* Chapter 8.56, only solid waste generated by residential and nonresidential uses in the Scholl Canyon Watershed can be disposed at the Scholl Canyon Facility.[53]

Approximately one-half, or about 128,000 tons, of the solid waste disposed of at the Scholl Canyon landfill came from outside sources. This landfill has a remaining permitted capacity of 3.4 million tons, or an estimated remaining life of approximately 16 years. The City, if needed, would have access to all the remaining capacity of the landfill by no longer accepting solid waste from other jurisdictions, thereby extending the life of the landfill.

52 Maurice Oillataguerre, personal communication, January 22, 2013.
53 Glendale Municipal Code, Chapter 8.56, Solid Waste Disposal (2005).

Another local facility that the City of Glendale owns is the Brand Park Recycling Facility, which is located at 1602 West Mountain Street in Glendale. This facility is a Recycling Facility, is limited in use to City work crews, and is not open to the public. The facility collects concrete and asphalt from street renovation projects, which are stockpiled for recycling.[54]

Construction debris generated by projects in the area is recycled at certified mixed-debris recycling facilities. The City's Integrated Waste Management Division identifies six certified mixed-debris recycling facilities, including California Waste Services in Los Angeles, Community Recycling in Sun Valley, Direct Disposal in Los Angeles, Interior Removal Specialist in South Gate, Looney Bins/Downtown Diversion in Los Angeles, and Looney Bins/East Valley Diversion in Sun Valley. The permitted annual capacities at the six certified mixed-debris recycling facilities can accept a range of annual permitted capacity from 37,440 to 936,000 tons as shown in **Table 4.7.3-2, Annual Permitted Capacities of Certified Recycling Facilities**.

Table 4.7.3-2
Annual Permitted Capacities of Certified Recycling Facilities

Landfill Site	Location	Annual Permitted Capacity (tons)
California Waste Services	Los Angeles	300,000
Community Recycling	Sun Valley	530,400
Direct Disposal[1]	Sun Valley	37,440
Interior Removal Specialist	South Gate	936,000
Looney Bins – Downtown Diversion	Los Angeles	525,000
Looney Bins – East Valley Diversion	Los Angeles	273,750

Source: CalRecycle, SWIS Facility/Site Search (accessed 2014), http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx; County of Los Angeles Countywide Integrated Waste Management Plan, 2012 Annual Report (accessed 2014), http://dpw.lacounty.gov/epd/swims/docs/pdf/CIWMP/2012.pdf.

[1] Used a conversion factor of 1,200 pounds per cubic yard. 200 cubic yards per day × 1,200 pounds per cubic yard = 240,000 pounds per day / 2,000 pounds per ton = 120 tons per day.

Project Site Generation

The amount of solid waste generated by the existing uses on the Project site was estimated using solid waste generation factors provided by the CalRecycle.[55] It is estimated that the existing uses at the

54 Maurice Oillataguerre, personal communication, January 22, 2013.

55 CalRecycle, *Waste Characterization, Estimated Solid Waste Generation and Disposal Rates*, http://www.calrecycle.ca.gov/wastechar/wastegenrates/default.htm (January 2013); CalRecycle does not officially endorse any specific rate. However, they are provided for general information and planning purposes.

Project site currently dispose 19.14 tons of waste per year into landfills as indicated in **Table 4.7.3-3, Estimated Existing Solid Waste Generation**.

Table 4.7.3-3
Estimated Existing Solid Waste Generation

Use	Units	Generation Rate (lbs./sq. ft./day)	Waste Generated (lbs./day)	Waste Generated (tons/year)
Commercial/office space	20,450 sq. ft.	0.006	122.7	19.1
Total			**122.7**	**19.1**

Source: CalRecycle, Waste Characterization, Commercial Sector: Estimates Solid Waste Generation and Disposal Rates (2013).
Note: lbs. = pounds; sq. ft. = square feet.

Regulatory Setting

California Integrated Waste Management Act

Because many of the landfills in the state are approaching capacity and the siting of new landfills becomes increasingly difficult, the need for source reduction, recycling, and composting has become readily apparent. In response to this increasing solid waste problem, in September 1989, the State assembly passed Assembly Bill 939, known as the California Integrated Waste Management Act. This statute emphasizes conservation of natural resources through the reduction, recycling, and reuse of solid waste. Assembly Bill 939 required cities and counties in the State to divert 25 percent of their solid waste stream from landfills by 1995 and 50 percent by year 2000, or face potential fines of millions of dollars per year. On June 30, 2008, the State Assembly amended Senate Bill 939 to include additional waste diversion goals of 60 percent by the year 2015 and 75 percent by the year 2025.[56]

The California Integrated Waste Management Act also requires that all cities conduct a Solid Waste Generation Study and prepare a Source Reduction Recycling Element. Glendale prepared a Solid Waste Generation Study in 1990 that established 1989 as the baseline for use in measuring diversion required under Assembly Bill 939. The study measured current and projected quantities of waste that will be generated, disposed, and diverted from disposal in Glendale. In addition, the City also prepared a Source Reduction Recycling Element in 1991 to describe how it has attained the diversion goals established by Assembly Bill 939 through source reduction, recycling, and composting. The following describes each of the Source Reduction Recycling Element's components.

56 CalRecycle, formally known as the California Integrated Waste Management Board, Senate Bill 1252 Amendment (June 30, 2008).

Source Reduction

The City identified five programs to reduce waste at the source: (1) in-house local government programs, such as purchasing preferences and specifications for durable and reusable products, waste evaluation and employee education, increased use of electronic mail, and low-maintenance landscaping; (2) encouraging source reduction in the private sector through technical assistance, business evaluation, education, and promoting backyard and institutional composting; (3) using recycled materials that would require waste reduction planning through the business license process and banning products that cannot be recycled or reused; (4) rate structure modifications; and (5) economic incentives to encourage waste reduction.

Recycling

Recycling programs include: (1) the development of materials recovery facilities, (2) the continuation and expansion of commercial recycling activities, (3) the development of a municipal buy-back center and drop-off center, (4) the expansion of the Civic Center office paper recycling program, (5) increasing the frequency of the curbside recycling program, and (6) implementing a salvaging program at Scholl Canyon for white goods (e.g., paper), metals, and wood.

Composting

The City has developed its own yard waste composting facility, which will potentially involve neighboring cities. The City is also investigating the feasibility of composting mixed solid waste. The City currently has an active backyard composting effort underway. City collected yard trimmings are not composted but are ground and used as alternative daily cover at the Scholl Canyon Landfill.

SB 1016

With the implementation of Senate Bill 1016, CalRecycle no longer calculates diversion rate based on actual disposal and estimated annual generation using CalRecycle's adjustment methodology. As a result, Countywide diversion rates are no longer calculated. The last diversion rates approved by CalRecycle were for 2006. Considering each jurisdiction's approved diversion rate, a Countywide diversion rate for 2006 was estimated to be 58 percent.

Under SB 1016, a target per capita disposal rate, which is equivalent to a 50 percent diversion rate, is calculated using an approved jurisdiction specific average of per capita generation rates of years 2003 to 2006. To establish compliance with AB 939, each jurisdiction's per capita disposal rate is calculated for each reporting year and compared with their individual target rates.

Using projections of population, employment, and real taxable sales from the University of California, Los Angeles, it is estimated that in order to meet the per capita disposal requirements, jurisdictions in Los Angeles County would need to continue their diversion programs as well as other disposal reduction strategies.

California's 75-Percent "Recycling" Goal

On October 6, 2011, Governor Brown signed Assembly Bill 341 establishing a State policy goal that no less than 75 percent of solid waste generated be source reduced, recycled, or composted by 2020, and requiring CalRecycle to provide a report to the Legislature that recommends strategies to achieve the policy goal by January 1, 2014. The bill also mandates that local jurisdictions implement commercial recycling by July 1, 2012.

Local Regulations

Chapter 8.58 of *Glendale Municipal Code* requires that all construction and demolition debris be taken to a "certified mixed-debris recycling facility" or a recycler must divert all accepted waste from the landfill. A certified mixed-debris recycling facility is a processing facility that is certified as having obtained all applicable federal, State, and local permits and diverts a minimum of 50 percent of all incoming mixed construction and demolition debris.[57] In addition, project applicants must pay a diversion security deposit and prepare a waste reduction and recycling plan. The diversion security deposit is refundable upon request within one year of the certificate of occupancy and upon the determination by the director that the applicant has complied with the diversion requirements and submitted a waste reduction and recycling plan.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

In order to assist in determining whether a project would have a significant effect on the environment, the City determines that a project may be deemed to have a significant impact on solid waste, if the following could occur:

- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, State, and local statutes and regulations related to solid waste.

57 Glendale Municipal Code, sec. 8.58.010, amended October 23, 2008.

Methodology

Solid waste generation associated with Project operation was estimated using CalRecycle factors determined by land use type. The factors are provided in pounds of solid waste generated per residential unit. The estimated existing solid waste generation was subtracted from the estimated amount of solid waste generated for the Project to determine the net increase of solid waste that would be generated by the Project. The increase associated with operation of the Project was then compared with landfill capacity in order to evaluate potential impacts on solid waste disposal capacity.

Project Impacts

Threshold: **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.**

Construction

Construction of the Project would involve site preparation activities (e.g., demolition of existing buildings and surface parking), which would generate waste materials. Approximately 19,250 cubic yards of demolition material would be generated. The Project applicant would be required to take all the construction and demolition debris to a certified mixed-debris recycling facility, which recycles a minimum of 50 percent of all waste received, or a recycler must divert all accepted waste from the landfill. Construction debris generated on the Project site would be disposed of at one of the recommended facilities or at a recycling facility that diverts all construction and demolition waste, in accordance with Chapter 8.58 of the *Municipal Code*. As shown in **Table 4.7.3-2**, the permitted annual capacities at the six certified mixed-debris recycling facilities can accept a range of annual permitted capacity from 37,440 to 936,000 tons. The one-time disposal of 19,250 cubic yards of demolition debris generated by the Project would be served by the certified facilities; therefore, the impact of the Project on the certified facilities would be less than significant.

In addition, construction of the proposed structure would generate waste materials. A majority of the construction waste would be readily recyclable materials such as wood, concrete, metals, and soil. This material will be collected on site in accordance with the City's Construction and Demolition Debris Recycling Ordinance and sent to commercial facilities located in Los Angeles County. Therefore, the impact of waste generated during the construction of the proposed structure is less than significant.

Operation

Project implementation would result in an increase in residential development on site. **Table 4.7.3-4, Estimated Solid Waste Generation,** provides the projected amount of solid waste that would be generated by the Project. The Project would generate approximately 25 tons of solid waste per year.

With implementation of the Project, the citywide projected solid waste disposal would be 131,796 tons per year and the City's per capita disposal population rate would be approximately 3.7 PPD, which would be under the 5.5 PPD population target for the City.[58]

Table 4.7.3-4
Estimated Solid Waste Generation

Use	Units	Generation Rate (lbs./sq. ft./day)	Waste Generated (lbs./day)	Waste Generated (tons/year)
Multifamily residential	71 du	4	284	44.3
Credit *(Existing Development)*			(122.7)	(19.1)
TOTAL			**161.3**	**25.2**

Source: CalRecycle, Waste Characterization, Residential Developments: Estimates Solid Waste Generation and Disposal Rates (accessed 2014).
Note: du = dwelling unit; lbs. = pounds; sq. ft. = square feet.

Solid waste generated on the Project site would be deposited at the Scholl Canyon Landfill, which is owned by the City of Glendale, or at one of the landfills located within the County of Los Angeles. As indicated in **Table 4.7.3-1**, the annual disposal rate at the Scholl Canyon facility is 200,000 tons per year. Combined with the increase of 25 tons per year in solid waste generated by the Project, the annual disposal amount would increase to approximately 200,025 tons per year. With a total remaining capacity of 3.4 million tons, the Scholl Canyon facility would meet the needs of the City and the Project for approximately 16 years. Furthermore, once the permitted capacity is exhausted at the Scholl Canyon facility, approximately 6 million tons of potentially available capacity would remain at the site.[59] Because the Project would be required to implement a waste-diversion program aimed at reducing the amount of solid waste disposed in the landfill, the amount of solid waste generated would likely be less than the amount estimated. Examples of waste diversion efforts would include recycling programs for cardboard boxes, paper, aluminum cans, and bottles through the provision of recycling areas within garbage disposal areas.

The Scholl Canyon facility would have sufficient capacity to continue to accommodate the demand for Class III disposal facilities generated by the Project site. As such, the increase in solid waste generation associated with the operation of the Project would not exacerbate landfill capacity shortages in the

58 CalRecycle, State & Local Government, "On-Line Disposal Rate Calculator," Glendale 2013 (accessed 2014), http://www.calrecycle.ca.gov/lgcentral/Reports/OnLineDisposalRateCalc.aspx.
59 LADPW, *Integrated Waste Management Plan rt* (August 2013), 59.

region to the point of altering the projected timeline of any landfill to reach capacity. Therefore, the impact of the Project on permitted landfill capacity is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Threshold: **Comply with federal, State, and local statutes and regulations related to solid waste.**

As part of the Project, the Applicant would implement a waste diversion program in an effort to help the City meet its waste diversion goal of 50 percent as mandated by State law (SB 1016 and AB 939). The Project would enclose trash collection areas and would provide a recycling area to reduce the amount of solid waste sent to the landfill. It is anticipated that waste carts for household trash, recycling, and green waste will be provided. No federal statutes apply to the Project site. Therefore, the impact of the Project on compliance with federal, State, and local statues and regulations is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

Cumulative Impacts

Threshold: **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.**

As shown in **Table 4.7.3-5, Projected Cumulative Solid Waste Generation**, the development of related projects would dispose of a projected approximately 3,088 tons of solid waste into landfills every year. Combined with the additional annual tonnage of solid waste generated by the Project, the cumulative amount generated by new projects would be approximately 3,113 tons of solid waste per year.

Table 4.7.3-5
Projected Cumulative Solid Waste Generation

Land Use	Units	Generation Rate (lbs./sq. ft. (unit)/day	Waste Generated (tons/year)
Multifamily residential	4,135 du	4	2,580.2
Live/work	51 du	4	31.8
Commercial	355,329 sq. ft.	0.005	277.2
Restaurant	4,599 sq. ft.	0.005	3.6
Hotel	266 rm	2	83.0
Cinema/studio	9,690 sq. ft.	0.046	69.5
Church	9,500 sq. ft.	0.006	8.9
Office	17,802 sq. ft.	0.006	16.7
Medical Office	18,000 sq. ft.	0.006	16.9
Total			**3,087.7**

Source: CalRecycle, "Waste Characterization: Estimated Solid Waste Generation Rates," http://www.calrecycle.ca.gov/wastechar/wastegenrates/default.htm.
Note: du = dwelling unit; lbs. = pounds; rm = room, sq. ft. = square feet.

The current capacity of the Scholl Canyon Landfill is adequate to accommodate solid waste disposal needs of the Project, and development of all related projects, for at least 16 years, if not longer. The City also utilizes four additional landfills, all of which are still currently accepting materials. The combined remaining capacity of the four landfills is estimated to last 94 years.

The County of Los Angeles landfills are a part of the County Sanitation Districts of Los Angeles County (CSDLAC). The CSDLAC provides solid waste management for over half the population in Los Angeles County. CSDLAC's service area covers approximately 815 square miles and encompasses unincorporated County territory, as well as 78 cities, including Glendale. CSDLAC operates a comprehensive solid waste management system, which includes landfills, recycling centers, transfer/materials recovery facilities, and gas-to-energy facilities.

Although there is insufficient permitted disposal capacity within the existing system serving Los Angeles County to provide for its long-term disposal needs, there is additional capacity potentially available within Los Angeles County through the expansion of local landfills, through studying, promoting, and developing conversion technologies, through expanding transfer and processing infrastructure, and outside of Los Angeles County with a regional waste-by-rail system and remote landfills. As proposed by CSDLAC, this regional system would utilize disposal capacity at the planned Mesquite Regional Landfill

(MRL) in Imperial County. MRL was completed in late 2008 and is permitted to accept up to 10,000 tons of waste per day in the first 10 years, with the option of increasing to 20,000 tons of waste each day from Los Angeles County. The permitted capacity of 460 million tons and a total capacity of 708 million tons would be able to provide approximately 100 years of disposal capacity for Los Angeles County.[60] However, the landfill developer filed for bankruptcy on May 22, 2013, and the CSDLAC took action to cease negotiations for use of the MRL. On May 6, 2014, the Sanitation Districts of Los Angeles County presented an update on the MRL to the Imperial County Board of Supervisors. MRL was presented as an investment that would provide long-term benefits.[61] The MRL is currently on standby.

Furthermore, there is presently insufficient permitted disposal capacity within the existing system serving Los Angeles County. The Project, in combination with other development, could contribute to insufficient permitted disposal capacity by contributing additional solid waste to regional landfills. Development under the Project would also contribute construction debris to regional landfills, increasing the cumulative effect. Therefore, the Project's contribution to the cumulative impact would be considered cumulatively considerable, and would be a significant and unavoidable impact.

Level of Significance Before Mitigation: Significant.

Mitigation Measures: None feasible.

Level of Significance After Mitigation: Significant and unavoidable.

Threshold: **Comply with federal, State, and local statutes and regulations related to solid waste.**

The City will continue to implement programs for source reduction and recycling and will require that subsequent projects complete environmental reviews to minimize solid waste disposal at disposal facilities. Furthermore, the State has set a goal to recycle, source-reduce, or compost 75 percent of solid waste generated. In addition, related projects are also required to comply with applicable municipal codes. As a result, the cumulative impact of the Project and related projects regarding compliance with applicable state and local solid waste statutes and regulations is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Less than significant.

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60 LADPW, *Integrated Waste Management Plan* (August 2013), 54.

61 Sanitation Districts of Los Angeles County, *Mesquite Regional Landfill Update, May 6, 2014,* presentation to Imperial County Board of Supervisors by Paul Prestia, Division Engineer, Facilities Planning Department (2014).

5.0 ALTERNATIVES

This section of the environmental impact report (EIR) provides a comparative analysis of the merits of alternatives to the Project pursuant to Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines, as amended. The purpose of the alternatives analysis is to explain potentially feasible ways to avoid or minimize significant effects of the Project. According to the State CEQA Guidelines, the EIR need only examine in detail those alternatives that could feasibly meet most of the basic objectives of the Project. When addressing feasibility, the State CEQA Guidelines, Section 15126.6 states that:

> *among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, jurisdictional boundaries, and whether the applicant can reasonably acquire, control or otherwise have access to alternative sites.*

The State CEQA Guidelines also specify that the alternatives discussion should not be remote or speculative, and need not be presented in the same level of detail as the assessment of the Project.

Therefore, based on the State CEQA Guidelines, several factors need to be considered in determining the range of alternatives to be analyzed in an EIR and the level of analytical detail that should be provided for each alternative. These factors include: (1) the nature of the significant impacts of the project, (2) the ability of alternatives to avoid or lessen the significant impacts associated with the project, (3) the ability of the alternatives to meet the objectives of the project, and (4) the feasibility of the alternatives. These factors would be unique for each project.

SELECTION OF ALTERNATIVES FOR ANALYSIS

According to the State CEQA Guidelines, the discussion of alternatives should focus on alternatives to a project or its location that can feasibly avoid or substantially lessen the significant effects of the Project. The State CEQA Guidelines indicate that the range of alternatives included in this discussion should be sufficient to allow decision makers a reasoned choice. The alternative discussion should provide decision makers with an understanding of the merits and disadvantages of these alternatives.

Section 4.0, Environmental Impact Analysis, of this EIR concludes that Project implementation would result in significant and unavoidable environmental impacts. These include: Project-specific short-term noise and vibration impacts during construction, exterior noise levels from vehicle operations, long-term and cumulative impacts to recreation facilities, cumulative noise impacts during construction, cumulative impacts to fire, cumulative impacts to police, and cumulative impacts to solid waste. In response to these impacts, the City of Glendale identified and considered several alternatives to the

Project to determine if these alternatives could avoid or substantially lessen these significant impacts. These alternatives included the no project alternative, a 50 percent reduced density alternative, and a nonresidential alternative.

ALTERNATIVES CONSIDERED BUT NOT EVALUATED IN DETAIL

Section 15126.6(c) of the State CEQA Guidelines states that an EIR should briefly describe the rationale for selecting the alternatives to be discussed and the reasons for eliminating alternatives from detailed consideration in an EIR. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR is failure to meet most of the basic Project objectives, infeasibility, or inability to avoid or substantially reduce significant environmental impacts. Provided in the following paragraphs are the reasons for not providing a detailed evaluation of an off-site alternative.

Off-Site Alternative

An alternative site would involve the development of the Project at a different location. Given that neither the Project applicant nor the City of Glendale owns or controls any other property in the vicinity of the Project site, the ability of the applicant to find and purchase an alternative site on which to develop the Project is considered speculative. In addition, the development of an alternative site may not be able to meet the Project objectives. Lastly, the development of the same uses at a different location could result in similar project-specific (1) short-term noise and vibration impacts during construction, (2) the same long-term on-site noise impacts due to vehicle operations when located in close proximity to a freeway, a major arterial, or minor arterial with high traffic volumes,[1] (3) the same long-term and cumulative impacts to recreation facilities, (4) the same cumulative impacts to fire, (5) the same cumulative impacts to police, and (6) the same cumulative impacts to solid waste. Thus, the selection of an alternative site would not avoid many of the significant impacts. As indicated in CEQA Guidelines, Section 15126.6(c), "among factors that may be used to eliminate alternatives from detailed consideration in an EIR are (i) failure to meet most of the project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." As discussed previously, the relocation of the Project to an alternative site would not be feasible because obtaining an alternative site is considered speculative and because development on an alternative site would not avoid or substantially lessen any of the significant effects of the Project. Therefore, this alternative has been eliminated from detailed consideration within this EIR.

1 Note: There are areas within the City that will not exceed identified noise thresholds for construction or during operation.

ALTERNATIVES EVALUATED IN DETAIL

As discussed previously, the City of Glendale identified several alternatives for analysis in this EIR to determine if these alternatives could avoid or substantially lessen the significant impacts of the Project and meet the basic Project objectives. The following objectives for the Project are listed in **Section 3.0, Project Description.** The objectives of the Project are to:

- Redevelop an underutilized property with residential uses for the community of Glendale.
- Provide well-designed development that is compatible and complementary with surrounding land uses.
- Provide housing opportunities in an urban setting in close proximity to employment opportunities, public facilities, goods, and services.
- Implement the Redevelopment Plan objectives, but without redevelopment agency assistance.
- Increase property tax revenues to the City of Glendale.
- Generate construction employment opportunities in the City and in the region.
- Design a project with architectural features and materials appropriate for the location of the site, the size of the building, and surrounding uses.

Section 4.0, Environmental Impact Analysis, of this EIR concludes that Project implementation would result in some significant and unavoidable environmental impacts. These include the following Project-specific impacts: (1) short-term noise and vibration impacts during construction, (2) long-term and cumulative impacts to recreation facilities, (3) cumulative noise impacts during construction, (4) cumulative impacts to fire, (5) cumulative impacts to police, and (6) cumulative impacts to solid waste. Based on the environmental analysis, alternatives were developed that would provide decision makers with a reasonable range of alternatives that would eliminate or reduce the impacts of the Project. A list of the alternatives selected for evaluation in this analysis is provided.

- Alternative 1—No Project/No Development
- Alternative 2—50 Percent Reduced Density Alternative
- Alternative 3–Nonresidential Alternative

Alternative 1—No Project/No Development Alternative

The No Project/No Development Alternative is required to be evaluated by Section 15126(2)(4) of the State CEQA Guidelines. As required by the State CEQA Guidelines, the analysis must examine the impacts that might occur if the site is left in its present condition, as well as what may reasonably be 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 the No Project/No Development Alternative, the Project site would remain in its current and existing condition. The single-story concrete block building occupied by a wholesale auto parts business and accompanying surface parking lot would remain. The existing uses would continue and the existing environmental conditions would be maintained. Rainwater would continue to sheet flow across the two parcels and enter the gutter and storm drain without any filtration or infiltration. Hydrology and water quality impacts would be greater under this alternative. None of the impacts associated with construction and operational activities would occur if the No Project/No Development Alternative were selected. No short-term equipment noise and groundborne vibration impacts during construction, long-term recreation impacts, cumulative construction noise impacts, cumulative impacts to fire, cumulative impacts to police, and cumulative impacts to solid waste disposal would occur as a result of this alternative. This alternative is environmentally superior to the Project for these reasons.

Alternative 2—50 Percent Reduced Density

The 50 Percent Reduced Density Alternative considers development of the entire 0.72-acre site with a reduced residential density. This alternative would include the development of 35 multifamily residential units. This alternative would allow for the building to be 3 stories, approximately 44 feet above grade with a single level subterranean parking structure consisting of 79 parking spaces.[2] The layout of the land uses under this alternative would not change. Similar to the Project, the first floor would include the recreation room and the second floor would include the landscaped sundeck.

By reducing the amount of development, the construction duration of this alternative would also be reduced. In addition, a reduction in the amount of residential dwelling units would reduce the amount of direct population generated under this alternative, leading to a reduction in demand for public services, recreation, and utilities.

This Alternative was chosen because it would lessen, but not avoid, the significant and unavoidable impacts to recreation facilities, and the significant and unavoidable cumulative impacts to recreation, fire, police, and solid waste. This Alternative would still result in significant and unavoidable short-term noise and vibration impacts during construction, exterior noise levels from vehicle operations, and cumulative noise impacts during construction.

Aesthetics

The number of stories would be reduced from 5 stories under the Project to 3 stories under Alternative 2. The decrease in total number of stories would result in a decrease in the height of the structure to

2 70 spaces for 35 one- and two-bedroom units plus 9 guest parking spaces.

approximately 44 feet above grade; lower by approximately 29 feet when compared to the Project. Residential units would be spread throughout the first through third floors. The first floor would also include the recreation room, and the second floor would include the landscaped sundeck. Existing views towards the Verdugo Mountains and the San Rafael Hills are currently obstructed by existing development and vegetation. The view of this alternative from the east to the west would generally consist of vegetation from the open space areas proposed along the outside of the building similar to the Project and partial views of the ICIS building and multifamily buildings. The view of this alternative from the south to the north would also consist of vegetation from open space areas, in addition to partial views of surrounding multifamily residences and commercial buildings, similar to the Project. Therefore, this alternative would result in similar views from the east to west and south to north when compared to the Project. Alternative 2 would be subject to the same design review process and the same regulations concerning light and glare as the proposed Project. Similarly, all other visual impacts under this alternative would be similar when compared to the Project. The impact associated with Alternative 2 would be incrementally lesser than the Project. Since impacts to visual resources associated with the Project would be less than significant, neither this Alternative nor the Project would result in significant aesthetic impacts.

Air Quality

Construction activities (e.g., equipment use assumptions) under Alternative 2 would be similar to those of the Project on a daily basis. This alternative would result in two fewer above ground levels and one fewer subterranean parking level when compared to the Project. Therefore, construction activities would occur over a shorter period of time when compared to the Project. As with the Project, the increase in emissions resulting from Alternative 2 would not exceed daily thresholds recommended by the South Coast Air Quality Management District (SCAQMD).

Like the Project, Alternative 2 would not generate daily operational emissions of volatile organic compounds (VOCs), nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (Sox), suspended particulate matter (PM10) and fine particulate matter (PM2.5) that would exceed the thresholds of significance recommended by the SCAQMD. Given that neither the Project nor Alternative 2 would result in a significant impact with regard to operational air quality, impacts associated with Alternative 2 would be reduced by 50 percent when compared to the Project. Neither this Alternative nor the Project would result in significant air quality impacts. Therefore, Alternative 2 would result in comparatively less air quality impacts than those under the Project.

Alternative 2 would decrease daily and peak-hour trips by 50 percent when compared to the Project. The Project is estimated to result in a net total increase of 639.20 metric tons of carbon dioxide

equivalents (MTCO2e) per year. Alternative 2 would reduce the number of residential units by 50 percent, which would therefore result in a net total increase of approximately 319.6 MTCO2e per year. Under the GHG guidance, Alternative 2 would result in lower GHG emissions and would remain below the GHG guidance threshold. Given that neither the Project nor Alternative 2 would result in a significant impact with regard to GHG emissions, impacts would remain less than significant. Accordingly, Alternative 2 would result in comparatively less greenhouse gas emission impacts than those under the Project.

Land Use and Planning

Alternative 2 would establish 35 residential units on the Project site that are allowed by the current General Plan and Zoning designations. The intensity of the residential dwellings would be within the maximum amounts allowed of 100 dwelling units per acres by these designations, and this alternative would not conflict with the use or density standards in the General Plan or Zoning Code.

Like the Project, this alternative would not conflict with any of the goals, objectives, or policies of the Glendale General Plan. This alternative would result in the redevelopment of the Project site and the development of new residential uses in western Glendale, which are presently served by existing utilities and public services. As a result, neither this alternative nor the Project would conflict with the goals of the Redevelopment Plan and would not result in a significant impact with regard to land use. Given that neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would be similar to the Project.

Noise

Development activities associated with Alternative 2 during construction would include similar construction equipment as the Project. Under either the Project or Alternative 2, these construction equipment sources would cause significant noise and vibration impacts. These impacts could be reduced but not eliminated with either development scenario through the implementation of mitigation measures recommended for the Project. As a result, construction of the site under both scenarios would result in short-term significant and unavoidable noise and vibration impacts. It should be noted that the construction duration associated with Alternative 2 would be shorter than the Project due to one less subterranean parking level and a shorter overall building height. Under this Alternative, construction related noise impacts would be incrementally reduced when compared to the Project because Alternative 2 would result in fewer days of construction noise, but would not avoid or substantially lessen a significant noise impact.

Long-term operational noise generated by traffic under this alternative would decrease when compared to the Project. This is due to the decrease in the amount of traffic generated by this alternative. However, like the Project, this alternative would not result in an increase of 3 dB(A) (i.e., a doubling of traffic volumes) in the noise levels on roadway segments adjacent to the Project site. Although the development of Alternative 2 would create an incremental increase in noise along area roadways, this increase would not be noticeable. Since operational traffic noise impacts associated with the Project would be less than significant, neither this Alternative nor the Project would result in significant noise impacts. The impact associated with Alternative 2 would be incrementally lesser than the Project.

Public Services

Fire Protection

Alternative 2, like the Project, would increase demand on the City of Glendale Fire Department for fire protection services and emergency medical services. Alternative 2 would result in fewer calls for service due to the reduced number of dwelling units and the reduced number of residents. Under either the Project or Alterative 2, any increase in fire protection or emergency medical services within the City would not substantially impact the current firefighter-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 2 would result in a significant project-specific impact, impacts to fire protection associated with Alternative 2 would be similar to the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative fire impacts in the City of Glendale.

Police Protection

Alternative 2, like the Project, would increase demand on the City of Glendale Police Department for calls for service. Alternative 2, however, would result in fewer calls for service due to the reduced number of dwelling units and the reduced number of residents. Under either the Project or Alterative 2, any increase in calls within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 2 would result in a significant project-specific impact, impacts to police services associated with Alternative 2 would be similar to the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative police impacts in the City of Glendale.

Schools

Alternative 2, like the Project, would generate new students in the Glendale Unified School District. The development of the Project would directly result in the new generation of approximately 8 students in

grades K through 6; 3 students in grades 7 and 8, and 3 high school students for a total of 14 new students. Since this alternative would provide 35 dwelling units, the total number of students would be 7, which is a reduction of 7 students when compared to the Project. Government Code Section 65995 requires the payment of school fees to mitigate the impact of the project on local schools and impacts under this Alternative would be reduced to less than significant. Therefore, impacts associated with Alternative 2 would be similar to the Project. Neither this Alternative nor the Project would result in significant impacts on local schools.

Recreation

Alternative 2, like the Project, would result in an increase in use of existing neighborhood and community parks. The City currently has a parkland-to-resident ratio of approximately 1.47 acres of parkland for every 1,000 residents, while the City's park planning standard is 6 acres of neighborhood and community parkland per 1,000 residents. Existing park facilities are currently heavily used due to the deficiency in parkland in the City. Alternative 2 would result in the direct generation of 91 people, while the Project would result in direct generation of 185 people. These people would utilize parks within the City of Glendale. As required by the adopted Development Impact Fee schedule, Alternative 2, like the Project, would be considered a pipeline project and would be required to pay the phase-in fee of $7,000 per residential unit. The development impact fee payments are required to minimize a project's impact on park and recreation land and facilities. Under CEQA, the development impact fee payments constitute mitigation of project-related impacts on park and recreation land and facilities within Glendale. However, as the reduced Phase-in fee amount will be paid, this fee payment is not considered full mitigation because the Project's fee payment does not equal the full fair-share per unit fee for multifamily residential projects, which amounts to $18,751 per multifamily unit. Consequently, Alternative 2, like the proposed Project, would also result in significant and unavoidable project-specific and cumulative park and recreation impacts. However, Alternative 2 would decrease the direct population by approximately 94 residents, thus decreasing residents utilizing City parks and substantially reducing, but not avoiding, the significant recreation impacts identified for the Project.

Public Utilities

Water

As with the Project, Alternative 2 would result in an increase in water demand in the City. Alternative 2 would result in a demand for water of 6.25 acre-feet per year (afy), an approximately 50 percent reduction when compared to the Project demand of 12.49 afy. The provision of water as a result of the Project implementation would be within the projections of the Glendale Water and Power (GWP). Alternative 2, which would demand less water than the Project, would also be within the established

GWP projections. Water demand impacts under both Alternative 2 and the Project would be less than significant. Given that neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 2 would be similar to the Project.

Sewer

Alternative 2, like the Project, would result in an increase in sewage generation in the City. Alternative 2 would result generate 4,462 gallons of sewage per day, an approximately 50 percent reduction when compared to the Project demand of 8,924 gallons of sewage per day. There is adequate treatment capacity at the Hyperion Treatment Plant to accommodate either Alternative 2 or the Project. However, the City imposes a sewer capacity increase fee on new developments that lead to an increase in the volume of wastewater discharged to the collection system. The Alternative's sewage increase to the lines in the City's sewer capacity would be mitigated through payment of the sewer capacity increase fee, as required by the Project, and Alternative 2 impacts would be reduced to a less than significant level. Given that neither the Project nor Alternative 2 would result in a significant impact, impacts associated with Alternative 3 would be similar to the Project.

Solid Waste

Alternative 2, like the Project, would result in an increase in the demand for solid waste services in the City. Alternative 2 would generate 12.58 tons of solid waste per year, a 50 percent reduction when compared to the Project which would generate 25.16 tons of solid waste per year. Alternative 2 would result in a substantially lesser amount of solid waste when compared to the Project. There is adequate landfill capacity at the Scholl Canyon Landfill to accommodate either Alternative 2 or the Project. Therefore, impacts under both Alternative 2 and the Project would be less than significant. However, as indicated previously, Alternative 2 would result in substantially lesser impacts than the Project. Neither this Alternative nor the Project would result in significant project level impacts on landfill capacities. Both this Alternative and the Project would contribute to cumulative significant and unavoidable solid waste impacts due to County landfill capacity.

Alternative 3 – Nonresidential Alternative

The Nonresidential Alternative includes approximately 80,000 square feet of non-residential space. The nonresidential use would total approximately 40,000 square feet of medical office space and approximately 40,000 square feet of general office space. Each of the five floors would average approximately 16,000 square feet of both medical and general office space. This Alternative would provide approximately 4,954 square feet of landscaped area.

The subterranean parking structure would accommodate 308 parking spaces across four levels.[3] Of the total amount of parking provided, 10 spaces would be designated as handicap-accessible spaces. Vehicle access to the parking structure would be from W. Elk Avenue. Similar to the Project, this driveway would be controlled by a stop sign.

Similar to the Project, the height of the Alternative building would be 73 feet above ground and would be designed as a contemporary structure utilizing various different building materials in conformance with the design guidelines for the San Fernando Mixed Use zone. The size and massing of the Alternative building would be similar to the design of the Project building.

By eliminating the residential component from the Project, the commercial uses would not directly result in the generation of new residents within the City of Glendale. However, Alternative 3 would generate 154 AM peak-hour trips, 198 PM peak-hour trips, and a total of 1,885 daily trips. When compared to existing conditions, implementation of the Nonresidential Alternative would result in an increase of 152 AM peak-hour trips, an increase of 193 PM peak-hour trips, and an increase of 1,868 daily trips.[4] When compared to the Project, Alternative 3 would result in an increase of 118 AM Peak-Hour trips, an increase of 154 PM peak-hour trips, and an increase of 1,413 daily trips. The increase in traffic generated by the Nonresidential Alternative would be greater than the traffic generated by the Project and could result in potentially significant traffic impacts to local intersections.

This Alternative was chosen because it would avoid the significant exterior noise level impact from vehicle operations and substantially lessen, but not avoid, the significant and unavoidable impacts to recreation facilities, and would substantially lessen, but not avoid, the significant and unavoidable cumulative impacts to recreation, fire, police, and solid waste. This Alternative would still result in significant and unavoidable short-term noise and vibration impacts during construction and cumulative noise impacts during construction.

Aesthetics

Under Alternative 3, the height of the structure would be 73 feet above grade composed of 5 stories, similar to the Project. Similar to the Project, the maximum height of the structures associated with the Alternative building would within the maximum height of 75 feet permitted in the SFMU zone. In addition, the height of the proposed structures would not significantly obstruct scenic views across the Project site, as existing views of the Verdugo Mountains and San Rafael Hills are already obstructed. Due

3 200 spaces (5 spaces per 1,000 square feet) would be required for the medical office use and 108 spaces (2.7 spaces per 1,000 square feet) would be required for the general office use.

4 The existing wholesale auto parts' building generates 2 AM peak-hour trips,2 PM peak-hour trips, and a total of 17 daily trips.

to the similar height and building mass of the structure, this Alternative would result in similar shade/shadow impacts as the Project.

Similar to the Project, this Alternative would be designed as a contemporary structure, with design elements, colors, and materials suggestive of craftsman style architecture, utilizing various different building materials in conformance with the design guidelines for the SFMU zone. Primary building materials proposed for the Alternative building would include stucco, concrete and metal, similar to the Project. The Alternative would improve the aesthetic character of the site, given the architectural design of the Alternative and the use of design elements, such as the comprehensive landscape plan to be implemented along view, and the structural setback from neighboring properties.

Alternative 3 would be subject to the same design review process and the same regulations concerning light and glare as the proposed Project. Similarly, all other visual impacts under this alternative would be similar when compared to the Project. Impacts to visual resources associated with the Project would be less than significant, as would be the impact associated of Alternative 3. Neither this Alternative nor the Project would result in significant aesthetic impacts.

Air Quality

Construction activities for Alternative 3 would be similar to those of the Project on a daily basis. Although the size and massing of the Alternative building would be similar to that of the Project, there would be an increase in excavation activities for the two additional subterranean parking levels. Therefore, construction activities would occur over a larger scale and over a longer period of time when compared to the Project. Construction emissions for Alternative 3 are shown in comparison with construction emissions for the Project in **Table 5.0-1, Alternative 3 Construction Emissions (pounds/day).**

Table 5.0-1
Alternative 3 Construction Emissions (pounds/day)

Source	VOC	NOx	CO	SOx	PM10	PM2.5
Project Maximum Emissions*	16.16	15.79	16.29	0.03	3.40	1.32
Alternative 3 Maximum Emissions*	53.48	25.38	23.56	0.06	3.77	1.58
Difference	37.32	9.59	7.27	0.03	0.37	0.26
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Source: CalEEMod emissions calculations are provided in **Appendix 5.0, Alternative Air Quality and GHG Calculations.***
** Maximum emissions represent the single day with the highest emissions throughout the construction period from 2015-2017.*

As with the Project, the increase in emissions resulting from Alternative 3 would not exceed daily thresholds recommended by the SCAQMD. This Alternative would result in similar construction air quality impacts identified for the Project. Neither this Alternative nor the Project would result in significant construction air quality impacts.

The estimated emissions are based upon development of all the proposed land uses of Alternative 3 and the increase in the number of daily trips, and are presented in **Table 5.0-2, Alternative 3 Estimated Operational Emissions (pounds/day),** and are compared to the SCAQMD established operational significance thresholds.

As shown in **Table 5.0-2**, the emissions associated with Alternative 3 would not exceed the SCAQMD's recommended operational emission thresholds. However, the Alternative would increase all emissions during operation of the Alternative as a result of the increased number of vehicle trips per day. This Alternative would result in incremental increases of VOC emissions by 6.96 pounds/day, NOx emissions by 11.20 pounds/day, CO emissions by 38.39 pounds/day, SOx emissions by 0.10 pounds/day, PM10 emissions by 6.49 pounds/day, and PM2.5 emissions by 1.90 pounds/day when compared to the Project.[5] The operational impacts associated with the Alternative 3 would remain under the SCAQMD significance thresholds and would be less than significant. Although this Alternative would result in slightly higher emissions when compared to the Project, neither Alternative 3 nor the Project would result in significant operational air quality impacts. Therefore, impacts to air quality for Alternative 3 would be greater than those for the Project.

Table 5.0-2
Alternative 3 Estimated Operational Emissions (pounds/day)

Source	VOC	NOx	CO	SOx	PM10	PM2.5
Alternative 3 Operational Emissions	10.35	15.42	62.15	0.14	9.42	2.67
Existing Operational Emissions	0.96	0.48	1.76	0.01	0.32	0.09
Net Total Emissions	**9.39**	**14.94**	**60.39**	**0.13**	**9.10**	**2.58**
SCAQMD threshold	55	55	550	150	150	55
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

*Note: Refer to Air Quality Modeling in **Appendix 5.0.***

5 Estimated Project operational emissions are as follows: 3.89 pounds/day VOC, 4.22 pounds/day NOx, 22.0 pounds/day CO, 0.04 pounds/day SOx, 2.61 pounds/day PM10, and 0.77 pounds/day PM2.5.

The Alternative 3-specific localized significance thresholds for SRA 7 (East San Fernando Valley) are shown in **Table 5.0-3, Alternative 3 LST Worst-Case Emissions (pounds/day),** and are compared with the maximum daily on-site construction and operational emissions during Alternative 3.

As previously mentioned, there would be an increase in excavation activities for the two additional subterranean parking levels. Construction activities would occur over a larger scale (an additional 56,000 square foot of parking square footage) and over a longer period of time (approximately four months longer) when compared to the Project. Construction equipment would be similar to that proposed to be utilized by the Project. When the Alternative operation emissions are compared to the Project, the Alternative would result in incrementally higher NOx emissions by 6.52 pounds/day, CO emissions by 0.91 pounds/day, PM10 emissions by 2.13 pounds/day, and PM2.5 emissions by 0.25 pounds/day.[6] Neither this Alternative nor the Project would result in significant localized air quality emission impacts. Therefore, impacts to air quality for Alternative 3 would be greater than those for the Project.

Table 5.0-3
Alternative 3 LST Worst-Case Emissions (pounds/day)

Source	NOx	CO	PM10	PM2.5
Construction				
Total mitigated maximum emissions	17.13	12.57	2.95	0.90
LST threshold	58	359	3	2
Threshold exceeded?	**No**	**No**	**No**	**No**
Operational				
Area/energy emissions	0.20	0.22	0.02	0.02
LST threshold	58	359	1	1
Threshold exceeded?	**No**	**No**	**No**	**No**

*Source: Refer to Air Quality Modeling in **Appendix 5.0.***

The annual net GHG emissions associated with the construction/operation of Alternative 3 are provided below in **Table 5.0-4, Alternative 3 Estimated Greenhouse Gas Emissions.** The sum of the direct and indirect emissions associated with Alternative 3 is compared with the SCAQMD's screening threshold of significance for all land use projects, which is 3,000 MTCO2e per year.

6 The Project would generate 10.61 pounds/day NOx, 11.66 pounds/day CO, 0.82 pounds/day PM10, and 0.65 pounds/day PM2.5

Table 5.0-4
Alternative 3 Estimated Greenhouse Gas Emissions

GHG Emissions Source	Emissions (MTCO2e/year)
Construction (amortized)	25.25
Operational (mobile) sources*	1,738.48
Area sources	0.01
Energy	636.31
Waste	25.48
Water	57.24
Existing use	*- 156.81*
Annual net total	**2,325.96**

*Source: Emissions calculations are provided in **Appendix 5.0.***
** N20 emissions account for 0.10 MTCO2e per year*

As shown in **Table 5.0-4**, Alternative 3 would increase GHG emissions by 1,686.76 MTCO2e/year higher than the Project (639.20 MTCO2e/year). Although this Alternative would result in 1,686.76 MTCO2e/year higher GHG emissions when compared to the Project, neither Alternative 3 nor the Project would result in significant greenhouse gas emission impacts. Therefore, impacts greenhouse gas emissions for Alternative 3 would be greater than those for the Project.

Land Use and Planning

Pursuant to Section 30.14.010(B) Table 30.14-A of the City's Zoning Ordinance, general office and medical office uses are permitted within the SFMU Zone. Alternative 3 would establish medical office and general office uses on the Project site that are allowed by the current General Plan and Zoning designations. The intensity of the office uses would be within the maximum amount allowed to these designations and this alternative would not conflict with the use or density standards in the General Plan or Zoning Code.

Like the Project, this alternative would not conflict with any of the goals, objectives, or policies of the Glendale General Plan. This alternative would result in the redevelopment of the Project site and the development of new commercial uses in the San Fernando Road Redevelopment Corridor area of Glendale, which are presently served by existing utilities and public services. As a result, neither this alternative nor the Project would conflict with the goals of the Redevelopment Plan and would not result in a significant impact with regard to land use. Given that neither the Project nor Alternative 3

would result in a significant impact, impacts associated with Alternative 3 would be similar to the Project.

Noise

Development activities associated with Alternative 3 during construction would include similar construction equipment as the Project. Under either the Project or Alternative 3, these construction equipment sources would cause significant noise and vibration impacts. These impacts could be reduced but not eliminated with either development scenario through the implementation of mitigation measures recommended for the Project. Although the size and massing of the Alternative building would be similar to that of the Project, there would be an increase in excavation activities for the two additional subterranean parking levels. Therefore, construction activities would occur over a larger scale and over a longer period of time when compared to the Project. As a result, construction of the site under both scenarios would result in short-term significant and unavoidable noise and vibration impacts.

A doubling of sound energy results in a 3 A-weighted decibel (dB[A]) increase in sound, which means that a doubling of sound wave energy (e.g., doubling the volume of traffic on a roadway) would result in a barely perceptible change in sound level. As previously described, this Alternative would increase average daily trips (ADTs) by 1,413 trips when compared to the Project.

This alternative would result in a less than 3 dB(A) increase in the noise levels on affected roadway segments when compared to existing conditions. Existing average daily trips along Colorado Street, west of S. Pacific Avenue, total approximately 28,000 trips; along S. Pacific Avenue, south of Colorado Street, existing average daily trips total approximately 16,000 trips. Alternative 3 is forecast to result in an increase of 1,868 daily trips, an approximately 7 percent increase along Colorado Street and 12 percent increase of existing volumes along S. Pacific Avenue. Noise generated by traffic along W. Colorado Street and S. Pacific Avenue would generate noise levels along the exterior of the site that are at the *City Municipal Code* exterior noise level of 65 dB(A). With either the proposed Project or Alternative 3, these exterior noise levels would result in a significant impact. These impacts could be reduced, but not eliminated, with either development scenario through the implementation of mitigation recommended for the Project. This Alternative would incrementally increase noise impacts generated by traffic along W. Colorado Street when compared to the Project. However, since the development of Alternative 3 would consist of nonresidential uses and no balconies or patios would be provided; no exterior noise thresholds would apply to this alternative. Therefore, Alternative 3 would avoid the significant exterior noise impact identified for the Project.

Implementation of Alternative 3 would add new stationary noise sources to the site, as would the proposed Project. These would include rooftop-mounted equipment, a parking garage, street sweepers, and on-site medical office uses. With the implementation of mitigation measures proposed for the Project, long-term operational impacts under Alternative 3 would be similar to the Project.

Public Services

Fire Protection

Alternative 3, like the Project, would increase demand on the City of Glendale Fire Department for fire protection services and emergency medical services. Alternative 3, however, would result in fewer calls for service as commercial uses generate fewer calls for service than residential uses. Alternative 3, like the proposed Project, would contribute tax revenue, which would help fund the Fire Department. Given that neither the Project nor Alternative 3 would result in a significant project-specific impact, impacts to fire associated with Alternative 3 would be similar to the Project. However, like the Project, this alternative would contribute to significant and unavoidable cumulative impacts on fire protection and emergency medical services in the City of Glendale.

Police Protection

Alternative 3, like the Project, would increase demand on the City of Glendale Police Department for calls for service. Alternative 3, however, would result in fewer calls for service as medical office and general office uses generate fewer calls for service than residential uses. Under either the Project or Alterative 3, any decrease and/or increase in calls within the City would not substantially impact the current officer-to-population ratio and would not result in the need for any new or the physical alteration to any existing governmental facility. Given that neither the Project nor Alternative 3 would result in a significant project impacts, impacts to police associated with Alternative 3 would be similar to the Project. However, like the Project, this alternative would contribute to the significant and unavoidable cumulative impacts on police protection services in the City of Glendale.

Schools

Alternative 3 includes medical and general office space and would not result in the direct generation new students in the Glendale Unified School District. However, the additional employment opportunities generated by this Alternative may result in some additional households relocating to the City of Glendale. Pursuant to Government Code Section 65995, the project applicant is required to pay school impact fees to the Glendale Unified School District based on the current fee schedule for commercial development prior to the issuance of building permits. Payment of the school impact fees

would mitigate any indirect impacts to a less than significant impact. School impacts would be similar, if not reduced, under this Alternative when compared to the Project.

Recreation

Alternative 3 would not directly result in an increase in use of existing neighborhood and community parks. However, it would generate approximately 240 new employment opportunities that would result in some households relocating to the City.[7] It is estimated that approximately one-quarter of these employees could relocate to Glendale. Applying a 24 percent ratio, the employment positions would result in 58 of these new employees residing within the City of Glendale. The City currently has a parkland-to-resident ratio of approximately 1.47 acres of parkland for every 1,000 residents, while the City's park planning standard is 6 acres of neighborhood and community parkland per 1,000 residents.

Alternative 3 would indirectly result in the generation of residents within the City who would utilize parks within the City of Glendale. Approximately 127 fewer residents, or 69 percent fewer residents, would utilize City park and recreation facilities under this Alternative when compared to the Project. As required by the adopted Development Impact Fee schedule, Alternative 3, like the Project, would be considered a pipeline project and would be required to pay the phase-in fee in effect at the time the Stage I application was deemed complete. The development impact fee payments are required to minimize a project's impact on park and recreation land and facilities. Under CEQA, the development impact fee payments constitute mitigation of project-related impacts on park and recreation land and facilities within Glendale. However, as the reduced Phase-in fee amount will be paid, this fee payment is not considered full mitigation because the project's fee payment does not equal the full fair-share per unit fee for multifamily residential projects, which amounts to $18,751 per multifamily unit. Consequently, Alternative 3, like the proposed Project, would also result in significant and unavoidable project-specific and cumulative park and recreation impacts. However, Alternative 3 would result in approximately 127 fewer residents then the Project, thus decreasing residents utilizing City parks and substantially reducing, but not avoiding, the significant recreation impacts identified for the Project.

Public Utilities

Water

As with the Project, Alternative 3 would result in an increase in water demand in the City of Glendale. Alternative 3 would result in a demand for water of 20.10 afy, approximately 61 percent increase from

7 80,000 square feet / 1,000 square feet x 3.0 employees = 240 employees

the 12.49 afy needed for the Project because of the increase in general office and medical office space.[8] The amount of water needed for the Project would be within the projections of the GWP. Alternative 3, which would demand more water than the Project, would also be within the established GWP projections. Given that water demand impacts under both Alternative 3 and the Project would be less than significant, impacts associated with Alternative 3 would be similar to the Project.

Sewer

Alternative 3, like the Project, would result in an increase in the amount of wastewater generation in the City. Alternative 3 would generate 14,364 gallons per day (gpd) of sewage, an approximately 61 percent increase from the 8,924 gpd of wastewater that would be generated by the Project.[9] There is adequate treatment capacity at the Hyperion Treatment Plant to accommodate either Alternative 3 or the Project. However, the City imposes a sewer capacity increase fee on new developments that lead to an increase in the volume of wastewater discharged to the collection system in the City. Under CEQA, the payment of the sewer fee constitutes mitigation of project-related impacts on sewer facilities within Glendale. Alternative 3 impacts would be reduced to a less than significant level by payment of this fee, which provides the City with the funds needed to improve the sewer system. Given that neither the Project nor Alternative 3 would result in a significant impact, impacts associated with Alternative 3 would be similar to the Project, although incrementally greater.

Solid Waste

Alternative 3, like the Project, would result in an increase in the demand for solid waste services. Alternative 3 would generate 56 tons of solid waste per year. When compared to the 44.3 tons of solid waste per year generated by the Project, Alternative 3 would result in approximately 124 percent increase in solid waste from the Project.[10] Alternative 3 would generate more solid waste than the Project. There is adequate landfill capacity at the Scholl Canyon Landfill to accommodate either Alternative 3 or the Project. Therefore, impacts under both Alternative 3 and the Project would be less than significant. Neither this Alternative nor the Project would result in significant project level impacts on landfill capacities. However, both this alternative and the Project would contribute to cumulative significant and unavoidable solid waste impacts due to County landfill capacity.

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8 Based on 40,000 square feet of general office use and 40,000 square feet of medical office use. 40,000 square feet x 187.5 gal/ksf/day x 365 days / 325,851 gallons = 8.40 afy; 40,000 square feet of medical office x 312.5 gal/ksf/day x 365 days / 325,851 gallons = 14 afy; 8.40 + 14 = 22.40 afy; 22.40 (Alternative 3) – 2.3 (existing water demand) = 20.10 afy.

9 40,000 square feet (medical use) x 250 gal/ksf = 10,000 gpd. 40,000 square feet (general office use) x 150 gal/ksf = 6,000 gpd; 10,000 + 6,000 = 16,000 gpd (Alternative 3) - 1,636 gpd (existing) = 14,364 gpd.

10 Based on 40,000 square feet of medical office use and 40,000 square feet of general office use and a CalRecycle generation rate of 0.006 (for office use) resulting in 37.44 tons per year for medical use and 37.44 tons per year for general office use, resulting in 74.88 tons per year (Alternative 3) minus existing use (19.14 tons per year) = 55.74 = approximately 56.

Environmentally Superior Alternative

State CEQA Guidelines, Section 15126.6(e)(2) requires an EIR to identify an environmentally superior alternative among those evaluated in an EIR. Of the alternatives considered in this section, the No Project/No Development Alternative is environmentally superior to the other alternatives, because this alternative would avoid the significant and unavoidable impacts identified for the Project.

According to the State CEQA Guidelines, if the No Project/No Development Alternative is identified as the environmentally superior alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Of the other alternatives considered, Alternative 3 – Nonresidential Alternative would be considered environmentally superior, as it would avoid the significant exterior noise impact as the 65 dB(A) exterior threshold only applies to private outdoor balconies or patios. Alternative 3 would also result in a substantial reduction in the significant and unavoidable recreation impact when compared to the Project. However, the significant and unavoidable short-term and cumulative noise impacts during construction and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative. Furthermore, this Alternative would increase the amount of air emissions, greenhouse gas emissions, vehicle related noise, and vehicular traffic generated when compared to the Project.

Alternative 3 would not meet the Project objective to redevelop an underutilized property with residential uses and would not provide housing opportunities in close proximity to employment opportunities, public facilities, goods, and services. The Nonresidential Alternative would not fully complement the multifamily uses surrounding the site to the east, south, and west; and would therefore only partially meet the objective of a development that is compatible and complementary with surrounding uses. Therefore, this Alternative would not be considered the environmentally superior alternative.

Alternative 2 result in the greatest incremental reduction of the overall level of impact when compared to the Project and would incrementally reduce, but not avoid, the significant construction and vibration noise impacts identified for the Project. Alternative 2 would also substantially reduce, but not avoid, the significant recreation impacts identified for the Project. It should be noted, however, that Alternative 2 would not result in the avoidance of a significant environment impact when compared to the Project. Overall, the significant and unavoidable short-term noise and vibration impacts during construction, the exterior noise levels from vehicle operations, the long-term and cumulative impact to recreation facilities, the cumulative noise impacts during construction, and the cumulative impacts to fire, police, and solid waste would not be eliminated by this alternative.

Furthermore, Alternative 2 would not meet certain objectives of the Project. Alternative 2 would provide 36 fewer residential units. Less units would result in a lower annual value of the property and thus less property tax revenues to the City than what would be provided by the Project. Fewer housing opportunities in an urban setting would also be provided under Alternative 2, thus partially meeting this objective. Finally, the reduced density under this alternative may not be sufficient to offset the cost of the land and may not be economically feasible for the applicant for this reason.

6.0 EFFECTS NOT FOUND TO BE SIGNIFICANT

INTRODUCTION

Section 15128 of the California Environmental Quality Act (CEQA) Guidelines requires an EIR to briefly describe any possible significant effects that were determined not to be significant and were, therefore, not discussed in detail in the EIR. The items listed below were not found to be significant. Any items not addressed in this section were addressed in **Section 4.0, Environmental Impact Analysis**, of this EIR.

AESTHETICS

Threshold: **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

The Project site is developed and does not contain any natural scenic resources, such as native trees or rock outcroppings. In addition, the Project site is not located within the view corridor of any state scenic highway, as there are no state-designated scenic highways within the City of Glendale.[1] Therefore, the proposed Project would not significantly damage scenic resources within a state scenic highway, and no impact would result.

AGRICULTURE AND FORESTRY RESOURCES

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

The Project site and surrounding area are characterized by features typical of the urban landscape and include commercial, auto repair, medical office, and residential uses. No Farmland, agricultural land, or related operations are found in the area or on the Project site. Implementation of the Project would not involve changes that could result in conversion of Farmland to non-agricultural uses because there are no agricultural uses or Farmland in proximity to the Project site. Therefore, there would be no conversion of Prime Farmland, Unique Farmland, or Farmlands of Statewide Importance to non-agricultural use. No impact to agricultural resources would result.

1 California Department of Transportation, Scenic Highway Program, "Eligible (E) and Officially Designated (OD) Routes"(December 2013), accessed 2014, http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm.

Threshold: Conflict with existing zoning for agricultural use or a Williamson Act contract.

The Project site and surrounding area are currently zoned for urban development. Specifically, the Project site is currently zoned Commercial/Residential Mixed-Use (SFMU), which is intended for urban mixed use development. Therefore, no conflict with zoning for agricultural uses or a Williamson Act contract would occur and no impact to agricultural resources would result.

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

The Project site and surrounding area are currently zoned for urban development. Specifically, the Project site is currently zoned SFMU, which is intended for urban mixed use development. Therefore, no conflict with zoning for forest land, timberland, or timberland zoned Timberland Production would occur and no impact to forestry resources would result.

Threshold: Result in the loss of forest land or conversion of forest land to non-forest use.

Currently, the existing uses on the Project site consist of a 1-story concrete building occupied by a wholesale auto parts business and a parking lot. As the Project site has been built out with existing urban development, the Project would not result in the loss of forest land or the conversion of forest land to non-forest use. No impacts would occur.

Threshold: 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.

There is no farmland or forest land in the vicinity of the Project site, as the area is highly urbanized and developed with commercial uses. No farmland or forest land would be converted to non-agricultural or non-forest uses under the Project. No impact would occur.

BIOLOGICAL RESOURCES

Threshold: **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.**

The majority of the local area, including the Project site, has been developed or landscaped and supports largely non-native plant communities and species. Therefore, only a limited number of plant species that flourish in urban environments, none of which are considered Rare or Endangered, can be found on the Project site. Suitable habitat for sensitive mammal, reptile, amphibian, or fish species does not exist on the Project site or within the surrounding area. No impact would occur.

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

The Project site and the surrounding area are completely developed and disturbed. No riparian habitat or sensitive natural community is located in these areas. Therefore, no impacts to biological resources would occur with implementation of the Project.

Threshold: **Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.), through direct removal, filling, hydrological interruption, or other means.**

The Project site is neither in proximity to, nor does it contain, wetland habitat or a blue-line stream. Therefore, Project implementation would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (CWA), through direct removal, filling, hydrological interruption, or other means. No impact would occur.

Threshold: **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.**

The local area consists of established, highly urbanized, and developed properties. The Project site and the immediate area are almost entirely paved or otherwise developed and do not contain native

resident or migratory species or native nursery sites. In addition, there are no wildlife migration corridors in the Project area. No impact would occur.

Threshold: **Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.**

The Glendale Municipal Code, Chapter 12.44 Indigenous Trees, contains guidelines for the protection and removal of indigenous trees. These trees are defined as any oak species (Valley Oak, California Live Oak, Scrub Oak, Mesa Oak, and California Like Oak), California Bay or California Sycamore that measures 6 inches or more in diameter. No indigenous trees are located on the Project site and implementation of the Project would not conflict with any local policies or ordinances protecting biological resources. Thus, no impact would occur.

Threshold: **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.**

The Project site and the surrounding area have been developed and heavily affected by past activities. No adopted Habitat Conservation Plan or Natural Community Conservation Plan exists for the Project site or immediate area. Consequently, implementation of the Project would not conflict with the provisions of any adopted conservation plan. No impact would occur.

CULTURAL RESOURCES

Threshold: **Cause a substantial adverse change in the significance of a historical resource as defined in State *CEQA Guidelines* Section 15064.5.**

The Project would necessitate the demolition of the existing building and surface parking lot. The existing building at 525 W. Elk Avenue was constructed in 1966 with additional office area added to the building in 1991.[2] A historic resources survey of the San Fernando Road Redevelopment Area, which includes the Project site, was prepared in November 1996. The survey identified properties eligible for listing on the National Register as well as other properties constructed before 1945. The survey did not identify any structure on the property as a "historical resource" as defined by CEQA.[3] The existing building is not listed on the Glendale Register of Historic Resources,[4] nor is it eligible for listing.

2 Los Angeles County Office of the Assessor, "Property Assessment Information System" (2014), http://maps.assessor.lacounty.gov/mapping/viewer.asp.

3 City of Glendale Redevelopment Agency, Initial Study No. 2004-43 (2005).

4 City of Glendale Community Planning Department, Planning Division, "Glendale Register of Historic Places" (Updated February 2014), http://www.ci.glendale.ca.us/planning/preservation/ GlendaleRegister/GlendaleRegisterChart.pdf.

Additionally, the existing building is not listed on the California Register or the National Register of Historic Places. Therefore, no impact would occur.

Threshold: **Cause a substantial adverse change in the significance of an archaeological resource as defined in State *CEQA Guidelines* Section 15064.5.**

Prehistoric and historic archaeological sites are not known to exist within the local area. The Project site was previously graded when the building was constructed in 1966. In addition, the Project site has already been subject to extensive disruption and contains fill materials. Any archaeological resources which may have existed at one time on or beneath the Project site have likely been disturbed. Nonetheless, construction activities associated with Project implementation would have the potential to unearth undocumented resources and result in a significant impact. In the event that archaeological resources are unearthed during Project subsurface activities, all earth-disturbing work within a 100-meter radius (328 feet) must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. With implementation of this standard requirement, which is incorporated as a Project design feature, no impact would occur.

Threshold: **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

Plant and animal fossils are typically found within sedimentary rock deposits. Most of the City of Glendale consists of igneous and metamorphic rock, and the local area is not known to contain paleontological resources. In addition, the Project site has already been subject to extensive disruption and development. Any superficial paleontological resources which may have existed at one time on the Project site have likely been previously unearthed by past development activities. Nonetheless, there is a possibility that paleontological resources may exist at deep levels and could be unearthed with implementation of the Project. In the event that paleontological resources are unearthed during Project subsurface activities, all earth-disturbing work within a 100-meter radius (328 feet) must be temporarily suspended or redirected until a paleontologist has evaluated the nature and significance of the find. After the find has been appropriately mitigated, work in the area may resume. With implementation of this standard requirement, which is incorporated as a Project design feature, no impact would occur.

Threshold: **Disturb any human remains, including those interred outside of formal cemeteries.**

The Project site and surrounding area are characterized by features typical of the urban landscape and include commercial, industrial, and residential uses. No known burial sites exist within the Project area

or surrounding area. Nonetheless, if human remains are encountered during excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 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 will then contact the most likely descendant of the deceased Native American, who will then serve as a consultant on how to proceed with the remains (i.e., avoid removal or rebury). With implementation of this standard requirement, which is incorporated as a Project design feature, no impact would occur.

GEOLOGY AND SOILS

Threshold: **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

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

The Project site is not located within an established Alquist-Priolo Earthquake Fault Zone or designated Fault-Rupture Hazard Zone for surface fault rupture hazards. The Verdugo Fault, located approximately 1.5 miles to the northeast is the closest active fault, and the nearest Fault-Rupture Hazard Zone for active faults with evidence of surface rupture is the Hollywood-Raymond Fault, which is located approximately 2 miles southeast of the Project site. Based on any available geologic data, active or potentially active faults with the potential for surface fault rupture are not known to be located directly beneath or projecting toward the Project site. Therefore, the potential for surface rupture as a result of fault plane displacement during the design life of the Project is less than significant.

- **Strong seismic ground shaking.**

The Project site could be subject to strong ground shaking in the event of an earthquake originating along one of the faults listed as active or potentially active in the Southern California area. This hazard exists throughout Southern California and could pose a risk to public safety and property by exposing people, property, or infrastructure to potentially adverse effects, including strong seismic ground shaking. All structures would be designed in accordance with the International Building Code (IBC), 2010 California Building Code (CBC), applicable City codes and design recommendations found in the soils engineering report;[5] to ensure safety in the event of an earthquake. Since Project construction is expected to commence in mid-2015, all structures would be designed to the 2013 CBC design standards.

5 City of Glendale, *General Plan,* "Safety Element," Summary of Hazards Map, Glendale, California (2003), Plate P-1.

Compliance with applicable building codes for the Project site would minimize structural damage to buildings and ensure safety in the event of a moderate or major earthquake. Therefore, impacts related to strong seismic ground shaking would be less than significant.

- **Seismic-related ground failure, including liquefaction.**

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similarly to a fluid when subjected to high-intensity ground shaking. Liquefaction occurs as a result of three general conditions: (1) shallow groundwater; (2) low-density, fine, clean sandy soils; and (3) high-intensity ground motion. Studies indicate that saturated, loose and medium dense, near-surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. The Project site is not located within an area prone to liquefaction.[6] The potential for liquefaction is very low. Therefore, impacts related to liquefaction would be less than significant.

- **Landslides.**

The topography of the Project site and its immediate built environment is relatively flat, and thus devoid of any distinctive landforms. There are neither known landslides near the Project site nor is the Project site in the path of any known or potential landslides. Therefore, no significant impacts related to landslides would occur.

Threshold: Result in substantial soil erosion or the loss of topsoil.

Construction activity associated with Project development may result in wind and water driven erosion of soils due to grading activities if soil is stockpiled or exposed during construction. However, this impact is considered short-term in nature since the site would be covered with pavement and landscaping upon completion of construction activity. Further, as part of the Project, the applicant would be required to adhere to conditions under the Glendale Municipal Code Section 13.42.060 and prepare and administer a plan that effectively provides for a minimum stormwater quality protection throughout Project construction. The plan will incorporate Best Management Practices (BMPs) to ensure that potential water quality impacts from water driven erosion during construction would be reduced to less than significant. In addition, the applicant would be required to adhere to South Coast Air Quality Management District (SCAQMD) Rule 403—Fugitive Dust, which would further reduce the impact related to soil erosion to less than significant.

6 City of Glendale, *General Plan,* "Safety Element," Summary of Hazards Map, Glendale, California (2003), Plate P-1.

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

The relatively flat topography of the Project site precludes both stability problems and the potential for lurching, which is earth movement at right angles to a cliff or steep slope during ground shaking. As previously discussed, the potential for hazards such as landslides and liquefaction as a result of an earthquake is considered low. Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. However, if lateral containment is present for those zones, then no significant risk of lateral spreading will be present. Since the liquefaction potential at the Project site is low, earthquake-induced lateral spreading is not considered to be a significant seismic hazard at the site.

Ground surface subsidence generally results from the extraction of fluids or gas from the subsurface that can result in a gradual lowering of the ground level. No regional subsidence as a result of groundwater pumping has been reported in Glendale area.[7] Therefore, the potential for ground collapse and other adverse effects due to subsidence to occur on the Project site is considered low.

In order to minimize damage due to geologic hazards, Project design and construction would comply with applicable building codes including the IBC and CBC. Therefore, impacts related to exposure to hazards including landslides, lateral spreading, subsidence, liquefaction and collapse would be less than significant.

Threshold: **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2001), creating substantial risks to life and property.**

The natural soils underlying the Project site consists of gravel, sand, and silt. The soil around the Project site is moderately permeable. Such soils are typically in the low to moderately low range for shrink-swell (e.g., expansion).[8] Additionally, in order to minimize damage due to geologic hazards, the design and construction of the Project would comply with applicable building codes including the IBC and CBC. Therefore, the potential for impacts related to expansive soil would be less than significant.

7 Earth Consultants International, *Technical Background Report to the 2003 General Plan Safety Element* (July 2003) p. 2-20.
8 City of Glendale, *General Plan,* "Safety Element" (2003).

Threshold: **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.**

The Project does not include the use of septic tanks or alternative wastewater disposal systems. The Project would be connected to the City of Glendale's wastewater system. Therefore, no impact would occur with the implementation of the Project. Consequently, impacts would be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

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

The Project involves the development of a 5-story building, consisting of 71 multifamily residential units. Associated uses do not generally involve the routine use, transport, or disposal of significant amounts of hazardous materials; however, on-site support service, such as janitorial services, may involve the use of small amounts of hazardous materials. These materials would be stored on site in small quantities.

A variety of state and federal laws govern the generation, treatment, and disposal of hazardous wastes. The Glendale Fire Department and Los Angeles County have the authority to inspect on-site uses and to enforce state and federal laws governing the storage, use, transport, and disposal of hazardous materials and wastes. In addition, Los Angeles County requires that an annual inventory of hazardous materials in use on site, as well as a business emergency plan, be submitted for an annual review, as required by Emergency Planning and Right-to-Know Act (SARA Title III) and Chapter 6.95 of the California Health and Safety Code. These requirements would be mandated according to state and federal law and are incorporated as Project design features. As such, potential impacts are considered to be less than significant.

Threshold: **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.**

The existing 1-story wholesale auto parts was constructed in 1966, prior to the 1970 ban on the use of asbestos and lead based paint, and the building may contain asbestos and/or lead based paint. The building will be demolished in preparation for the Project. Any asbestos found would be properly removed and abated as required by State law, specifically Title 22 of the California Code of Regulations (CCR), the California Health and Safety Code including the Hazardous Waste Control Law (HWCL).

According to the California Department of Toxic Substances Control's (DTSC) EnviroStor Database, the Project site has not been listed as an environmental cleanup area, a permitted hazardous waste facility or a substance site (Cortese List).[9] Hazardous material impacts typically occur in a local or site–specific context. Although other foreseeable developments within the area will likely increase the potential to disturb existing contamination, the handling of hazardous materials would be required to adhere to applicable federal, state, and local requirements that regulate work and public safety. Therefore, impacts of the Project would not have the potential to create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be considered less than significant.

Threshold: **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.**

The nearest existing school is the Edison Elementary School, which is located approximately 0.15 miles south of the Project site. Operation of the Project would not emit hazardous emissions or handle hazardous materials. Although construction of the multifamily residential building could result in emissions of potentially hazardous materials, these emissions would be temporary in nature and would not exceed SCAQMD thresholds for localized emissions. Standard SCAQMD regulations regarding emissions during construction would apply to the Project. Therefore, impacts would be less than significant.

Threshold: **Be located on a site that is included on a list of hazardous materials sites compiled by Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.**

The Project site is not located on a list of hazardous materials sites compiled by Government Code Section 65962.5. As mentioned above, the Project site is not listed as a hazardous material site on DTSC's EnviroStor Database. The nearest sites with the potential for any hazardous materials which may affect the Project site were found on sites located at 637 West Colorado Street (La Deau Manufacturing Co.) approximately 0.17 miles northwest of the site, 5040 San Fernando Road (Kinner Motors), approximately 0.25 miles northwest of the Project Site, and 4685 San Fernando Road (Ralphs Grocery Company), approximately 0.35 miles south of the Project Site.[10] The Ralphs Grocery Company was certified and remediated in 1985 by the DTSC. The remaining sites are at a lower sea level elevation

9 Department of Toxic Control Substances Control (DTSC), EnviroStor Database, accessed July 31, 2014, http://www.envirostor.dtsc.ca.gov/public/.

10 Department of Toxic Control Substances Control (DTSC), EnviroStor Database, accessed July 31, 2014, http://www.envirostor.dtsc.ca.gov/public/.

when compared to the Project site. As such, the previously discussed sites would not have the potential to directly or indirectly impact the Project site. Impacts would be less than significant.

The Project site is located within the Crystal Springs Wellfield Area 2 (Area 2), South Glendale Operable Unit of the San Fernando Valley National Priority List, or Superfund site. The United States Environmental Protection Agency (US EPA) has made this classification based on findings of significant and widespread contamination of groundwater with trichloroethylene (TCE) and perchloroethylene (PCE).[11] According to reports published by the US EPA, the Project site may be located on the edge of the San Fernando Valley Superfund site or outside of the plume altogether. The Project site was investigated in connection with the Superfund site in the early 1990s and was granted a No Further Action status by the US EPA in 1995. The City of Glendale assumed operation of the Glendale Water Treatment Plan to extract, treat, disinfect, and blend the contaminated groundwater. The strict regulatory control over water quality by the State's Department of Health, Office of Drinking Water, the Regional Water Quality Control Board (RWQCB), and other agencies, ensure that the water residents consume is safe and that drinking water contains concentrations of contaminants above regulatory standards.

Related projects may be located on or near a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. Development of any of the related projects would be required to comply with applicable laws and regulations pertaining to hazardous wastes, and the risk with identified hazardous material sites would be eliminated or reduced through proper handling, disposal practice, and/or clean up procedures. Development would be denied by the City of Glendale if adequate cleanup or treatment is not feasible. Additionally, no violations or unauthorized releases have been reported at the Project site. Accordingly, cumulative impacts to the public or environment associated with development on or near listed contaminated sites would be less than significant.

Threshold: **Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.**

The Project site is neither located within an airport land use plan nor is it located within 2 miles of a public airport or public use airport. The closest public airport or public use airport to the Project site is the Burbank-Glendale-Pasadena (Bob Hope) Airport located approximately 6.0 miles to the northwest. Therefore, no impact would occur.

11 US Environmental Protection Agency, Pacific Southwest, Region 9: Superfund, "San Fernando Valley 9 (Area 2 Glendale)" (2013), accessed August 8, 2014http://yosemite.epa.gov/r9/sfund/r9sfdocw.nsf/ViewByEPAID /CAD980894901.

Threshold: **Be within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.**

The Project site is not within the vicinity of a private airstrip. Therefore, no impact would occur.

Threshold: **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

According to the City of Glendale Safety Element, Brand Boulevard, which is located to the east of the Project site, is a City disaster response route, and Colorado Street, which is located to the north of the Project site, is a County evacuation route. These routes are the main thoroughfares to be used by emergency response services during an emergency and, if the situation warrants, the evacuation of an area. Implementation of the Project would neither result in a reduction of the number of lanes along these roadway segments in the Project area nor result in the placement of an impediment to the flow of traffic such as medians.

While construction of the Project would unlikely impede emergency traffic along West Elk Avenue, the construction contractor would notify the City of Glendale Police and Fire Department of construction activities along West Elk Avenue; to allow emergency response teams to reroute traffic to an alternate route, if needed. No significant impacts would occur.

Threshold: **Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.**

The Project site and surrounding area are characterized by features typical of the urban landscape. The Project site is not contained within a fire hazard area as identified in the City of Glendale General Plan Safety Element. Additionally, landscaping plans do not include plantings of flammable brush, grass, or trees on or adjacent to the site. Consequently, implementation of the Project would not result in the exposure of people or structures to hazards associated with wildland fires, and no impact would occur.

HYDROLOGY AND WATER QUALITY

Threshold: **Violate any water quality standards or waste discharge requirements.**

Otherwise substantially degrade water quality.

The Project site currently contains a 1-story wholesale auto parts building and surface parking lot. Demolition activities would result in the exposure of soils. However, the elevation of the exposed soils

would be below the adjacent sidewalks. The exposed on-site soils would infiltrate rainwater during a storm event. During excavation and grading, contaminated soils may be exposed and/or disturbed; this could impact surface water quality through contact during storm events.

The applicant is required to satisfy all applicable requirements of the National Pollutant Discharge Elimination System (NPDES) Program and Chapter 13.42, Storm Water and Urban Runoff Pollution Prevention Control and Standard Urban Storm Water Mitigation Plan (SUSMP) of the Glendale Municipal Code that are in effect at the time of Project construction to the satisfaction of the City of Glendale Public Works Department. These requirements include preparation of a stormwater pollution prevention plan (SWPPP) containing structural treatment and source control measures appropriate and applicable to the Project. The SWPPP will incorporate BMPs by requiring controls of pollutant discharges that utilize best available technology (BAT) economically achievable and best conventional pollutant control technology (BCT) to reduce pollutants. Examples of BAT/BCT that may be implemented during site grading and construction could include silt fences, sand bag barriers, and stabilization of the construction entrance/exit. Preparation of the SWPPP would be a requirement of the Project per City of Glendale requirements. Implementation of BMPs would ensure that Los Angeles RWQCB water quality standards are met during construction activities of the Project. Therefore, no significant impact during construction would occur.

The Project would maintain, if not decrease, the intensity of activities on the site, including a decrease in potential deposition of pollutants generated by motor vehicle use on project roadways and parking areas, and the maintenance and operation of landscape areas. Storm water quality is generally affected by the length of time since the last rainfall, rainfall intensity, urban uses of the area, and quantity of transported sediment. Typical urban water quality pollutants usually result from motor vehicle operations, oil and grease residues, fertilizer/pesticide uses, human/animal littering, careless material storage and handling, and poor property management. The majority of pollutant loads are usually washed away during the first flush of the storm occurring after the dry-season period.

These pollutants have the potential to degrade water quality and may result in significant impacts. The quality of runoff from the Project site would be subject to Section 402(p) of the CWA under the NPDES program. Development projects are required by the Glendale Municipal Code to submit and implement a SUSMP containing design features and BMPs appropriate and applicable to the project. Applicable BMPs include the filtration of stormwater runoff through planters or equivalent landscape features. Once the onsite stormwater runoff is filtered it would be conveyed through the proposed curb and into the City storm drain system. Due to the size of the site and the Project design features, infiltration of stormwater is not required. Potential water quality impacts of the Project would be less than significant through the preparation of the SUSMP and implementation of the BMPs as specified in the NPDES

Permit. Therefore, the potential for impacts related to water quality and stormwater discharge would not be significant.

Threshold: **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned land uses for which permits have been granted).**

Currently, the City utilizes water from Glendale Water & Power (GWP), which relies on some local groundwater supplies. Consequently, implementation of the Project would result in additional development that could indirectly require an increased use of groundwater through the provision of potable water by GWP; however, as discussed in **Section 4.7, Utilities and Service Systems,** of this EIR, the Project's water demand is within water projections. Groundwater to be consumed by the Project would be utilized according to current plans and projections of the GWP groundwater supplies. As a result, implementation of the Project would not substantially deplete groundwater supplies. In addition, the groundwater basins are governed by the California Superior Court decision, *City of Los Angeles vs. City of San Fernando, et al.*, and the Basin Watermaster is vested with the responsibility to monitor and account for any groundwater extraction within the Project area with sustainability as a goal. The Project would not extract groundwater on an operational basis. Consequently, impacts would be less than significant.

The Project site largely consists of impervious surfaces at this time and this would not change substantially with the development of the site. Further, the site is neither a designated groundwater recharge area nor serves as a primary source of groundwater recharge within the San Fernando or Verdugo Basins. Consequently, the potential for impacts related to groundwater extraction and recharge will not be significant.

Threshold: **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.

The Project site is developed and is served by an existing storm water collection and conveyance system. As a large portion of the site is covered with impervious surfaces at this time, the quantity of runoff would not change substantially with implementation of the Project. All runoff would continue to be conveyed via streets and gutters to storm drain locations around the site. As a result, the Project would not require any substantial changes to the existing drainage pattern of the site or the area, nor would it affect the capacity of the existing storm drain system. Furthermore, as discussed above, the Project site is less than one acre and would only need to meet minimum requirements for stormwater runoff control. The Project would however, filter onsite drainage through planters and ground landscaped areas prior to being conveyed into the City storm drain system around the site. Filtered stormwater runoff would be conveyed through the existing curb into the City storm drain system. In addition, in accordance with Glendale Municipal Code Chapter 13.42, Storm Water and Urban Runoff Pollution Prevention Control and Standard Urban Storm Water Mitigation Plan, a SUSMP containing design features and BMPs to reduce post-construction pollutants in storm water discharges would be submitted and implemented as part of the Project. Consequently, the potential for impacts are considered to be less than significant.

Threshold: **Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.**

Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

According to Federal Emergency Management Agency flood hazard maps, the Project site is not located within a 100-year flood zone; therefore, the Project would not place housing within a 100-year flood

hazard area or result in structures being constructed that would impede or redirect flood flows.[12] The Project would not be subject to flooding, and, therefore, no impact would occur.

Threshold: **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.**

There are seven dams located within the City of Glendale.[13] The nearest dam to the Project site is the Diederich Reservoir, located approximately 2 miles northeast of the Project site. According to the City of Glendale General Plan Safety Element, the Project is not located within the inundation zone of this dam or other dams located within the City or elsewhere.[14] Accordingly, the risk associated with flooding resulting from dam failure is considered less than significant.

Threshold: **Create the potential for inundation by seiche, tsunami, or mudflow.**

The Project site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced seiches, which are wave oscillations in an enclosed or semi-enclosed body of water. The Project site is not located in a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site. Additionally, the Project site is not located near any hillside areas that could produce mudflows. Therefore, no impacts related to inundation by seiche, tsunami, or mudflow would result from implementation of the Project.

LAND USE AND PLANNING

Threshold: **Conflict with any applicable habitat conservation plan or natural community conservation plan.**

The Project site and surrounding area have been developed and heavily affected by past activities. The Project site and immediate area are not located in an adopted habitat conservation plan or natural community conservation plan area. Consequently, implementation of the Project would not conflict with the provisions of any adopted conservation plan, and no impact would occur.

12 City of Glendale, *General Plan*, "Safety Element" (2003), p. 3-7.
13 City of Glendale, *General Plan*, "Safety Element" (2003), p. 3-7.
14 City of Glendale, *General Plan*, "Safety Element" (2003), Plate P-2.

MINERAL RESOURCES

Threshold: **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.**

Threshold: **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.**

The Project site and surrounding area are characterized by features typical of the urban landscape and include commercial and residential uses. The State Geologist has mapped the Glendale area for aggregate resources. According to Map 4-28 of the City of Glendale General Plan Open Space and Conservation Element, the Project site is located within a Mineral Resource Zone (MRZ)-3. MRZ-3 is defined as an area containing mineral deposits the significance of which cannot be evaluated from available data.[15] Since no significant mineral deposits are known to exist on the Project site or surrounding areas, no impact would occur.

NOISE

Threshold: **For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

The Project site is neither located within an airport land use plan nor is it located within 2 miles of a public airport or public use airport. The closest public airport or public use airport to the Project site is the Bob Hope Airport located about 6.0 miles to the northwest. Consequently, no impacts associated with excessive airport noise levels would result.

Threshold: **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.**

The Project site is not within the vicinity of a private airstrip. Consequently, no impacts associated with noise would result for residents of the Project.

15 City of Glendale, *General Plan*, "Open Space and Conservation Element," Map 4028 (1993), p. 4-44.

POPULATION AND HOUSING

Threshold: **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure).**

A project's population impacts are based on an analysis of the probable number of residents associated with the number of residential dwelling units planned in the Project site. The Project's estimated population is then compared with official population growth forecasts for the City. The 71 multifamily residential units would consist of 1 studio unit, 18 one-bedroom units, and 52 two-bedroom units. According to the California Department of Finance estimates, the current population (2014) within the City of Glendale is 195,799 residents with 72,786 occupied housing units, which equates to an average household of 2.6 residents.[16] Based on the mix of multifamily residential units and an average household size of 2.6 residents, the Project would generate approximately 185 residents.

Population and housing impacts are typically based on the number of new dwelling units planned within the Project site, as compared to the housing projections. The Project would account for approximately 6 percent of the anticipated increase in residents within the City between 2014 and 2020, which is consistent with the estimated growth projection.[17] Therefore, the Project would not result in substantial population growth in the area. The number of occupied housing units is expected to increase to 75,200 housing units between 2014 and 2020, an increase of approximately 2,414 housing units. The Project would provide approximately 2.9 percent of the 2,414 housing units that were projected to be constructed within the City between 2014 and 2020.[18] Therefore, the residential component of the Project would not result in substantial or unplanned housing growth.

Indirect growth in population and housing can also occur from major infrastructure improvements that facilitate additional growth beyond the Project. The Project site is characterized as an urban area that is currently served by existing circulation and utility infrastructure. The Project developers will fund their share of allocation for any necessary public infrastructure associated with development. Indirect growth from the extension of roads and infrastructure would not be anticipated from the Project, as it would be served by existing infrastructure and would not add any new roadways. Some infrastructure upgrades and connections are proposed and may be required as mitigation. The Project does not include any

16 State of California Department of Finance, "E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2011–2014 (May 2014), http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php.

17 198,900 (2020 projection) – 195,799 (2014 population) = 3,101 residents. 185 Project residents / 3,101 = 0.0596 or 6 percent.

18 75,200 (2020 housing units) – 72,786 (2014 occupied housing units) = 2,414 housing units. 71 Project residential units / 2,414 = 0.0294 or 2.9 percent.

major road improvements or substantial infrastructure modifications that would facilitate additional growth in the general area. Due to the fact that new infrastructure upgrades would be minimal, it is not anticipated that the infrastructure improvements would result in measurable population growth in or around the project area. As such, the indirect population growth resulting from infrastructure improvements associated with the Project are considered less than significant.

Threshold: **Would displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.**

Would displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

No residential dwelling units currently exist on the Project site. The Project would redevelop the Project site and add 71 multifamily residential units to the area. No housing or residential populations would be displaced by development of the Project, and the construction of replacement housing elsewhere would not be necessary. No impact would occur.

TRAFFIC AND TRANSPORTATION

Threshold: **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.**

As required by the City of Glendale, a Construction Traffic Control Plan will be implemented to minimize potential conflicts between construction activity and through traffic. The Construction Traffic Control Plan would identify all traffic control measures, signs, and delineators to be implemented by the construction contractor through the duration of excavation and construction activity. In addition, a truck haul route program would also be reviewed and approved by the Glendale Public Works Department and implemented to minimize conflicts between haul trucks traveling to and from the Project site and through traffic on roadways surrounding the Project. The program would specify access points to the Project site and delineate approved haul routes.

As the volume of construction-related traffic would be substantially less than that associated with Project operation, construction traffic would not result in a significant impact. Therefore, the traffic impacts associated with construction activities are determined to be less than significant and impacts

would be further reduced with the implementation of the following required Construction Traffic Control Plan components:

- Maintain existing access for land uses in proximity of the Project site.
- Limit any potential lane closures to off-peak travel periods.
- Schedule receipt of construction materials during non-peak travel periods, to the extent possible.
- Limit the majority of construction-related traffic to off-peak periods.
- Coordinate deliveries to reduce the potential of trucks waiting to unload for extended periods of time.
- Prohibit parking by construction workers on adjacent streets and direct construction workers to available parking as determined in conjunction with City staff.

The existing wholesale auto parts' building generates 2 AM peak-hour trips and 2 PM peak-hour trips and a total of 17 daily trips. The Project would generate 36 AM peak-hour trips and 44 PM peak-hour trips and a total of 472 daily trips. When compared to existing conditions, implementation of the Project would result in an increase of 34 AM peak-hour trips, and an increase of 42 PM peak-hour trips, and an increase of 455 Daily Trips, as indicated in **Appendix 6.0, Traffic Memorandum**. The increase in trips generated by the Project is less than 50 trips in both the AM and PM peak periods which is the City's threshold for the preparation of a Traffic Impact Study. Because the Project would not add 50 or more trips during either the AM or PM weekday peak hours, the Project would not result in significant traffic impacts.

Threshold: **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.**

The nearest Congestion Management Program (CMP) arterial monitoring intersection to the Project site is CMP No. 73, located at Ventura Boulevard and Lankershim Boulevard, approximately 5.5 miles west of the Project Site. The CMP Transportation Impact Analysis guidelines require that intersection-monitoring locations must be examined if the Project will add 50 or more trips during either the AM or PM weekday peak periods. The existing building generates 2 AM peak-hour trips and 2 PM peak-hour trips and a total of 17 Daily Trips. Based on the trip generation and distribution of the Project, implementation of the Project would result in an increase of 34 AM peak-hour trips and 42 PM peak-hour trips, as shown in

Appendix 6.0, **Traffic Memorandum**. No further analysis of potential impacts to CMP intersections or freeway segments is required. Because the Project would not add 50 or more trips during either the AM or PM weekday peak hours, the Project does not require intersection analysis. Therefore, the Project would not result in a significant impact to intersection monitoring locations that are part of the CMP highway system.

Threshold: **Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).**

Result in inadequate emergency access.

The Project would use the existing network of regional and local roadways located in the vicinity of the Project site. Vehicle access to the Project site would be provided by the Project driveway located on West Elk Avenue. The driveway at West Elk Avenue would be stop sign controlled and provide full access to the site for ingress and egress movements.

The Project has a high level of accessibility for emergency vehicles, from a site perspective. West Elk Avenue would provide a direct route to the Project site for emergency vehicles. As a result, Project impacts on emergency vehicle access would be less than significant.

Threshold: **Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.**

The Los Angeles County Metropolitan Transportation Authority (Metro) and the City of Glendale Beeline Bus currently provide public bus transit service in the Project area. Transit service is provided by Metro and the Beeline Service. The Metro system includes Lines 183, 201, and 603 along Pacific Avenue and Colorado Street. The Beeline Bus system includes Lines GB5 and GB6 also along Pacific Avenue and Colorado Street.

Pursuant to the CMP guidelines, over a 24-hour period, the Project is forecast to generate demand for 22 daily transit trips, 2 of which would occur during the AM peak hour and 2 of which would occur during the PM peak hour. The calculations for the morning, evening, and daily traffic conditions are as follows:

- Morning (AM) Peak Hour = 34 x 1.4 x 0.035 = 2 Transit Trips
- Evening (PM) Peak Hour = 42 x 1.4 x 0.035 = 2 Transit Trips

- Daily = 455 x 1.4 x 0.035 = 22 Transit Trips

Based on the projected increased demand for transit services generated by the Project, it is anticipated that the existing transit service in the Project area would adequately accommodate the Project-generated transit trips. The Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease performance or safety of such facilities.

Threshold: **Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

The Project site is not located in the vicinity of an airport. Consequently, the Project would not result in a change in air traffic patterns that would result in safety risks. No impact would occur.

UTILITIES AND SERVICE SYSTEMS

Threshold: **Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.**

Under Section 401 of the CWA, the RWQCB issues NPDES permits to regulate waste discharged to "waters of the nation," which includes reservoirs, lakes, and their tributary waters. Waste discharges include discharges of storm water and construction Project discharges. A construction project resulting in the disturbance of more than 1.0 acre requires a NPDES Permit. Construction projects are also required to prepare a SWPPP. In addition, the Project would be required to submit an SUSMP to mitigate urban storm water runoff. Prior to the issuance of building permits, the Project applicant would be required to satisfy the requirements related to the payment of fees and/or the provisions of adequate wastewater facilities. The Project would comply with the waste discharge prohibitions and water quality objectives established by the Los Angeles RWCQB. Therefore, no impact would occur.

Threshold: **Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.**

No new sources of water supply, such as groundwater, are required to meet the Project's water demand. Water serving the Project would be treated by existing extraction and treatment facilities, and no new facilities, or expansion of existing facilities, would be required. Therefore, no impact would occur.

7.0 OTHER CEQA SECTIONS

This section considers and discusses other topics identified in the State CEQA Guidelines, including the potential for the Project to induce growth and the identification of irreversible impacts.

7.1 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the California Environmental Quality Act (CEQA) Guidelines, as amended, requires the discussion of the ways in which a project could directly or indirectly foster economic growth, population growth, or the construction of additional housing in the surrounding environment. This discussion should also include projects that would remove obstacles to population growth. It should include the characteristics of a project, which may encourage and/or facilitate other activities that could significantly affect the environment, either individually or cumulatively. CEQA emphasizes that growth in an area should not be considered beneficial, detrimental, or of little significance. The purpose of this section is to evaluate the growth-inducing potential and impact of this Project.

In general, a project may foster spatial, economic or population growth in a geographic area if it meets any one of the criteria that are identified as follows:

- Removal of an impediment to growth (e.g., the establishment of an essential public service or the provision of new access to an area)
- Economic expansion or growth (e.g., construction of additional housing, changes in revenue base, employment expansion)
- Establishment of a precedent-setting action (e.g., an innovation, a change in zoning or general plan designation)
- Development or encroachment in an isolated or adjacent area of open space (being distinct from an "infill" type of project)

Should a project meet any one of these criteria, it can be considered growth inducing. An evaluation of this Project compared against these growth-inducing criteria is provided in the following.

Removal of an Impediment to Growth

Growth in an area may result from the removal of physical impediments or restrictions to growth, as well as the removal of planning impediments resulting from land use plans and policies. In this context, physical growth impediments may include nonexistent or inadequate access to an area or the lack of essential public services (e.g., water service), while planning impediments may include restrictive zoning and/or general plan designations.

The surrounding area contains established land uses and has supporting infrastructure. Construction of the proposed use would require the modification and/or improvement of existing infrastructure to support the increased land use intensity associated with the Project. Such modifications and improvements to infrastructure are discussed in further detail below. Given the urban nature of the site

and surroundings, and the existence of established infrastructure, no growth-inducing impacts would result from Project development.

An established transportation network exists in the surrounding area that offers local and regional access to the Project site. Access to the subterranean parking structure would be provided by a driveway on West Elk Avenue. On-street parking will not be allowed along the frontage of the Project to facilitate inbound and outbound traffic and to maintain visibility for outbound drivers.

Pedestrian access to the ground floor would be provided along the front façades of the building. The sidewalks would be constructed in compliance with the American with Disabilities Act (ADA) and would provide compliant handicap ramps. Each level of the parking structure would provide pedestrian access to each corresponding floor of the building. All improvements would be designed to serve only the Project and therefore, would not induce growth within the area.

The water and energy (electricity and natural gas) infrastructure required to support the Project would be available to the Project site from surrounding streets. The Project site is currently and would likely continue to be served by an 8-inch water distribution line located beneath West Elk Avenue. Lateral lines extending from the proposed buildings would connect to existing water and sewer lines. No new water mains other than those that may be required to serve the Project site would be constructed. As such, the development of on-site water infrastructure to serve the Project would not induce growth within the area.

There is an existing 8-inch sewer line that serves the Project site. City of Glendale policy requires upgrades to sewer lines serving new development as needed to accommodate increases in the volume of wastewater discharged to the collection system. No new sewer lines other than those that may be required to serve the Project site would be constructed. As such, the development of on-site sewer infrastructure to serve the Project would not induce growth within the area.

Electricity and natural gas transmission infrastructure presently exists on and near the Project site. Development of the Project may require the construction of an on-site distribution system to convey this energy to uses on the site. This system would be designed to accommodate the uses proposed within the Project, and would not extend beyond the requirements or boundary of the Project site. The on-site service lines would be sized to meet the demands of the Project. No growth-inducing impacts resulting from the extension of electrical or natural gas service lines would occur with the development of the Project.

As discussed above, the design and construction of roadway, water, sewer, electrical, and natural gas infrastructure needed to accommodate the Project would not induce growth within undeveloped areas surrounding the Project area.

Economic Growth

The second criterion by which growth inducement can be measured involves economic considerations. In the short term, the Project would provide for short-term construction employment opportunities. It is anticipated that construction employees would commute from elsewhere in the region, rather than relocate to the City of Glendale for a temporary assignment.

Long-term growth, should it occur, would be primarily in the form of an economic response to the new residents who would occupy the site. The increase of 185 new residents associated with the Project may result in a slight corresponding increase in demand for City goods and services. However, given the relatively small size of the Project in relation to City population, the economic contribution of this Project alone would not be considered growth inducing.

Precedent-Setting Action

Changes from a project that could be precedent setting include (among others) approval of General Plan amendments, subdivision, and variances that could have implications for other properties or that could make it easier for other properties to develop.

The Project site is currently designated as "Mixed Use" on the General Plan Land Use Map and zoned as Commercial/Residential Mixed-Use (SFMU) on the Glendale Zoning Map. The Mixed-Use designation permits a mix of commercial and residential uses as well as exclusively commercial, industrial, or residential land uses. Therefore, the residential use as proposed are permitted under the existing General Plan and existing zoning designations. The SFMU zone designation allows buildings on a site when not abutting the Medium Density Residential (R-2250) zone to be up to 6 stories and 75 feet in height, with a maximum density of 100 dwelling units per acre. Since the height of the Project building would be 73 feet above grade, the Project would comply with SFMU height restrictions. With 71 units on 0.72 acres of lot area, the Project would also comply with SFMU density requirements.

Development can be considered growth inducing when it requires the extension of urban infrastructure into isolated localities that are presently devoid of such facilities. The Project site is situated in an area that is surrounded to the north, east, south, and west by commercial, medical, automotive, and residential uses that contain established infrastructure. Existing uses surrounding the Project site consist of the 5-story ICIS apartment complex and commercial uses to the west; auto repair and medical office uses, including Hamlet’s BMW service and a medical office building to the north; a 2-story apartment

building to the east; and single and multifamily residential uses to the south of West Elk Avenue. Consequently, the Project would not induce growth under this criterion because it would not result in the urbanization of land in an isolated location.

State CEQA Guidelines require an EIR to "discuss the ways" a project could be growth inducing and "discuss the characteristics of some projects that may encourage activities that could significantly affect the environment." However, the State CEQA Guidelines do not require an EIR to predict or speculate where such growth would occur, in what form it would occur, or when it would occur. Attempting to determine the environmental impacts created by growth that might be induced by the Project is speculative because the size, type, and location of specific future projects that may be induced by this Project are unknown at the present time. Therefore, such impacts are too speculative to evaluate.[1] To the extent that specific projects are known (as discussed in **Section 4.0, Environmental Impact Analysis**, of this EIR), those projects have already been or would be subjected to their own environmental analysis. Additionally, due to the variables that must be considered when examining the mechanics of urban growth (e.g., market forces, demographic trends), it would be speculative to state conclusively that implementation of the Project alone would induce growth in the surrounding area. Further analysis of impacts associated with growth in the Glendale area, and corresponding cumulative impact assessment methodology, can be found in the cumulative analyses for each individual topic addressed in **Section 4.0**.

1 State CEQA Guidelines, sec. 15145.

7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the State CEQA Guidelines states that use of nonrenewable resources during the initial and continued phases of a project may be irreversible if a large commitment of these resources makes their removal, indirect removal, or nonuse thereafter unlikely. This section of the environmental impact report (EIR) evaluates whether the Project would result in the irretrievable commitment of resources, or would cause irreversible changes in the environment. Also, in accordance with Section 15126.2 of the State CEQA Guidelines, this section identifies any irreversible damage that could result from environmental accidents associated with the Project.

Irreversible Commitment of Resources

The Project proposes to replace the existing 1-story structure and associated parking lot with a 5-story multifamily residential building and two levels of subterranean parking underneath. The Project would provide 71 multifamily residential units, with a mezzanine above the fifth story. The subterranean parking structure would accommodate 161 parking spaces. In addition, the Project is designed to include 4,954 square feet of landscaping throughout the property.

The construction and operation of the Project would contribute to the incremental depletion of resources, including renewable and nonrenewable resources. Resources, such as lumber and other forest products, are generally considered renewable resources. Such resources would be replenished over the lifetime of the Project. For example, lumber supplies are increased as seedlings mature into trees. As such, the development of the Project would not result in the irreversible commitment of renewable resources. Nevertheless, there would be an incremental increase in the demand for these resources over the life of the Project.

Nonrenewable resources, such as natural gas, petroleum products, asphalt, petrochemical construction, sand, gravel, and copper and other metals, are considered commodities that are available in a finite supply. The processes that created these resources occur over a long period of time. Therefore, the replacement of these resources would not occur over the life of the Project. To varying degrees, the aforementioned materials are all readily available, and some materials, such as asphalt, sand, and gravel, are abundant. Other commodities, such as metals, natural gas, and petroleum products, are also readily available, but they are finite in supply, given the length of time required by the natural process to create them.

The demand for all such resources is expected to increase regardless of whether or not the Project is developed. The State Department of Finance indicates that the population of Southern California will increase 62 percent over the 30-year period between 1990 and 2020. This increase in population would

directly result in the need for more retail, commercial, and residential facilities to provide the needed services associated with this growth. If not consumed by this Project, these resources would likely be committed to other projects in the region intended to meet this anticipated growth. Furthermore, the investment of resources in the Project would be typical of the level of investment normally required for a residential use of this scale. Mitigation measures have been included in this EIR to reduce and minimize Project and cumulative impacts.

Irreversible Environmental Changes

Irreversible long-term environmental changes associated with the Project would include a change in the visual character of the site as a result of the conversion of the Project site to a new residential use. Additional irreversible environmental changes would include the increase in local vehicular traffic, and the resultant increase in air pollutants, greenhouse gas emissions, and noise emissions generated by this traffic, among other impacts. Design features have been incorporated into the development proposal and mitigation measures are proposed in this EIR that would minimize the effects of the environmental changes associated with the development of the Project to the maximum degree feasible. In addition, the Project site is an urban site already and the implementation of the Project would improve this location of the City. Even with this being the case, the Project would result in short-term noise and vibration impacts during construction; long-term and cumulative impacts to recreation facilities; and cumulative impacts to fire, police, and solid waste.

Potential Environmental Damage from Accidents

The Project proposes no uniquely hazardous uses, and its operation would not be expected to cause environmental accidents that would affect other areas. The Project site is located within a seismically active region and would be exposed to ground shaking during a seismic event. Conformance with the regulatory provisions of the City of Glendale, the California Building Code (CBC), and all other applicable building codes pertaining to construction standards would minimize, to the extent feasible, damage, and injuries in the event of such an occurrence.

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