

PUBLIC REVIEW DRAFT | APRIL 2015



Sepulveda and Panama Mixed Use Project

Initial Study/Mitigated Negative Declaration



PREPARED FOR:
City of Carson

PREPARED BY:
RBF Consulting
A Michael Baker International Company

**PUBLIC REVIEW DRAFT
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION**

**Sepulveda and Panama
Mixed Use Project**

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- A. Air Quality/Greenhouse Gas Data
- B. Hazardous Materials Documentation
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**INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION AND TECHNICAL APPENDICES
ON CD**



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1.0 INTRODUCTION

The Sepulveda and Panama Mixed Use Project (herein referenced as the “project”) proposes a mixed-use development with 65 senior residential apartment units and 3,000 square feet of commercial space on a 1.22-acre site located to the southwest of East Sepulveda Boulevard and Panama Avenue and 200 feet east of the East Sepulveda Boulevard and Marbella Avenue intersection. The proposed senior housing units would consist of 58 one-bedroom units, and 7 two-bedroom units. The commercial retail uses would encompass approximately 3,000 square feet and the parking garage would include 67 parking spaces. The project would also feature approximately 15,150 square feet of common areas that would include a community space (a community room, community gardens, outdoor seating, and theater area), podium gardens, and park area, and approximately 5,590 square feet of private open space.

Following a preliminary review of the proposed project, the City of Carson has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study addresses the direct, indirect, and cumulative environmental effects of the project, as proposed.

1.1 STATUTORY AUTHORITY AND REQUIREMENTS

In accordance with Sections 15051 and 15367 of the California Code of Regulations (CCR), the City of Carson (City) is identified as the Lead Agency for the proposed project. Under CEQA (Public Resources Code Section 21000-21177) and pursuant to Section 15063 of the CCR, the City is required to undertake the preparation of an Initial Study to determine if the proposed project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze project-related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the proposed project would not have a significant effect on the environment and shall prepare a Negative Declaration. Such determination can be made only if “there is no substantial evidence in light of the whole record before the Lead Agency” that such impacts may occur (Section 21080(c), Public Resources Code).

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not a policy document, and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

The environmental documentation and supporting analysis is subject to a public review period. During this review, public agency comments on the document relative to environmental issues should be addressed to the City of Carson. Following review of any comments received, the City will consider these comments as a part of the project's environmental review and include them with the Initial Study documentation for consideration by the City.

1.2 PURPOSE

Section 15063 of the *CEQA Guidelines* identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;



- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 CONSULTATION

As soon as the Lead Agency (in this case, the City of Carson) has determined that an Initial Study would be required for the project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 INCORPORATION BY REFERENCE

The following documents were utilized during preparation of this Initial Study, and are incorporated into this document by reference. These documents are available for review at the City of Carson located at 701 East Carson Street, Carson, California, 90745.

- Carson General Plan (October 11, 2004). The *Carson General Plan* (General Plan) provides guidance to City decision-makers to evaluate land use changes, determine funding and budget recommendations and decisions, and to evaluate specific development proposals. The General Plan allows City staff to regulate building and development and to make recommendations on projects, as well as allowing residents, neighborhood groups, and the community to better understand the long-range plans and vision of the City. The General Plan includes the following elements: Land Use, Economic Development, Transportation and Infrastructure, Housing, Safety, Noise, Open Space and Conservation, Parks, Recreation and Human Services, and Air Quality.
- Carson General Plan Environmental Impact Report (July 11, 2003). The *Carson General Plan EIR* (General Plan EIR) evaluates the impacts associated with implementation of General Plan. The General Plan EIR evaluates potential environmental impacts and identifies mitigation measures to reduce or avoid possible environmental damage. Mitigation measures were identified for Geologic and Seismic Hazards, Hydrology and Drainage, Public Health and Safety, and Cultural Resources. With the application of feasible mitigation measures, some impacts could not be reduced to less-than-significant levels. Significant and unavoidable impacts were identified for transportation, air quality, noise, hydrology, school facilities, and public health and safety. The General Plan EIR was recirculated to provide additional information regarding potential impacts associated with the revised Land Use Plan of the proposed General Plan. This *Carson Recirculated General Plan EIR* (Recirculated General Plan EIR) was incorporated with the original General Plan EIR and the responses to comments on both the General Plan EIR and the Recirculated General Plan EIR to comprise the Final General Plan EIR.
- City of Carson Municipal Code (current though Ordinance 14-1548, passed February 3, 2015). The *Carson Municipal Code* (Municipal Code) provides regulations for government administrative operations, construction, development, infrastructure, public safety, and business operations within the City. The Zoning Ordinance (Article IX of the Municipal Code) is intended to serve the public health, safety, comfort, convenience and general welfare by establishing land use districts designed to obtain the physical, environmental, economic and social advantages resulting from planned use of land in accordance with the



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General Plan. The Zoning Ordinance provides a set of regulations which control the land uses, the density of population, the uses and locations of structures, the height of buildings and structures, the ground coverage and open spaces about structures, the appearance of certain uses and structures, the areas and dimensions of sites, the location, size and illumination of signs and displays, requirements for off-street parking and off-street loading facilities, provisions for street dedications and improvements, standards for water efficient landscaping and procedures for administering and amending such regulations and requirements.



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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SETTING

PROJECT LOCATION

The 1.22-acre project site is located within the southern portion of the City of Carson (City), south of Interstate 405 (I-405), and east of Interstate 110 (I-110) in Los Angeles County, California; refer to [Exhibit 2-1, Regional Vicinity](#). The site is located at Assessor's Parcel Numbers (APNs) 7406-002-039 and 7406-013-016, to the southwest of East Sepulveda Boulevard and Panama Avenue and 200 feet east of the East Sepulveda Boulevard and Marbella Avenue intersection; refer to [Exhibit 2-2, Site Vicinity](#).

EXISTING CONDITIONS

The project site has been previously disturbed and is relatively flat with an elevation of approximately 40 feet above mean sea level (MSL). The site is currently vacant with minor vegetation and open dirt areas and no structures present on-site. The site is bounded by East Sepulveda Boulevard to the north, a vacant lot and commercial businesses to the east, an alleyway and single-family residences to the south and a parking lot and a restaurant building to the west. Chain link fence and block walls surround the perimeter of the site. [Table 2-1, Surrounding Land Uses](#), depicts the adjacent development.

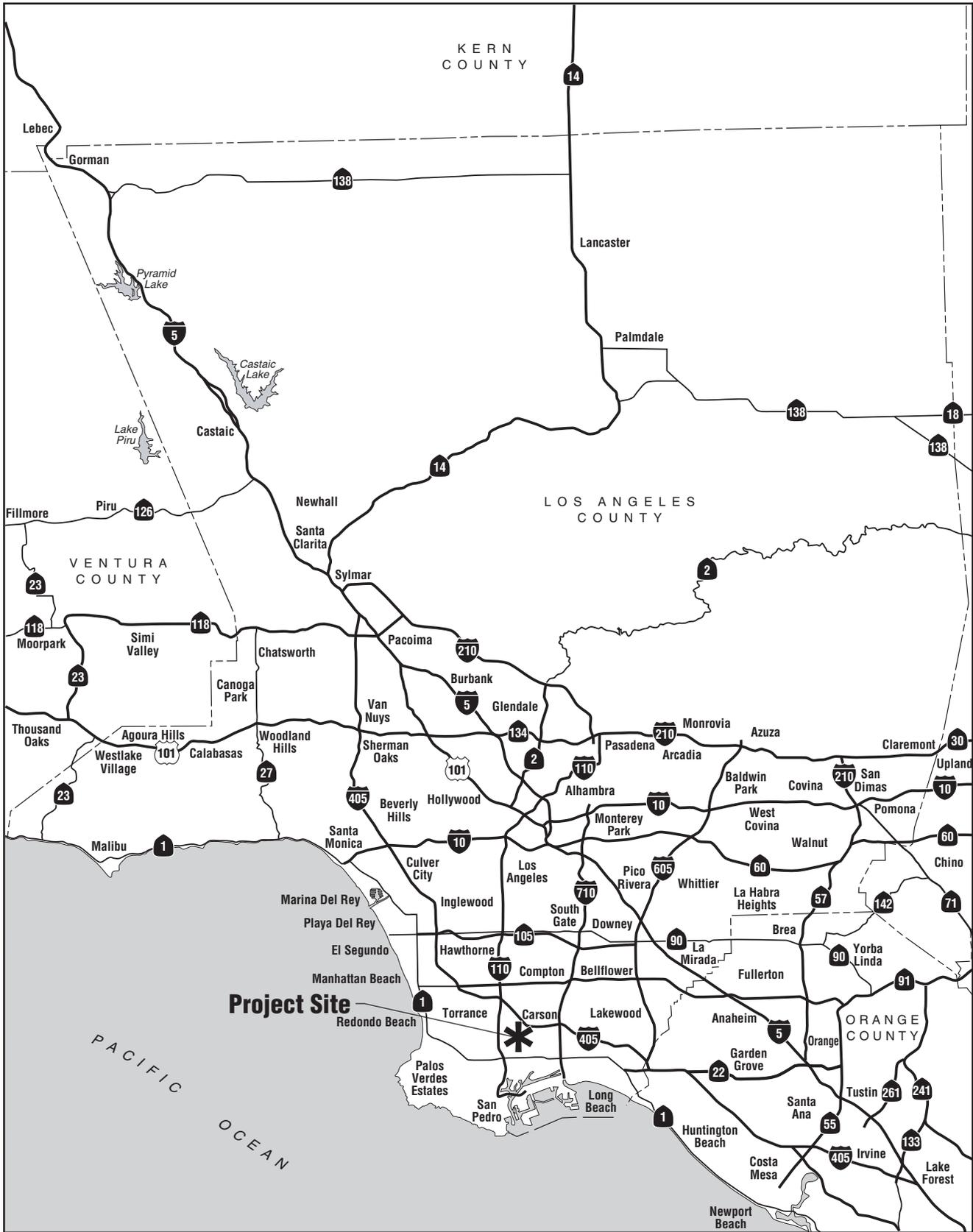
**Table 2-1
Surrounding Land Uses**

Direction	General Plan Designation	Zoning	Existing Land Use
North	Low Density	Residential, Single-Family	East Sepulveda Boulevard, beyond which are Single-Family Homes
East	Mixed Use - Residential	Mixed Use – Sepulveda Blvd	Commercial Use
South	Low Density	Residential, Single-Family	Single-Family Homes
West	General Commercial	Commercial, General	Commercial/Parking

1. Source: City of Carson, *Carson General Plan Land Use Map*, adopted December 18, 2007, updated September 30, 2008; and City of Carson *Zoning Map*, revised 2011.

EXISTING ZONING AND GENERAL PLAN

The *City of Carson General Plan Land Use Map* designates the project site as Mixed Use – Residential. The existing zoning is Mixed Use – Sepulveda Boulevard.



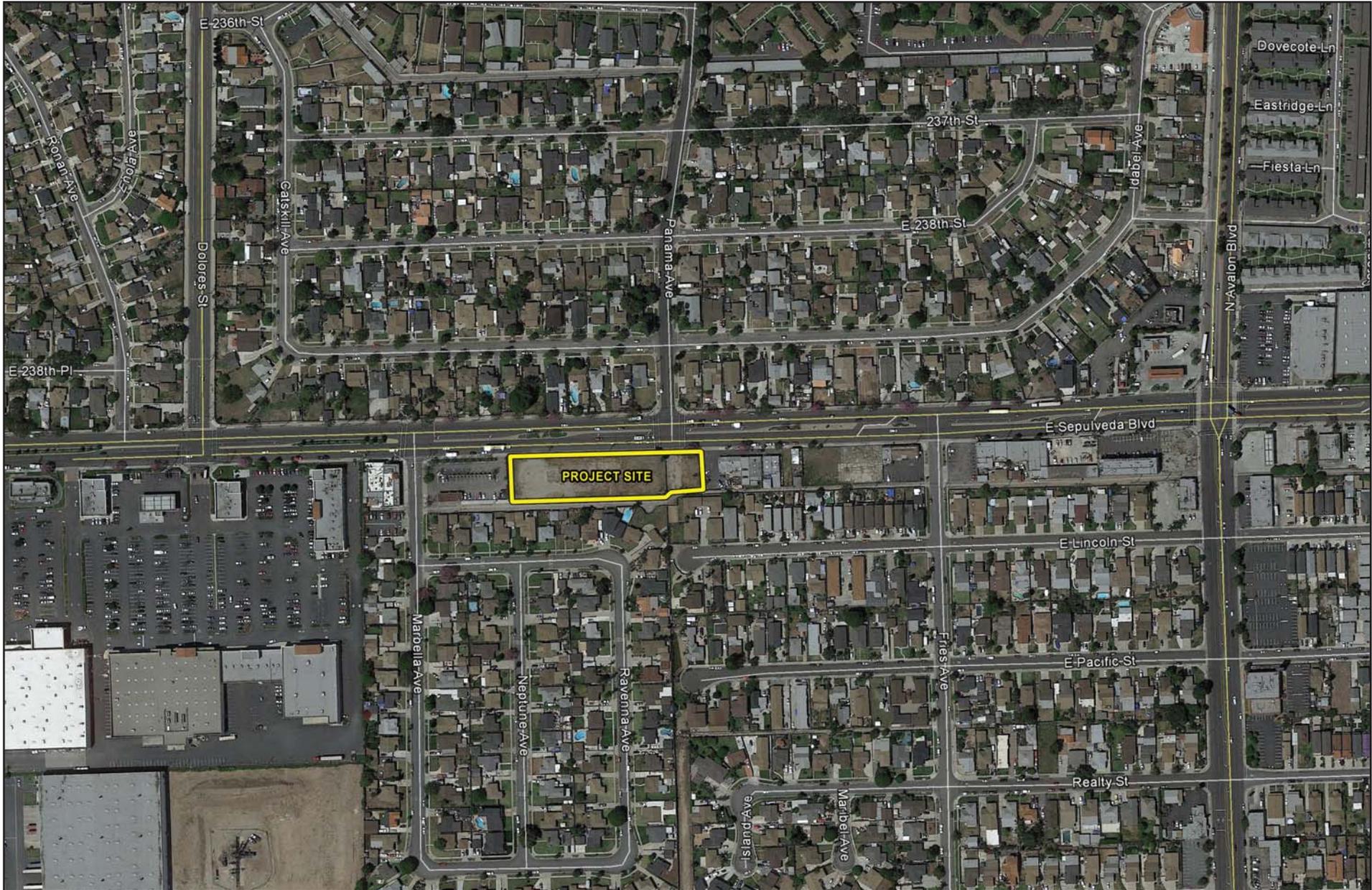
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Regional Vicinity

Exhibit 2-1



Source: Google Earth, 2015.

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INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Site Vicinity

Exhibit 2-2



2.2 PROPOSED PROJECT

The proposed project involves the construction of a 95,900 square-foot affordable senior residential/commercial mixed use development; refer to Table 2-2, Proposed Project. The project proposes the development of 44,315 square feet of residential units, 3,000 square feet of commercial retail, a 27,845 square foot parking garage, and 20,740 square feet of open space.

As depicted in Exhibit 2-3, Site Plan, the project would be comprised of a total of 65 senior housing units, consisting of 58 one-bedroom units, and 7 two-bedroom units. The proposed senior housing units are variable in dimension by plan type, with a minimum density of 54 dwelling units per acre.¹ The commercial retail uses would encompass approximately 3,000 square feet and the parking garage would include 67 parking spaces. The project would also feature approximately 15,150 square feet of common areas that would include a community space (a community room, community gardens, outdoor seating and theater area), podium gardens, and park area, and approximately 5,590 square feet of private open space.

**Table 2-2
Proposed Project**

Use	Number of Dwelling Units	Square Feet
Residential		
One Bedroom	58	44,315
Two Bedroom	7	
<i>Total Residential</i>	65	44,315
Commercial		
Retail		3,000
<i>Total Commercial Area</i>		3,000
Open Space		
Community Space (Community Room, Community Gardens and Outdoor Seating/Theatre)		4,550
Podium Gardens		5,600
Park		5,000
Private Open Space ¹		5,590
<i>Total Open Space</i>		20,740
Parking		
Garage ²		27,845
<i>Total Parking</i>		27,845
TOTAL	65	95,900
Notes:		
1. The Specific Plan would provide for a reduction in private open space compared to the standards in Section 9138.18 of the Municipal Code.		
2. The parking garage consists of 52 residential parking spaces, 15 commercial parking spaces, 5 motorcycle parking spaces, and 8 bicycle parking spaces. Per Senate Bill (SB) 1818, the proposed project would be granted an incentive or concession in the form of a reduction in site development standards in the ratio of residential vehicular parking spaces that would not exceed the following parking ratios outlined in Section 65915(p). Therefore, the reduction in residential parking spaces of 52 parking spaces would not exceed the maximum allowed under SB 1818 of 72 parking spaces.		
Source: Withee Malcolm Architects, LLP, <i>Typical Level Plan and Ground Level Plan</i> , February 2, 2015.		

¹ Per the Municipal Code, maximum allowable density for affordable or senior use in the Mixed Use-Sepulveda Boulevard is 33 dwelling units per acre (du/acre). Per the Specific Plan, there is an increase in allowable density to 54 du/acre.



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The development would require a General Plan Amendment from Mixed Use – Residential to Urban Residential and a Zone Change from Mixed Use – Sepulveda Boulevard to Sepulveda and Panama Specific Plan to support the development of the *Sepulveda and Panama Specific Plan*. As illustrated in Exhibit 2-4, Proposed North and South Elevations, the project would consist of a four-story building with the first floor including ground floor commercial retail uses and one parking garage and the remaining floors would be occupied by the senior housing units. The second floor features the podium gardens and community space. The project would also include a small park comprised of planting plots, community gardens, and open space areas located on the eastern portion of the site, adjacent to the building. Refer also to Exhibit 2-5, Proposed Building Cross-Sections 1 and 2, and Exhibit 2-6, Proposed Building Cross-Sections 3 and 4. The project would be designed with commercial building elements including light gray metal roofing, bronze finish aluminum storefronts, pre-cast stone finish, metal canopies, metal awnings, and a wood trellis and residential building materials such as French doors, vinyl windows, railing, wrought iron metal grilles, foam trim, and stucco finish.

CIRCULATION AND PARKING

The project would provide a parking garage consisting of 67 parking spaces (52 residential and 15 commercial spaces), 5 motorcycle parking spaces, and 8 bicycle parking spaces. A roll up gate and maneuvering area is located on the eastern portion of the parking garage. Vehicular access for the commercial retail and residential uses would be provided from Sepulveda Boulevard.

THE SEPULVEDA AND PANAMA SPECIFIC PLAN

The *Sepulveda and Panama Specific Plan* (Specific Plan) has been created as a regulatory tool to guide the development of the proposed project. The Specific Plan provides the elements, character, location, and method of implementation for the proposed project. The *Specific Plan* sets forth the permitted uses, densities, floor area ratio (FAR), building height, parking requirements, setbacks, streetscape enhancements, usable open space, signage, and design guidelines for the proposed project. The proposed project would comply with the specifications of the Specific Plan.

LAND USE ENTITLEMENTS

General Plan

As noted above, the project site's existing General Plan Land Use Designation is Mixed Use – Residential. To ensure consistency between the proposed Specific Plan and the City of Carson General Plan, the General Plan Land Use Map would be updated to re-designate the entire site as "Urban Residential". In addition, the General Plan text would be amended concurrent with the adoption of the *Sepulveda and Panama Specific Plan*.

Zone Change

The Carson Zoning Map would be amended by ordinance concurrent with adoption of the *Sepulveda and Panama Specific Plan* to ensure consistency. A "Sepulveda and Panama Specific Plan" zone would replace the site's existing zoning. Where the Carson Zoning Code regulations and/or development standards are inconsistent with the Specific Plan, the Specific Plan standards and regulations would prevail. However, any issue not specifically addressed in the Specific Plan shall be subject to the general Zoning Code regulations and development standards.



PROJECT PHASING AND CONSTRUCTION

The project is proposed to be constructed in a single phase, with construction anticipated to commence in January 2016 and be complete in June 2017.

2.3 DISCRETIONARY ACTIONS

The City of Carson is the Lead Agency under CEQA and has discretionary authority over the proposed project. The project would be subject to various city permits and approvals, including, but not limited to:

- Certification of a Final Initial Study/Mitigated Negative Declaration;
- Adoption of the *Sepulveda and Panama Specific Plan*;
- Amendment to the General Plan Land Use Map to re-designate the Site from "Mixed Use – Residential" to "Urban Residential";
- Amendment to the General Plan text on page LU-5 under the heading "Specific Plans" to include the *Sepulveda and Panama Specific Plan*;
- Amendment to the City's Zoning Map to establish a *Sepulveda and Panama Specific Plan* zoning designation across the entire site;
- Amendment to the City's Zoning Code Section 9138.17.B to include a reference to the *Sepulveda and Panama Specific Plan* zoning regulations and development standards;
- Sign Program approval; and
- Vesting Parcel Map Approval (pending submittal).

The project would also require administrative approvals from the City for issuance of grading, building, and occupancy permits as well as connection permits from utility providers.



1. SEPULVEDA (NORTH) ELEVATION

MATERIAL LEGEND

- | | |
|---------------------------------------|-----------------------------|
| ① METAL ROOFING - LIGHT GRAY | ⑦ PRE-CAST STONE |
| ② DOUGLAS FIR FRENCH DOOR | ⑧ WOOD TRELLIS |
| ③ RECESSED OPERABLE VINYL WINDOW | ⑨ METAL AWNING |
| ④ ALUMINUM STOREFRONT - BRONZE FINISH | ⑩ WROUGHT IRON METAL GRILLE |
| ⑤ TREX - RAILING | ⑪ FOAM TRIM |
| ⑥ STUCCO - 20/30 FLOAT FINISH | ⑫ METAL CANOPY |

Source: Withee Malcolm Architects, LLP; February 2, 2015.

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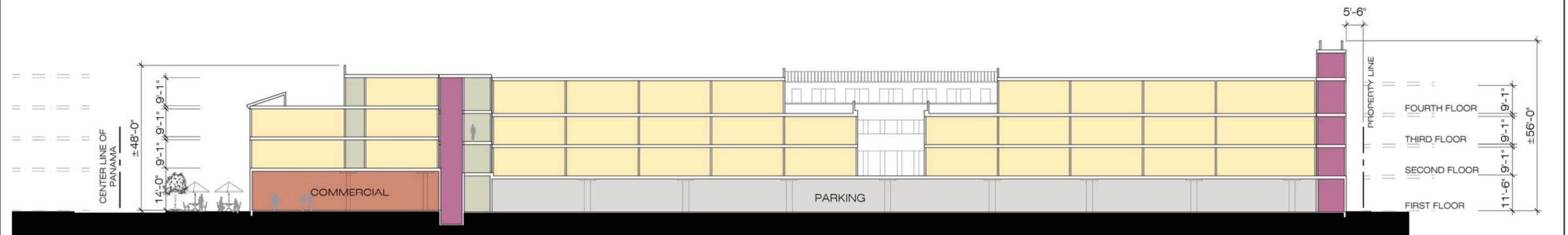


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BUILDING SECTION 2



BUILDING SECTION 1

LEGEND

- PARKING
- COMMERCIAL / COMMUNITY ROOM
- VERTICAL CIRCULATION
- RESIDENTIAL LOBBY
- RESIDENTIAL UNITS

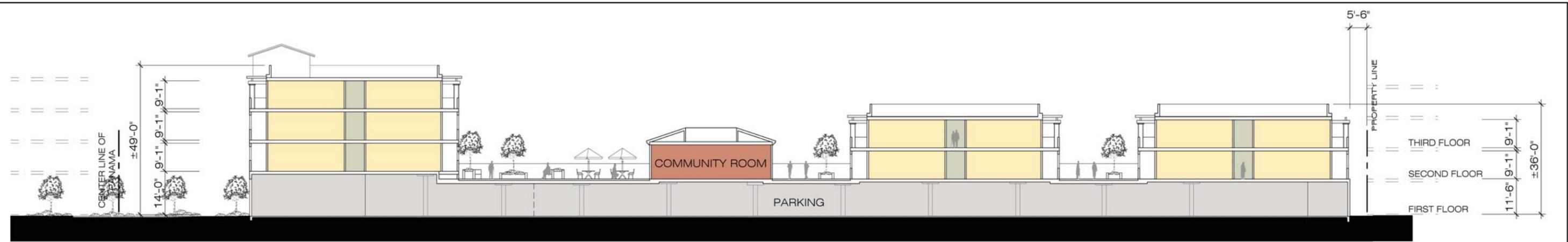
Source: Withee Malcolm Architects, LLP; February 2, 2015.

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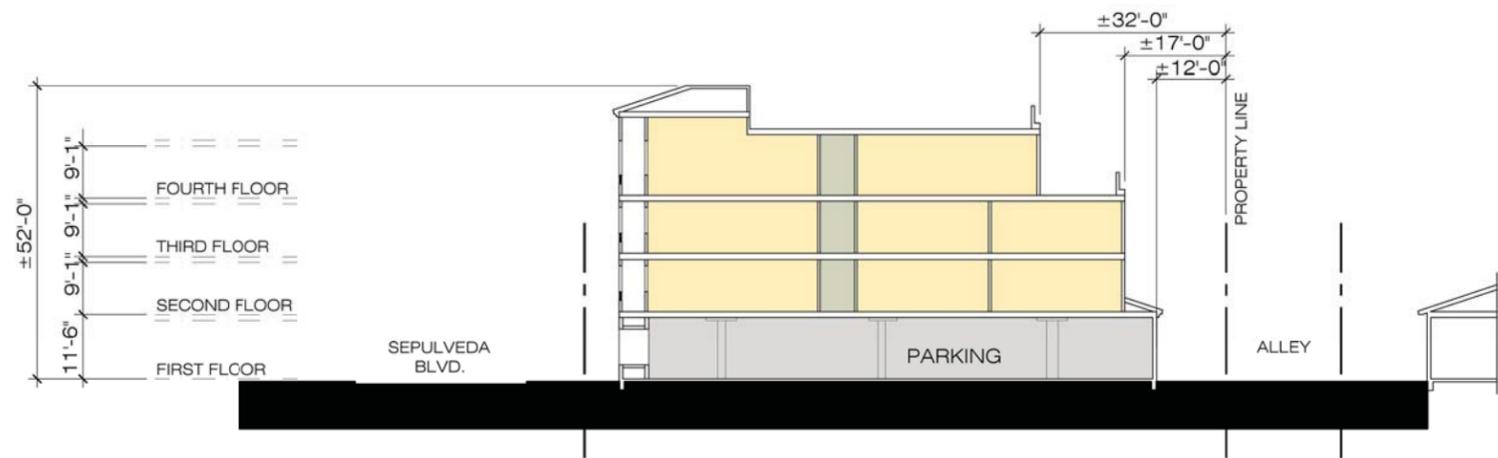


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BUILDING SECTION 4



BUILDING SECTION 3

LEGEND

- PARKING
- COMMERCIAL / COMMUNITY ROOM
- VERTICAL CIRCULATION
- RESIDENTIAL LOBBY
- RESIDENTIAL UNITS

Source: Withee Malcolm Architects, LLP; February 2, 2015.

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3.0 INITIAL STUDY CHECKLIST

3.1 BACKGROUND

1.	Project Title: Sepulveda and Panama Mixed Use Project
2.	Lead Agency Name and Address: City of Carson 701 East Carson Street Carson, California 90745
3.	Contact Person and Phone Number: Mr. Richard Rojas, AICP Associate Planner 310.952.1761
4.	Project Location: East Sepulveda Boulevard and Panama Avenue within the City of Carson
5.	Project Sponsor's Name and Address: Affirmed Housing Group 13520 Evening Creek Drive N. Suite 160 San Diego, California 92128
6.	General Plan Designation: Mixed Use - Residential
7.	Zoning: Mixed Use – Sepulveda Boulevard
8.	Description of the Project: The project proposes a mixed-use development with 65 senior residential apartment units and 3,000 square feet of commercial space on a 1.22-acre site located to the southwest of East Sepulveda Boulevard and Panama Avenue and 200 feet east of the East Sepulveda Boulevard and Marbella Avenue intersection. The proposed senior housing units would consist of 58 one-bedroom units, and 7 two-bedroom units. The commercial retail uses would encompass approximately 3,000 square feet and the parking garage would include 67 parking spaces. The project would also feature approximately 15,150 square feet of common areas that would include a community space (a community room, community gardens, outdoor seating, and theater area), podium gardens, and park area, and approximately 5,590 square feet of private open space. Additional details regarding the project are provided in Section 2.2, Proposed Project .
9.	Surrounding Land Uses and Setting: The project site is within a developed area of the City, surrounded by the following uses: <ul style="list-style-type: none">• <u>North:</u> Single family residential uses are located to the north across Sepulveda Boulevard.• <u>East:</u> Commercial uses are located adjacent to the eastern site boundary.• <u>South:</u> Single family residential uses are located across the alley to the south.• <u>West:</u> The parcel to the west is zoned General Commercial. Parking uses currently exist at this location.
10.	Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement). Refer to Section 2.3, Discretionary Actions



3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Less Than Significant Impact with Mitigation Incorporated,” as indicated by the checklist on the following pages.

✓	Aesthetics		Land Use and Planning
	Agriculture and Forestry Resources		Mineral Resources
✓	Air Quality	✓	Noise
	Biological Resources		Population and Housing
✓	Cultural Resources		Public Services
✓	Geology and Soils		Recreation
	Greenhouse Gas Emissions	✓	Transportation/Traffic
	Hazards & Hazardous Materials		Utilities & Service Systems
✓	Hydrology & Water Quality	✓	Mandatory Findings of Significance

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- | | |
|--|---|
| <ul style="list-style-type: none"> • Aesthetics • Agriculture and Forestry Resources • Air Quality • Biological Resources • Cultural Resources • Geology and Soils • Greenhouse Gas Emissions • Hazards and Hazardous Materials • Hydrology and Water Quality | <ul style="list-style-type: none"> • Land Use and Planning • Mineral Resources • Noise • Population and Housing • Public Services • Recreation • Transportation/Traffic • Utilities and Service Systems |
|--|---|

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the *CEQA Guidelines* and used by the City of Carson in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study’s preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the development’s impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- No Impact. The development will not have any measurable environmental impact on the environment.
- Less Than Significant Impact. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.



- Less Than Significant Impact With Mitigation Incorporated. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- Potentially Significant Impact. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential impacts are anticipated to be significant, mitigation measures will be required, so that impacts may be avoided or reduced to a less than significant level.



SEPULVEDA AND PANAMA MIXED USE PROJECT
Public Review Draft Initial Study/Mitigated Negative Declaration

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4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential project impacts as identified in the Initial Study/Environmental Checklist. Explanations are provided for each item.

4.1 AESTHETICS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?				✓
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		✓		
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			✓	

a) *Have a substantial adverse effect on a scenic vista?*

No Impact. The *Carson General Plan* (General Plan) does not designate any scenic resources within the City of Carson. In addition, the project site is relatively flat and currently comprised of vacant disturbed land; as such the site does contain any scenic vistas. Development of the project site with the proposed mixed-use development would be consistent with the developed urban nature of the land uses in the surrounding area. Therefore, the proposed project would not have a substantial adverse effect on a scenic vista.

Mitigation Measures: No mitigation is required.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. There are no officially-designated State scenic highways within proximity to the project site.¹ In addition, the General Plan does not designate any scenic highways, roadways, or corridors in the City. The nearest State scenic highway is California State Route 1 (SR-1) (designated as eligible for listing), which is located approximately 10 miles southeast of the project site. Therefore, the proposed project would not substantially damage scenic resources within a State scenic highway. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

¹ California Scenic Highway Mapping System, http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm, accessed March 17, 2015.



c) ***Substantially degrade the existing visual character or quality of the site and its surroundings?***

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Impacts

Short-term construction activities associated with the proposed project would temporarily influence the character/quality of the project site and surrounding area, as viewed from the residential and commercial uses surrounding the project site, as well as motorists traveling along Sepulveda Boulevard and Panama Avenue. During project construction, the various construction activities would intermittently alter the character of the project site and its surroundings. Graded surfaces, construction debris, construction equipment, and truck traffic would be visible. Soil would also be stockpiled and equipment for grading activities would be staged at various locations throughout the project site. Construction-related visual impacts would not be constant over the approximately 18-month construction period. Most heavy grading equipment would only be on-site for demolition and rough grading construction activities. The building phase would involve less heavy equipment. Upon completion of construction, these short-term visual impacts would cease. With implementation of Mitigation Measure AES-1 pertaining to equipment staging areas and the use of screening, impacts to sensitive viewers in the area (e.g., public street users and residents) would be reduced to less than significant levels.

Long-Term Impacts

The project site is located within an urbanized area of the City and is currently comprised of vacant disturbed land. There are currently no structures on the project site, and nominal vegetation is provided. A chain link fence and block walls surround the perimeter of the site. The surrounding area primarily consists of a variety of commercial and residential uses, generally varying in height from one to two stories. Due to the topography of the project site and surrounding area, the project site is primarily visible from the surrounding commercial and residential uses, as well as from Sepulveda Boulevard and Panama Avenue.

Implementation of the project would alter the existing visual character of site and its surroundings, as the project proposes development on the project site that is currently vacant. The project involves the construction of a four-story, 95,900 square-foot mixed use development, including 65 affordable senior residential units (comprising approximately 44,315 square feet), 3,000 square feet of commercial retail, a 27,845 square foot parking garage, and 20,740 square feet of open space.

As shown in Exhibit 2-4, the project would be designed with commercial building elements including light gray metal roofing, bronze finish aluminum storefronts, pre-cast stone finish, metal canopies, metal awnings, and a wood trellis and residential building materials such as French doors, vinyl windows, railing, wrought iron metal grilles, foam trim, and stucco finish. The materials would be featured on all facades. All residential units would have 86 square-foot (on average) outdoor patios. Two open-air courtyard podium areas, and a community open space area with community garden and outdoor sitting area would be located on the second floor for on-site residents. These open space areas would not be visible from Sepulveda Boulevard. On the ground level, a community garden and flexible open space area, as well as an outdoor patio area (associated with the ground level commercial uses) would be provided near the eastern boundary of the project site. The proposed mixed use building would approximately 54 feet tall at its highest point (near the intersection of Sepulveda Boulevard and Panama Avenue).

Ornamental trees and landscaping would border the perimeter of the proposed mixed use building, and would be provided in all open space/outdoor patio areas on-site. The vehicular entrance and community garden/open space area in the eastern portion of the project site would also contain ornamental trees and landscaping. An array of ornamental trees and landscaping, as well as widened sidewalks along Sepulveda Boulevard would provide an enhanced walking experience for pedestrians.



Overall, the proposed mixed use building would result in an increase in visual hardscape and massing in the project area, as the project site is currently vacant. Proposed features that would reduce visible massing and hardscape as seen from public streets would include new landscaping buffers, ornamental trees, widened sidewalk areas, and open space and an outdoor patio area near the Sepulveda Boulevard and Panama Avenue intersection. The increased landscaping, outdoor dining, open space area, and varying building materials would allow for a human scale perspective along the public streets.

The project requires a General Plan Amendment from Mixed Use – Residential to Urban Residential, and a Zone Change from Mixed Use – Sepulveda Boulevard to Sepulveda and Panama Specific Plan to accommodate the development of the Sepulveda and Panama Specific Plan. Although the project proposes a General Plan Amendment, Zoning Map Amendment, and Zone Change for the proposed project, these proposed uses are similar to the existing Mixed Use – Residential designation for the site. The project would not hinder any sensitive views or scenic vistas, and would be required to comply with the Specific Plan design guidelines. Overall, the visual character and quality of the project site would be enhanced with improved landscaping, architecture, public space, and signage. Further, the project would be subject to the City's Development Review process. As part of the Development Review process, the project would be reviewed to ensure surrounding properties are protected from adverse effects associated with setbacks, heights of buildings, walls, landscaping, and lighting.

Implementation of the proposed project, upon compliance with City standards and regulations, would not degrade the character/quality of the project site compared to existing conditions. The existing site consists of vacant disturbed land and does not currently provide any aesthetic value to the City or project area. The proposed project would improve the overall visual character of the site and its surroundings, resulting in a character consistent with the intent of the Specific Plan, Zoning Code, and General Plan for the project site. Although views of the site would be altered when compared to the existing conditions, the project would be consistent with the urbanized character of the area. Impacts would be less than significant in this regard.

Mitigation Measures:

AES-1 Prior to the issuance of grading permits, the Chief Building Official shall confirm that the Final Development Plans and Grading Plans require construction equipment staging areas to use appropriate screening (i.e., temporary fencing with opaque material) to buffer views of construction equipment and material, when feasible.

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

Less Than Significant Impact.

Short-Term Impacts

Short-term light and glare impacts are anticipated to be minimal, since no nighttime construction would be required for project implementation. The project would comply with the *City of Carson Municipal Code* (Municipal Code) Section 4104(i) and 4101(j) for allowable construction hours, which are limited to between 7:00 a.m. and 6:00 p.m. on weekdays. In addition, Municipal Code Section 5502(c) of the Noise Control Ordinance requires that construction activities occurring for more than 21 days do not result in noise levels in exceedance of 70 dBA between the hours of 7:00 a.m. and 8:00 p.m. daily except for Sundays and legal holidays, and 60 dBA between the hours of 8:00 p.m. and 7:00 a.m. on these same days. Construction is not allowed on Sundays and City holidays. Therefore, short-term light and glare impacts would be less than significant.



Long-Term Impacts

The project site does not currently emit any source of light due its vacant disturbed nature. Lighting in the project vicinity is currently produced by the parking lot to the west, commercial businesses to the east, street lighting along East Sepulveda Boulevard, and the surrounding commercial and residential uses. Light is also currently being emitted by vehicles traveling along East Sepulveda Boulevard and Panama Avenue.

Light spill is typically defined as unwanted illumination from light fixtures on adjacent properties. Perceived glare is the unwanted and potentially objectionable result from looking directly into a light source of a luminaire. Sensitive uses (i.e., residential uses) could be impacted by light and glare from the project site, as the nearest sensitive uses (residential uses) are located directly to the southeast, south, and southwest; there are also residential uses located to the north of East Sepulveda Boulevard. The majority of new lighting being emitted from the project would be seen from ground level. Lighted signage from the proposed commercial/retail uses, security lighting, and landscape lighting on-site would be visible. New security lighting would occur within the parking structure and around the mixed-use building. The project would be required to comply with all lighting requirements included in the Municipal Code (i.e., Sections 9127.1, 9137.1, 9147.1, and 9157.1), which requires all exterior lighting to be directed away from all adjoining and nearby residential property. Compliance with the Municipal Code requirements would reduce potential impacts associated with project lighting to a less than significant level.

Vehicle headlights entering and exiting the proposed parking structure in the eastern portion of the site would also occur. Vehicle headlights emanating from ingress/egress on the project site would be visible to the residential uses to the southeast, south, and southwest. However, existing fencing along the residential uses to the southeast, south, and southwest, as well as landscaping on the project site would provide screening from vehicle headlights entering the project site. Further, there is existing nighttime lighting on the surrounding commercial properties, and streetlights along East Sepulveda Boulevard and other roadways that residential uses are currently exposed to. Thus, development of the proposed project is not expected to result in a significant increase in lighting conditions in the immediate vicinity of the project site.

Interior lighting associated with the residential component of the proposed project may be visible from surrounding uses. However, these lighting conditions would appear similar in character to the existing parking lot to the west, and commercial uses to the east. As such, residential lighting on the project site would not create a substantial source of light adversely affecting views in the area. Impacts would be less than significant in this regard.

Reflective materials and surfaces occur within the surrounding area. Potential reflective daytime glare, as viewed from motorists traveling along East Sepulveda Boulevard and Panama Avenue may result from the proposed mixed-use development. The glass surface's color, level of reflectivity, and transparency would be governed by the view angle and speed by which one passes the building, and external light levels and sun angles. However, this reflective glare would be similar in character to the existing resultant glare conditions from the surrounding structures building materials in the area (e.g., commercial uses to the east and west of the project site). Thus, resultant glare from the proposed structure would be less than significant in this regard, as it would be similar to the existing surrounding conditions.

Mitigation Measures: No mitigation is required.



4.2 AGRICULTURE AND FORESTRY RESOURCES

<i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The project site currently consists of vacant disturbed land. The project site is considered an infill location, and the surrounding area is completely developed with urban/suburban uses. No farmland exists within the site vicinity. Based on the *Los Angeles County Important Farmland 2010 Map* prepared by the California Department of Conservation, the project site is not located on land designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.¹ Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

¹ California Department of Conservation Farmland Mapping and Monitoring Program, *Los Angeles County Important Farmland 2010 Map*, published September 2011.



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

No Impact. As stated above, the project site is currently comprised of vacant disturbed land, and the surrounding area is completely developed with urban/suburban uses. The project site is zoned Mixed Use – Sepulveda Boulevard (MU-SB) by the City. The MU-SB zone is intended to create a retail, office and residential district along the south side of Sepulveda Boulevard. Thus, the proposed project would not affect any land zoned for agricultural use and would not conflict with a Williamson Act contract. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. The project site is comprised of vacant disturbed land. The project site is zoned MU-SB and would not conflict with any areas zoned for forest or timberland. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to Response 4.2(c), above.

Mitigation Measures: No mitigation is required.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As stated above in Responses 4.2(a) through 4.2(d), the project site is developed and is void of agricultural or forest resources. Thus, there would be no potential for the conversion of these resources and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



4.3 AIR QUALITY

<i>Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d. Expose sensitive receptors to substantial pollutant concentrations?		✓		
e. Create objectionable odors affecting a substantial number of people?			✓	

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The project is located within the South Coast Air Basin (Basin), which is governed by the South Coast Air Quality Management District (SCAQMD). Consistency with the SCAQMD 2012 *Air Quality Management Plan for the South Coast Air Basin* (2012 AQMP) means that a project is consistent with the goals, objectives, and assumptions set forth in the 2012 AQMP that are designed to achieve Federal and State air quality standards. According to the SCAQMD CEQA Air Quality Handbook, in order to determine consistency with the 2012 AQMP, two main criteria must be addressed:

Criterion 1:

With respect to the first criterion, SCAQMD methodologies require that an air quality analysis for a project include forecasts of project emissions in relation to contributing to air quality violations and delay of attainment.

a) Would the project result in an increase in the frequency or severity of existing air quality violations?

Since the consistency criteria identified under the first criterion pertains to pollutant concentrations, rather than to total regional emissions, an analysis of the project's pollutant emissions relative to localized pollutant concentrations is used as the basis for evaluating project consistency. As discussed in Response 4.3(d) below, localized concentrations of carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}) would be less than significant. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations. Because reactive organic gases (ROGs) are not a criteria pollutant, there is no ambient standard or localized threshold for ROGs. Due to the role ROG plays in ozone formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established.



b) *Would the project cause or contribute to new air quality violations?*

As discussed in Response 4.3(b), the proposed project would result in emissions that are below the SCAQMD thresholds. Therefore, the project would not have the potential to cause or affect a violation of the ambient air quality standards.

c) *Would the project delay timely attainment of air quality standards or the interim emissions reductions specified in the AQMP?*

The proposed project would result in less than significant impacts with regard to localized concentrations during project construction and operations. As such, the project would not delay the timely attainment of air quality standards or 2012 AQMP emissions reductions.

Criterion 2:

With respect to the second criterion for determining consistency with SCAQMD and Southern California Association of Governments (SCAG) air quality policies, it is important to recognize that air quality planning within the Basin focuses on attainment of ambient air quality standards at the earliest feasible date. Projections for achieving air quality goals are based on assumptions regarding population, housing, and growth trends. Thus, the SCAQMD's second criterion for determining project consistency focuses on whether or not the proposed project exceeds the assumptions utilized in preparing the forecasts presented in the 2012 AQMP. Determining whether or not a project exceeds the assumptions reflected in the 2012 AQMP involves the evaluation of the three criteria outlined below. The following discussion provides an analysis of each of these criteria.

a) *Would the project be consistent with the population, housing, and employment growth projections utilized in the preparation of the AQMP?*

In the case of the 2012 AQMP, three sources of data form the basis for the projections of air pollutant emissions: the *Carson General Plan* (General Plan), SCAG's *Growth Management* Chapter of the *Regional Comprehensive Plan* (RCP), and SCAG's *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy* (RTP/SCS). The RTP/SCS also provides socioeconomic forecast projections of regional population growth. The project site is designated Mixed Use – Residential by the General Plan. The project proposes a residential/commercial mixed-use development. According to the General Plan, the Mixed Use – Residential designation provides opportunities for mixtures of commercial, office, business park/limited industrial, and/or residential uses in the same building, on the same parcel, or within the same area. The proposed project is considered a residential/commercial development. The project requires a General Plan Amendment from Mixed Use – Residential to Urban Residential, and a Zone Change from Mixed Use – Sepulveda Boulevard to Sepulveda and Panama Specific Plan to accommodate the development of the Sepulveda and Panama Specific Plan. Upon approval of the proposed General Plan and zone change amendments, the proposed project would be consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the RCP/SCS. Additionally, as the SCAQMD has incorporated these same projections into the 2012 AQMP, it can be concluded that the proposed project would be consistent with the projections.

b) *Would the project implement all feasible air quality mitigation measures?*

The proposed project would result in less than significant air quality impacts. Compliance with all feasible emission reduction measures identified by the SCAQMD would be required as identified in Response 4.3(b) and 4.3(c). As such, the proposed project meets this AQMP consistency criterion.



c) *Would the project be consistent with the land use planning strategies set forth in the AQMP?*

The proposed project would serve to implement various City and SCAG policies and would be considered an infill development. The project site is located on the south side of Sepulveda Boulevard, between Main Street and Avalon Boulevard, in the vicinity of a mix of commercial, office, residential, and civic uses.

In conclusion, the determination of 2012 AQMP consistency is primarily concerned with the long-term influence of a project on air quality in the Basin. The proposed project would not result in a long-term impact on the region's ability to meet State and Federal air quality standards. Also, the proposed project would be consistent with the goals and policies of the AQMP for control of fugitive dust. As discussed above, the proposed project's long-term influence would also be consistent with the SCAQMD and SCAG's goals and policies and is, therefore, considered consistent with the 2012 AQMP.

Mitigation Measures: No mitigation is required.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Construction Emissions

The project involves construction activities associated with sit preparation, grading, paving, construction, and architectural coating applications. Approximately 5,000 cubic yards of soil would be utilized for cut-and-fill at the project site during the grading phase. Exhaust emission factors for typical diesel-powered heavy equipment are based on the California Emissions Estimator Model (CalEEMod) program defaults. Variables factored into estimating the total construction emissions include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on- or off-site. The analysis of daily construction emissions has been prepared utilizing CalEEMod. Refer to [Appendix A, Air Quality/Greenhouse Gas Data](#), for the CalEEMod outputs and results. [Table 4.3-1, Construction Related Emissions](#), presents the anticipated daily short-term construction emissions.

Fugitive Dust Emissions

Construction activities are a source of fugitive dust emissions that may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the project area. Fugitive dust emissions are associated with land clearing, ground excavation, cut-and-fill, and truck travel on unpaved roadways (including demolition as well as construction activities). Fugitive dust emissions vary substantially from day to day, depending on the level of activity, specific operations, and weather conditions. Fugitive dust from grading, excavation and construction is expected to be short-term and would cease upon project completion. Additionally, most of this material is inert silicates, rather than the complex organic particulates released from combustion sources, which are more harmful to health.



Table 4.3-1
Construction Related Emissions

Emissions Source	Pollutant (pounds/day) ¹					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 1 (2016)						
Unmitigated Emissions	4.69	43.73	30.11	0.05	10.49	6.23
Mitigated Emissions ²	4.69	43.73	30.11	0.05	3.17	2.45
SCAQMD Thresholds	75	100	550	150	150	55
Is Threshold Exceeded After Mitigation?	No	No	No	No	No	No
Year 2 (2017)						
Unmitigated Emissions	53.59	37.00	27.88	0.05	3.07	2.29
Mitigated Emissions ²	53.59	37.00	27.88	0.05	2.88	2.24
SCAQMD Thresholds	75	100	550	150	150	55
Is Threshold Exceeded After Mitigation?	No	No	No	No	No	No
Notes:						
1. Emissions were calculated using CalEEMod, as recommended by the SCAQMD.						
2. As depicted in this table, the recommended mitigation measures would be required to ensure compliance with SCAQMD Rules and Regulations, which would be verified and enforced through the City's development review process. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod and as typically required by the SCAQMD. The mitigation includes the following: properly maintain mobile and other construction equipment; replace ground cover in disturbed areas quickly; water exposed surfaces three times daily; cover stock piles with tarps; water all haul roads twice daily; and limit speeds on unpaved roads to 15 miles per hour.						
3. Refer to Appendix A, Air Quality/Greenhouse Gas Data , for assumptions used in this analysis.						

Dust (larger than 10 microns) generated by such activities usually becomes more of a local nuisance than a serious health problem. Of particular health concern is the amount of PM₁₀ generated as a part of fugitive dust emissions. PM₁₀ poses a serious health hazard alone or in combination with other pollutants. PM_{2.5} is mostly produced by mechanical processes. These include automobile tire wear, industrial processes such as cutting and grinding, and re-suspension of particles from the ground or road surfaces by wind and human activities such as construction or agriculture. PM_{2.5} is mostly derived from combustion sources, such as automobiles, trucks, and other vehicle exhaust, as well as from stationary sources. These particles are either directly emitted or are formed in the atmosphere from the combustion of gases such as NO_x and sulfur oxides (SO_x) combining with ammonia. PM_{2.5} components from material in the earth's crust, such as dust, are also present, with the amount varying in different locations.

Mitigation Measure AQ-1 would implement dust control techniques (i.e., daily watering), limitations on construction hours, and adherence to SCAQMD Rules 402 and 403 (which require watering of inactive and perimeter areas, track out requirements, etc.), to reduce PM₁₀ and PM_{2.5} concentrations. It should be noted that these reductions were applied in CalEEMod. The recommended mitigation measures would be required to ensure compliance with SCAQMD Rules and Regulations, which would be verified and enforced through the City's development review process. As depicted in [Table 4.3-1](#), total PM₁₀ and PM_{2.5} emissions would not exceed the SCAQMD thresholds during construction. Thus, construction air quality impacts would be less than significant.

Construction Equipment and Worker Vehicle Exhaust

Exhaust emissions from construction activities include emissions associated with the transport of machinery and supplies to and from the project site, employee commutes to the project site, emissions produced on-site as the



equipment is used, and emissions from trucks transporting materials to/from the site. As presented in Table 4.3-1, construction equipment and worker vehicle exhaust emissions would not exceed the established SCAQMD threshold for all criteria pollutants. Therefore, impacts in this regard would be less than significant.

ROG Emissions

In addition to gaseous and particulate emissions, the application of asphalt and surface coatings creates ROG emissions, which are O₃ precursors. In accordance with the methodology prescribed by the SCAQMD, the ROG emissions associated with paving and architectural coating have been quantified with the CalEEMod model. As required by SCAQMD Regulation XI, Rule 1113 – *Architectural Coating*, all architectural coatings for the proposed structures would comply with specifications on painting practices as well as regulation on the ROG content of paint.¹ ROG emissions associated with the proposed project would be less than significant; refer to Table 4.3-1.

Naturally Occurring Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals that are a human health hazard when airborne. The most common type of asbestos is chrysotile, but other types such as tremolite and actinolite are also found in California. Asbestos is classified as a known human carcinogen by State, Federal, and international agencies and was identified as a toxic air contaminant by the California Air Resources Board in 1986.

Asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. All of these activities may have the effect of releasing potentially harmful asbestos into the air. Natural weathering and erosion processes can act on asbestos bearing rock and make it easier for asbestos fibers to become airborne if such rock is disturbed. According to the Department of Conservation Division of Mines and Geology, *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos Report* (August 2000), serpentinite and ultramafic rocks are not known to occur within the project area. Thus, there would be no impact in this regard.

Long-Term (Operational) Emissions

Long-term air quality impacts would consist of mobile source emissions generated from project-related traffic and from stationary source emissions. Emissions associated with each of these sources were calculated and are discussed below.

Mobile Source

Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, SO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern (NO_x and ROG react with sunlight to form O₃ [photochemical smog], and wind currents readily transport SO_x, PM₁₀, and PM_{2.5}). However, CO tends to be a localized pollutant, dispersing rapidly at the source.

Project-generated vehicle emissions have been estimated using CalEEMod. According to the *Traffic Impact Study*, the proposed project would generate approximately 357 total daily trips. Table 4.3-2, Long-Term Air Emissions, presents the anticipated mobile source emissions.

¹ South Coast Air Quality Management District, *Rule 1113. Architectural Coatings*, <http://www.aqmd.gov/docs/default-source/rule-book/reg-xi/r1113.pdf>, accessed March 25, 2015.



Table 4.3-2
Long-Term Air Emissions

Emissions Source	Pollutant (pounds/day) ¹					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	3.65	0.06	5.42	0.00	0.03	0.03
Energy	0.03	0.28	0.12	0.00	0.02	0.02
Mobile	1.21	3.27	13.41	0.03	2.21	0.62
Total Proposed Mitigated Emissions²	4.89	3.61	18.95	0.03	2.26	0.67
SCAQMD Threshold	55	55	550	150	150	55
Is Threshold Exceeded?	No	No	No	No	No	No

Notes:

1. Based on CalEEMod results, worst-case seasonal emissions for area and mobile emissions have been modeled.
2. The numbers may be slightly off due to rounding.
3. Refer to Appendix A, *Air Quality/Greenhouse Gas Data*, for assumptions used in this analysis.

Area Source Emissions

Area source emissions would be generated due to an increased demand for consumer products, additional landscaping, and architectural coating associated with the development of the proposed project; refer to Table 4.3-2. The proposed project would not include wood burning devices per SCAQMD Rule 445 (Wood Burning Devices).

Energy Source Emissions

Energy source emissions would be generated as a result of electricity and natural gas usage associated with the proposed project; refer to Table 4.3-2. The primary use of electricity and natural gas by the project would be for space heating and cooling, water heating, ventilation, lighting, appliances, and electronics.

Total Operational Emissions

Modeled area source emissions include the natural gas burning fireplaces and exclude the use of wood burning fireplaces per SCAQMD Rule 445. Additionally, mobile source emissions would be reduced as the project would increase diversity (the project includes residential and retail uses) and density, and since the project site is located in close proximity of Torrance Bus Routes 7 and 3 (located along Sepulveda Boulevard and Main Street) and Metro Bus Route 246 (located along Avalon Boulevard). Additionally, the project would improve the pedestrian network on-site and provide connections to the off-site network. These land use attributes that are inherent in the project's location and design were incorporated into the CalEEMod mitigation module. It is noted that although the CalEEMod results depict these emissions as "mitigated" emissions, they are considered Project Design Features.

As shown in Table 4.3-2, with implementation of the Project Design Features, the long-term operational emissions would not exceed established SCAQMD thresholds. Therefore, impacts in this regard would be less than significant.

Mitigation Measures:

- AQ-1 Prior to issuance of any Grading Permit, the City Engineer and the Chief Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating



a nuisance off-site. Implementation of the following measures would reduce short-term fugitive dust impacts on nearby sensitive receptors:

- All active portions of the construction site shall be watered every three hours during daily construction activities and when dust is observed migrating from the project site to prevent excessive amounts of dust;
- Pave or apply water every three hours during daily construction activities or apply non-toxic soil stabilizers on all unpaved access roads, parking areas, and staging areas. More frequent watering shall occur if dust is observed migrating from the site during site disturbance;
- Any on-site stockpiles of debris, dirt, or other dusty material shall be enclosed, covered, or watered twice daily, or non-toxic soil binders shall be applied;
- All grading and excavation operations shall be suspended when wind speeds exceed 25 miles per hour;
- Disturbed areas shall be replaced with ground cover or paved immediately after construction is completed in the affected area;
- Gravel bed trackout aprons (3 inches deep, 25 feet long, 12 feet wide per lane and edged by rock berm or row of stakes) shall be installed to reduce mud/dirt trackout from unpaved truck exit routes;
- On-site vehicle speed shall be limited to 15 miles per hour;
- All on-site roads shall be paved as soon as feasible, watered twice daily, or chemically stabilized;
- Visible dust beyond the property line which emanates from the project shall be prevented to the maximum extent feasible;
- All material transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust prior to departing the job site;
- Reroute construction trucks away from congested streets or sensitive receptor areas;
- Track-out devices shall be used at all construction site access points; and
- All delivery truck tires shall be watered down and/or scraped down prior to departing the job site.

c) ***Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?***

Less Than Significant Impact With Mitigation Incorporated.



Cumulative Construction Impacts

With respect to the proposed project's construction-period air quality emissions and cumulative Basin-wide conditions, the SCAQMD has developed strategies to reduce criteria pollutant emissions outlined in the 2012 AQMP pursuant to Federal Clean Air Act mandates. As such, the proposed project would comply with SCAQMD Rule 403 requirements, and implement all feasible mitigation measures (Mitigation Measure AQ-1). Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. In addition, the proposed project would comply with adopted 2012 AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, the implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on construction projects throughout the Basin, which would include related projects.

Compliance with SCAQMD rules and regulations and Mitigation Measure AQ-1 would reduce the project's construction-related impacts to a less than significant level during construction. Thus, it can be reasonably inferred that the project-related construction emissions, in combination with those from other projects in the area, would not substantially deteriorate the local air quality. Thus, a less than significant impact would occur in this regard.

Cumulative Long-Term Impacts

As discussed previously, the proposed project would not result in long-term air quality impacts, as emissions would not exceed the SCAQMD adopted operational thresholds. Additionally, adherence to SCAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. Emission reduction technology, strategies, and plans are constantly being developed. As a result, the proposed project would not contribute a cumulatively considerable net increase of any nonattainment criteria pollutant. Therefore, cumulative operational impacts associated with implementation of the proposed project would be less than significant.

Mitigation Measures: Refer to Mitigation Measure AQ-1.

d) ***Expose sensitive receptors to substantial pollutant concentrations?***

Less Than Significant Impact With Mitigation Incorporated. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. The California Air Resources Board (CARB) has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Sensitive receptors near the project site include surrounding residences to the north, south, and west, and Catskill Avenue Elementary School located approximately 0.25 miles north of the project site at 23536 Catskill Avenue. In order to identify impacts to sensitive receptors, the SCAQMD recommends addressing localized significance thresholds for construction and operations impacts (stationary sources only).

Localized Significance Thresholds

Localized Significance Thresholds (LSTs) were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized air quality impacts. The SCAQMD provides the LST lookup tables for one, two, and five acre projects emitting CO, NO_x, PM_{2.5}, or PM₁₀. The LST methodology and associated mass rates are not designed to



evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres should perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The project is located within Source Receptor Area (SRA) 4, South Los Angeles Coastal County.

The SCAQMD guidance on applying CalEEMod to LSTs specifies the amount of acres a particular piece of equipment would likely disturb per day. The project site is approximately 1.22 acres, and thus, the project would disturb no more than 1.22 acres of land per day. Therefore, the LST thresholds for one acre were utilized for the construction LST analysis. The closest sensitive receptors to the project site are residential uses to the south. These sensitive land uses may be potentially affected by air pollutant emissions generated during on-site construction activities. LST thresholds are provided for distances to sensitive receptors of 25, 50, 100, 200, and 500 meters. As the nearest sensitive uses adjoin the project site, the lowest available LST values for 25 meters were used. Table 4.3-3, Localized Significance of Emissions, shows the localized unmitigated and mitigated construction-related emissions for NO_x, CO, PM₁₀, and PM_{2.5} compared to the LSTs for SRA 4, South Los Angeles Coastal County. It is noted that the localized emissions presented in Table 4.3-3 are less than those in Table 4.3-1 because localized emissions include only on-site emissions (i.e., from construction equipment and fugitive dust), and do not include off-site emissions (i.e., from hauling activities). As shown in Table 4.3-3, mitigated construction emissions would not exceed the LSTs for SRA 4. Therefore, localized significance impacts from construction would be less than significant with implementation of Mitigation Measure AQ-1.

**Table 4.3-3
Localized Significance of Emissions**

Source	Pollutant (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Construction				
Year 1 (2016)				
Total Unmitigated Emissions ¹	38.26	25.25	10.38	6.20
Total Mitigated Emissions ¹	38.26	25.25	2.93	2.12
Localized Significance Threshold ²	57	585	4	3
Thresholds Exceeded?	No	No	No	No
Year 2 (2017)				
Total Unmitigated Emissions ¹	35.37	22.02	2.17	2.03
Total Mitigated Emissions ¹	35.37	22.02	2.17	2.03
Localized Significance Threshold ²	57	585	4	3
Thresholds Exceeded?	No	No	No	No
Operational				
Unmitigated Area Source Emissions	0.50	38.09	4.99	4.99
Mitigated Area Source Emissions	0.06	5.42	0.03	0.03
Localized Significance Threshold ²	57	585	1	1
Thresholds Exceeded?	No	No	No	No
Note:				
1. Construction emissions include the worst-case on-site emissions: For construction Year 1, the construction phase emission are presented as the worst case scenario for NO _x and CO emissions, and the grading phase emissions are presented as the worst case scenario for PM ₁₀ and PM _{2.5} emissions. For construction Year 2, the construction phase emissions are presented as the worst case scenario for each pollutant.				
2. The Localized Significance Threshold was determined using Appendix C of the SCAQMD <i>Final Localized Significant Threshold Methodology</i> guidance document for pollutants NO _x , CO, PM ₁₀ , and PM _{2.5} . The Localized Significance Threshold was based on the anticipated daily acreage disturbance for construction, the total acreage for operational, the distance to sensitive receptors, and the source receptor area (SRA 4).				



For project operations, the one-acre threshold was utilized. As the nearest sensitive uses adjoin the project site, the 25 meter threshold was used. [Table 4.3-3](#) depicts PM₁₀ and PM_{2.5} mitigated operational emissions would not exceed the LST screening threshold. As noted above, the area source emissions do not include the use of wood burning fireplaces per SCAQMD Rule 445, and include Project Design Features that are inherent to the project's location and design. These reductions are accounted for in the CalEEMod results as "mitigated emissions". As seen in [Table 4.3-3](#), operational emissions are below the LSTs for SRA 4 with implementation of the Project Design Features, and a less than significant impact would occur in this regard.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels (i.e., adversely affecting residents, school children, hospital patients, the elderly, etc.).

The SCAQMD requires a quantified assessment of CO hotspots when a project increases the volume-to-capacity ratio (also called the intersection capacity utilization) by 0.02 (two percent) for any intersection with an existing level of service LOS D or worse. Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersections.

The Basin is designated as an attainment/maintenance area for the Federal CO standards and an attainment area for State standards. There has been a decline in CO emissions even though vehicle miles traveled on U.S. urban and rural roads have increased. On-road mobile source CO emissions have declined 24 percent between 1989 and 1998, despite a 23 percent rise in motor vehicle miles traveled over the same 10 years. California trends have been consistent with national trends; CO emissions declined 20 percent in California from 1985 through 1997 while vehicle miles traveled increased 18 percent in the 1990s. Three major control programs have contributed to the reduced per-vehicle CO emissions: exhaust standards, cleaner burning fuels, and motor vehicle inspection/maintenance programs.

A detailed CO analysis was conducted in the *Federal Attainment Plan for Carbon Monoxide (CO Plan)* for the SCAQMD's *2003 Air Quality Management Plan*. The locations selected for microscale modeling in the CO Plan are worst-case intersections in the Basin, and would likely experience the highest CO concentrations. Thus, CO analysis within the CO Plan is utilized in a comparison to the proposed project, since it represents a worst-case scenario with heavy traffic volumes within the Basin.

Of these locations, the Wilshire Boulevard/Veteran Avenue intersection in Los Angeles experienced the highest CO concentration (4.6 parts per million [ppm]), which is well below the 35-ppm 1-hr CO Federal standard. The Wilshire Boulevard/Veteran Avenue intersection is one of the most congested intersections in Southern California with an average daily traffic (ADT) volume of approximately 100,000 vehicles per day. As the CO hotspots were not experienced at the Wilshire Boulevard/Veteran Avenue intersection, it can be reasonably inferred that CO hotspots would not be experienced at any intersections within the City of Carson near the project site due the addition of approximately 357 daily trips that would occur as a result of project implementation. Therefore, impacts would be less than significant in this regard.

Parking Structure Hotspots

Carbon monoxide concentrations are a function of vehicle idling time, meteorological conditions, and traffic flow. Therefore, parking structures (and particularly subterranean parking structures) tend to be of concern regarding CO hotspots, as they are enclosed spaces with frequent cars operating in cold start mode. Approximately 67 parking spaces would be constructed within one structure. The proposed project would be required to comply with the ventilation requirements of the International Mechanical Code (Section 403.5 [Public Garages]), which requires that mechanical ventilation systems for public garages operate automatically upon detection of a concentration of carbon



monoxide of 25 ppm by approved detection devices. The 25 ppm trigger is the maximum allowable concentration for continuous exposure in any eight hour period according to the American Conference of Governmental Industrial Hygienists.² Impacts in regards to parking structure CO hotspots would be less than significant.

Mitigation Measures: Refer to Mitigation Measures AQ-1.

e) ***Create objectionable odors affecting a substantial number of people?***

Less Than Significant Impact. According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any uses identified by the SCAQMD as being associated with odors.

Construction activities associated with the project may generate detectable odors from heavy-duty equipment exhaust. Construction-related odors would be short-term in nature and cease upon project completion. Any impacts to existing adjacent land uses would be short-term and are less than significant.

Mitigation Measures: No mitigation is required.

² INTEC Controls, *Carbon Monoxide (CO) Detection and Control Systems for Parking Structures, Guidelines for the Design Engineer*, http://www.inteccontrols.com/pdfs/CO_Parking_Garage_Design_Guidelines.pdf, accessed March 25, 2015.



SEPULVEDA AND PANAMA MIXED USE PROJECT
Public Review Draft Initial Study/Mitigated Negative Declaration

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4.4 BIOLOGICAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				✓
c. 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?				✓
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				✓
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✓	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

- a) ***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 Game or U.S. Fish and Wildlife Service?***

No Impact. The project site is located within an urbanized area, and is comprised of vacant disturbed land. As such, the project site does not contain habitat supportive of special status plant or wildlife species. The project site mainly contains invasive weed species, although ornamental shrubs are located along the western boundary of the site (associated with the adjoining property to the west). The project would not require the removal or modification of the ornamental shrubs associated with the adjoining property to the west. As such, project implementation would not result in a substantial adverse effect, either directly or through habitat modifications, on any sensitive species. Thus, no impacts in this regard would occur.

Mitigation Measures: No mitigation is required.



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

No Impact. As stated above within Response 4.4(a), the project site is vacant and highly disturbed. The project site and surrounding area does not support riparian habitat or sensitive natural communities. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- c) ***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?***

No Impact. Refer to Responses 4.4(a) and 4.4(b), above. The project site has is highly disturbed and is devoid of sensitive plants, wildlife, and habitats (including wetlands). Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

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

No Impact. The project site currently consists of vacant disturbed land, and is located within an urbanized portion of the City. Due to the lack of quality biological habitat within and immediately surrounding the site, the proposed project would not interfere with the movement of fish or wildlife or impact wildlife corridors. The project site and surrounding properties contain nominal ornamental landscaping and do not provide opportunities for the movement of wildlife. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- e) ***Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

Less Than Significant Impact. As discussed in Responses 4.4(a) and 4.4(b), above, the proposed project would not result in impacts to sensitive biological resources and it would not conflict with local policies or ordinances regarding the protection of such resources. The project site is currently comprised of disturbed vacant land. Nominal ornamental landscaping is located along the western boundary of the project site, and is associated with the adjoining property to the west.

Three trees on the project site would be removed as part of the proposed project. Any trees within public right-of-way that would be removed as part of the project would be required to comply with the *Carson Municipal Code* (Municipal Code) Chapter 9, City Tree Preservation and Protection. Municipal Code Chapter 9 provides general planting, pruning, maintenance, and removal guidelines for the preservation and protection of parkway trees in the City in order to maintain the community's natural environment. Although Exhibit "A", *Parkway Tree Master Plan*, of Chapter 9 provides a list of City approved tree species for parkways, it does not specifically identify protected tree species. None of the on-site trees are designated as protected species. The project Applicant and/or contractor would work closely with the Community Development Director and Public Works Department to ensure that the proposed tree removal activities for the project would comply with the City's Tree Preservation and Protection ordinance (Municipal Code Chapter 9). Compliance with Municipal Code Chapter 9 would result in a less than significant impact.



Mitigation Measures: No mitigation is required.

f) ***Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

No Impact. The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



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4.5 CULTURAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?				✓
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?		✓		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d. Disturb any human remains, including those interred outside of formal cemeteries?			✓	

a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5?

No Impact. The project site currently consists of vacant disturbed land. As such, there are no buildings or other features on-site that have been identified as having historical significance. The City of Carson does not have any historical resources listed on the National Register of Historic Places, although the State of California Office of Historic Preservation (OHP) has designated the site of the initial United States Air Meet as a historic site within Carson.¹ However, this site is located over three miles north of the project site, and would not be impacted by the project. Further, the surrounding properties are not identified as historic resources in the *Carson General Plan* (General Plan), National Register of Historic Place, or OHP. As such, project implementation would not cause a substantial adverse change in the significance of a historical resource. No impact would occur in this regard.

Mitigation Measures: No mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Less Than Significant Impact With Mitigation Incorporated. According to the *Carson General Plan EIR* (General Plan EIR), the Suangna Native American tribe was at one time located near the Pioneer building at the Watson Industrial Center, located approximately 0.60 miles east of the project site. No additional archaeological sites or resources are known to exist within the City.² The project site is located within a highly developed area, and is comprised of vacant disturbed land. As such, the potential for archaeological resources at the project site is considered low. Although archaeological resources are not anticipated to be encountered during construction of the proposed project, the unearthing of unknown archaeological resources during excavation and grading activities is possible. Therefore, Mitigation Measure CUL-1 is provided in the unlikely event such resources are discovered during the grading and excavation process. Upon implementation of the recommended mitigation measure, impacts would be less than significant.

¹ City of Carson, *Carson General Plan*, October 11, 2004.

² City of Carson, *Carson General Plan Environmental Impact Report*, July 11, 2003.



Mitigation Measures:

CUL-1 If evidence of subsurface archaeological resources is found during construction, excavation, and other construction activity in that area shall cease and the construction contractor shall contact the City of Carson Community Development Department. With direction from the Community Development Department, an archaeologist certified by the County of Los Angeles shall be retained to evaluate the discovery prior to resuming grading in the immediate vicinity of the find. If warranted, the archaeologist shall collect the resource and prepare a technical report describing the results of the investigation. The test-level report shall evaluate the site including discussion of significance (depth, nature, condition, and extent of the resources), final mitigation recommendations, and cost estimates.

c) ***Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

Less Than Significant Impact with Mitigation Incorporated. As noted above, the project site is highly disturbed and exists within a highly developed area of the City. According to the General Plan EIR, no known paleontological resources or sites or unique geologic features are known to exist within the City of Carson or at the project site. Although it is not expected that paleontological resources would be encountered during construction, the project would require excavation and trenching that could unearth undocumented subsurface paleontological resources. As such, Mitigation Measure CUL-2 is provided in the unlikely event such resources are discovered during the grading and excavation process. Upon implementation of the recommended mitigation measure, impacts would be less than significant.

Mitigation Measures:

CUL-2 If evidence of subsurface paleontological resources is found during construction, excavation and other construction activity in that area shall cease and the construction contractor shall contact the City of Carson Community Development Director. With direction from the Community Development Director, a paleontologist certified by the County of Los Angeles shall evaluate the find prior to resuming grading in the immediate vicinity of the find. If warranted, the paleontologist shall prepare and complete a standard Paleontological Resources Mitigation Program for the salvage and curation of identified resources.

d) ***Disturb any human remains, including those interred outside of formal cemeteries?***

Less Than Significant Impact. No conditions exist that suggest human remains are likely to be found on the project site. Due to the disturbed nature of the project site, it is not anticipated that human remains, including those interred outside of formal cemeteries, would be encountered during earth removal or disturbance activities. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. State of California Public Resources Health and Safety Code Section 7050.5-7055 describe the general provisions for human remains. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are accidentally discovered during excavation of a site. As required by State law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant.” If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlay adjacent remains until the County coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with existing State regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard would be considered less than significant.

Mitigation Measures: No mitigation is required.



4.6 GEOLOGY AND SOILS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			✓	
2) Strong seismic ground shaking?		✓		
3) Seismic-related ground failure, including liquefaction?		✓		
4) Landslides?			✓	
b. Result in substantial soil erosion or the loss of topsoil?		✓		
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?		✓		
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		✓		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				✓

a) ***Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:***

1) ***Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.***

Less Than Significant Impact. Southern California, including the project area, is subject to the effects of seismic activity due to the active faults that traverse the area. Active faults are defined as those that have experienced surface displacement within Holocene time (approximately the last 11,000 years) and/or are in a State-designated Earthquake Fault Zone. According to the *Carson General Plan EIR* (General Plan EIR), the project site is not located within an Alquist-Priolo Earthquake Fault Zone; the most prominent faults or zones that present a seismic hazard to the City of Carson include: Newport-Inglewood Fault zone; San Andreas Fault zone; Palos Verdes Fault zone; Whittier Fault zone (Elysian Park structure); and Santa Monica Fault zone. The closest fault to the project site is the Newport-Inglewood Fault zone, located approximately three miles to the north/northeast.¹ The Palos Verdes Fault

¹ State of California Department of Conservation, *Regulatory Maps*, <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>, accessed March 23, 2015.



zone is located approximately four miles to the south/southeast.² As such, no zoned faults pass through the site or are in proximity to the project site. Therefore, the potential for damage due to direct fault rupture is considered unlikely. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

2) Strong seismic ground shaking?

Less Than Significant Impact With Mitigation Incorporated. Southern California has numerous active seismic faults subjecting people to potential earthquake and seismic-related hazards. Seismic activity poses two types of potential hazards for people and structures, categorized either as primary or secondary hazards. Primary hazards include ground rupture, ground shaking, ground displacement, subsidence, and uplift from earth movement. Primary hazards can also induce secondary hazards such as ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (seiches), movement on nearby faults (sympathetic fault movement), dam failure, and fires.

As stated above in Response 4.6(a), no faults (active, potentially active, or inactive) are known to exist in the site vicinity. However, there are several earthquakes throughout the region that have the potential to cause substantial ground shaking. The intensity of earthquakes is measured, or expressed in terms of two scales. The Richter Scale measures the strength of an earthquake, or the strain energy released, as determined by seismographic observations. The Mercalli Intensity Scale describes the intensity in terms of observable impacts. The anticipated earthquake with a projected magnitude of 7.5 to 8.0 is thought to be capable of seismic intensity values of about IV to V on the Modified Mercalli (MM) Scale; refer to [Table 4.6-1, Modified Mercalli Intensity Scale](#), below. Such an event would have an expected shaking duration of 35 to 50 seconds.

As stated above, there are several earthquake faults and zones throughout the region that have the potential to cause significant strong ground shaking in the City of Carson. The project site would likely experience strong seismic ground shaking during its design life. Given the proximity of major faults in the Southern California region to the project site, the proposed project could be subjected to seismic shaking, as are all habitable structures within the majority of Southern California. All building construction associated with the project would be subject to the City's existing construction ordinances and the California Building Code (CBC) in order to minimize hazards during a seismic event. The CBC includes standards related to soils and foundations, structural design, building materials, and structural testing and inspections. Adherence to these building requirements as part of Mitigation Measure GEO-1 would minimize risks related to seismic shaking to a less than significant level.

Mitigation Measures:

GEO-1 Prior to issuance of a building permit, the Building Official shall ensure that final engineering plans meet the design parameters for seismic safety identified in the latest version of the City Building Code seismic design standards, California Building Code.

² Ibid.



Table 4.6-1
Modified Mercalli Intensity Scale

Intensity	Shaking	Description/Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
VII	Very Strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent.

Source: U.S. Geological Survey, *The Modified Mercalli Intensity Scale*, October 2, 2014.

3) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact with Mitigation Incorporated. Liquefaction is a process by which sediments below the water table temporarily lose strength and behave as a viscous liquid rather than a solid. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil. In addition to the requisite soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction. Based on the Regulatory Maps prepared by the State of California Department of Conservation, the project site is not located within a State California Seismic Hazard Zone for liquefaction potential.³

Lateral spreading is a type of liquefaction-induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures. Due to the site being relatively level and the lack of an adjacent free face to drive lateral spreading, the potential for lateral spreading is considered very low.

³ Ibid.



As noted in Response 4.6(a)(2), the CBC includes requirements for soils and foundations, structural design, building materials, and structural testing and inspections. These requirements minimize the potential for hazards related to liquefiable soils. Thus, since the project would be designed and constructed in accordance with CBC requirements, impacts in this regard are considered less than significant. Additionally, Mitigation Measure GEO-1 requires the project to comply with the recommendations within the CBC. Thus, since the project would be designed and constructed in accordance with CBC requirements, impacts pertaining to liquefaction would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

4) Landslides?

Less Than Significant Impact. The project site and surrounding area are relatively flat, making the possibility for landslides extremely remote. As a result, there is no potential for landslides to occur on or near the project site as a result of the proposed project. Additionally, the project site is not located within an area mapped as potentially affected by earthquake-induced landslide, or as having the potential for slope instability by the State of California Seismic Hazard Zones Map, Torrance Quadrangle, or the General Plan EIR. Therefore, project implementation would result in less than significant impacts associated with the exposure of people or structures to potential substantial adverse effects involving landslides.

Mitigation Measures: No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact with Mitigation Incorporated. Grading, earthwork, and landscape/hardscape installation activities associated with project construction would expose soils to potential short-term erosion by wind and water. However, the project site is generally flat, which would reduce potential erosion by water. All demolition and construction activities associated with the project would be required to implement Best Management Practices (BMPs) to prevent sedimentation from project site stormwater runoff and winds. These BMPs would be included in a Stormwater Pollution Prevention Plan (SWPPP) as part of the required National Pollutant Discharge Elimination System (NPDES) General Construction Permit (GCP). Compliance with the GCP would prevent erosion and loss of topsoil at the project site during construction activities.

Long-term operation of the proposed project would not result in substantial soil erosion or loss of topsoil, as the majority of the project site would be covered by the proposed mixed-use development and paving, while the remaining portions of the project site would be covered with irrigated landscaping and open space areas. With implementation of the applicable grading and building permit requirements and the implementation of applicable BMPs, a less than significant impact would occur with regards to erosion or loss of topsoil. Further discussion of erosion as it relates to surface water quality is provided in Section 4.9, Hydrology and Water Quality.

Mitigation Measures: Refer to Mitigation Measures HWQ-1 through HWQ-4, and GEO-1.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact with Mitigation Incorporated. As discussed above, the project site is located within a seismically active region. Impacts related to liquefaction would be less than significant with implementation of Mitigation Measure GEO-1, as stated within Response 4.6(a)(3). In addition, the project site would not be subject to earthquake-induced landslides [refer to Response 4.6(a)(4)].



Subsidence is a general lowering of the ground surface over a large area, and is generally attributed to lowering of the groundwater levels, settlement of peat, and oxidation of peat. More localized or focal subsidence or settlement of the ground can occur as a result of earthquake motion. This type of settlement and consequent differential settlement results from compaction of loose cohesionless soils. In addition, according to the General Plan EIR, subsidence has occurred within the City as a result of previous oil withdrawal within the Dominguez and Wilmington Oil Fields, which are located approximately 2.5 miles northeast of the project site. The City of Carson has maintained control of any further subsidence within the City. As such, subsidence at the project site is not likely.

Lateral spreading (a form of landsliding) is referred to as limited displacement ground failure, often associated with liquefaction. Compact surface materials may slide on liquefied, or low shear strength layers at shallow depth, moving laterally several feet down slopes of less than two degrees. As noted above, the project site is generally flat and would not be subject to earthquake-induced landslides. Implementation of Mitigation Measure GEO-1 would require compliance with the CBC and all City provisions related to construction and design guidelines, which prevent injury or other adverse effects potentially caused by geological hazards, including lateral spreading. Given that the project is subject to compliance with the CBC and City guidelines to ensure that proper construction methods would safeguard against the potential risks associated with subsidence and lateral spreading, project implementation would result in less than significant impacts in this regard.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

- d) ***Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?***

Less Than Significant Impact With Mitigation Incorporated. Expansive soils are defined as soils possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). As stated above, the proposed project would be designed and constructed in accordance with the requirements of the CBC and City code (refer to Mitigation Measure GEO-1), which would minimize any impacts related to expansive soils. Impacts would be considered less than significant upon implementation of Mitigation Measure GEO-1.

Mitigation Measures: Refer to Mitigation Measure GEO-1.

- e) ***Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

No Impact. No septic tanks or alternative wastewater systems would be constructed as part of the project, and therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



SEPULVEDA AND PANAMA MIXED USE PROJECT
Public Review Draft Initial Study/Mitigated Negative Declaration

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4.7 GREENHOUSE GASES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant Impact With Mitigation Incorporated.

Global Climate Change

California is a substantial contributor of global greenhouse gases (GHGs), emitting over 400 million tons of carbon dioxide (CO₂) per year.¹ Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit (°F) over the next century. Methane is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of CO₂, methane (CH₄), and nitrous oxide (N₂O) from before the start of industrialization (approximately 1750), to over 650,000 years ago. For that period, it was found that CO₂ concentrations ranged from 180 parts per million (ppm) to 300 ppm. For the period from approximately 1750 to the present, global CO₂ concentrations increased from a pre-industrialization period concentration of 280 ppm to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range.

Regulations and Significance Criteria

The Intergovernmental Panel on Climate Change (IPCC) constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that a stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent (CO₂eq)² concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change.

Executive Order S-3-05 was issued in June 2005, which established the following GHG emission reduction targets:

- 2010: Reduce GHG emissions to 2000 levels;
- 2020: Reduce GHG emissions to 1990 levels; and
- 2050: Reduce GHG emissions to 80 percent below 1990 levels.

¹ California Energy Commission, *California Greenhouse Gas Inventory for 2000-2012*, May 13, 2014.

² Carbon Dioxide Equivalent (CO₂eq) – A metric measure used to compare the emissions from various greenhouse gases based upon their global warming potential.



Assembly Bill (AB) 32 requires that the California Air Resources Board (CARB) determine what the statewide GHG emissions level was in 1990, and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 million metric tons (MMT) of CO₂eq.

Due to the nature of global climate change, it is not anticipated that any single development project would have a substantial effect on global climate change. In actuality, GHG emissions from the proposed project would combine with emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

In June 2008, the California Governor's Office of Planning and Research (OPR) published a Technical Advisory, which provides informal guidance for public agencies as they address the issue of climate change in CEQA documents.³ This is assessed by determining whether a proposed project is consistent with or obstructs the 39 Recommended Actions identified by CARB in its Climate Change Scoping Plan which includes nine Early Action Measures (qualitative approach). The Attorney General's Mitigation Measures identify areas where GHG emissions reductions can be achieved in order to achieve the goals of AB 32. As set forth in the OPR Technical Advisory and in the proposed amendments to the CEQA Guidelines Section 15064.4, this analysis examines whether the project's GHG emissions are significant based on a qualitative and performance based standard (CEQA Guidelines Section 15064.4(a)(1) and (2)).

SCAQMD Thresholds

The SCAQMD has formed a GHG CEQA Significance Threshold Working Group (Working Group) to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting No. 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.⁴

With the tiered approach, the project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. For all non-industrial projects, the SCAQMD is proposing a screening threshold of 3,000 MTCO₂eq per year. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the Tier 4 second option the project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the Tier 4 third option, the project would be excluded if it was below an efficiency-based threshold of 4.8 MTCO₂eq per service population (SP) per year.⁵ Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

³ Governor's Office of Planning and Research, *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review*, 2008.

⁴ The most recent SCAQMD GHG CEQA Significance Threshold Working Group meeting was held on September 2010.

⁵ The project-level efficiency-based threshold of 4.8 MTCO₂eq per SP per year is relative to the 2020 target date. The SCAQMD has also proposed efficiency-based thresholds relative to the 2035 target date to be consistent with the GHG reduction target date of SB 375. GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. Applying this 40 percent reduction to the 2020 targets results in an efficiency threshold for plans of 4.1 MTCO₂eq per SP per year and an efficiency threshold at the project level of 3.0 MTCO₂eq/year.



GHG efficiency metrics are utilized as thresholds to assess the GHG efficiency of a project on a per capita basis or on a “service population” basis (the sum of the number of jobs and the number of residents provided by a project) such that the project would allow for consistency with the goals of AB 32 (i.e., 1990 GHG emissions levels by 2020 and 2035). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal of the State, by the estimated 2035 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32, and is appropriate, because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed-use).

As the project involves the infill development of mixed land uses within a Specific Plan area, the 4.8 MTCO₂eq per SP per year efficiency-based threshold has been selected as the significance threshold, as it is most applicable to the proposed project. It is noted that this threshold is based on the State’s overall population and emissions goals and is supported by substantial evidence. A reduction from Business as Usual (as identified in the CARB Scoping Plan) threshold is not applicable to the project as those reduction thresholds are based on a 2008 inventory baseline and are not project specific. The 4.8 MTCO₂eq per SP per year threshold is used in addition to the qualitative thresholds of significance set forth below from section VII of Appendix G to the CEQA Guidelines.

Project-Related Sources of Greenhouse Gases

Project-related GHG emissions would include emissions from direct and indirect sources. The proposed project would result in direct and indirect emissions of CO₂, N₂O, and CH₄, and would not result in other GHGs that would facilitate a meaningful analysis. Therefore, this analysis focuses on these three forms of GHG emissions. Direct project-related GHG emissions include emissions from construction activities, area sources, and mobile sources, while indirect sources include emissions from electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. The California Emissions estimator Model (CalEEMod) relies upon trip generation rates from the Traffic Impact Analysis, and project specific land use data to calculate emissions. Accordingly, the proposed project would generate approximately 357 total daily trips. Table 4.7-1, Estimated Greenhouse Gas Emissions, presents the estimated CO₂, N₂O, and CH₄ emissions of the proposed project. The CalEEMod outputs are contained within the Appendix A, Air Quality/Greenhouse Gas Data.

Direct Project-Related Sources of Greenhouse Gases

- Construction Emissions. Construction GHG emissions are typically summed and amortized over the lifetime of the project (assumed to be 30 years), then added to the operational emissions.⁶ As seen in Table 4.7-1, the proposed project would result in 453.99 MTCO₂eq/yr, which represents 15.13 MTCO₂eq when amortized over 30 years.
- Area Source. The project would directly result in 21.86 MTCO₂eq/yr from area source emissions.
- Mobile Source. CalEEMod relies upon trip generation rates from the project Traffic Impact Analysis, and project specific land use data to calculate mobile source emissions. The project would directly result in 424.53 MTCO₂eq/yr of mobile source-generated GHG emissions; refer to Table 4.7-1.

Indirect Project-Related Sources of Greenhouse Gases

⁶ The project lifetime is based on the standard 30 year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, October 2008).



- Energy Consumption. Energy Consumption emissions were calculated using CalEEMod and project-specific land use data. Electricity would be provided to the project site via Southern California Edison. The project would indirectly result in 208.64 MTCO₂eq/year due to energy consumption; refer to Table 4.7-1.
- Water Demand. The project operations would result in a demand of approximately 7.86 million gallons of water per year. Emissions from indirect energy impacts due to water supply would result in 33.06 MTCO₂eq/year.
- Solid Waste. Solid waste associated with operations of the proposed project would result in 15.05 MTCO₂eq/year; refer to Table 4.7-1.

Table 4.7-1
Estimated Greenhouse Gas Emissions

Source	CO ₂	CH ₄		N ₂ O		Total Metric Tons of CO ₂ eq
	Metric Tons/yr	Metric Tons/yr	Metric Tons of CO ₂ eq ¹	Metric Tons/yr	Metric Tons of CO ₂ eq ¹	
Direct Emissions						
• Construction (amortized over 30 years)	15.07	0.00	0.00	0.00	0.00	15.13
• Area Source	21.27	0.02	0.50	0.00	0.00	21.86
• Mobile Source	424.16	0.02	0.50	0.00	0.00	424.53
Total Unmitigated Direct Emissions²	460.50	0.13	3.30	0.00	0.00	461.52
Indirect Emissions						
• Energy	207.69	0.00	0.00	0.00	0.00	208.64
• Water Demand	28.84	0.15	3.80	0.00	0.00	33.06
• Waste	6.72	0.40	10.00	0.00	0.00	15.05
Total Unmitigated Indirect Emissions²	243.25	0.55	13.80	0.00	0.00	256.75
Total Unmitigated Project-Related Emissions²	718.27 MTCO₂eq/yr					
Per Capita Emissions⁴	4.76 MTCO₂eq/year					
Per Capita Threshold	4.8 MTCO₂eq/year					
GHG Emissions Exceed Per Capita Threshold?	No					
Notes:						
1. CO ₂ Equivalent values calculated using the U.S. EPA Website, <i>Greenhouse Gas Equivalencies Calculator</i> , http://www.epa.gov/cleanenergy/energy-resources/calculator.html , accessed March 2015.						
2. Totals may be slightly off due to rounding.						
3. Per capita emissions are based on a service population of 151 (144 residents and 7 employees); see Section 4.13, <i>Population and Housing</i> . Refer to <u>Appendix A, Air Quality/Greenhouse Gas Data</u> , for detailed model input/output data.						

Total Project-Related Sources of Greenhouse Gases

As shown in Table 4.7-1, the total amount of proposed project-related GHG emissions from direct and indirect sources combined would total 718.27 MTCO₂eq/yr.

Project Design Features

Although the proposed project's GHG emissions are below the per capita threshold of 4.8 MTCO₂eq/yr, the project includes project design features that would further reduce project-related GHG emissions. The project consists of an infill development that would place residential and retail uses less than 0.02-mile from local bus and Metro lines and in the proximity of other land use types. The project would be subject to compliance with *Carson Municipal Code*



(Municipal Code) Chapter 10, *Water Conservation and Sustainability Measure*, which are intended to provide guidelines and standards for the reduction of water consumption through conservation, assure reasonable and beneficial use of water, prevent waste of water, maximize the efficient use of water, and minimize the effects of drought and shortage within the City. Additionally, the project would be subject to compliance with Municipal Code Part 6, Division 5, *Transportation Demand and Trip Reduction Measures*, which sets forth requirements to reduce travel demand and provide alternatives to single-occupancy commuter travel through transportation education material (e.g., rideshare promotional materials, bicycle route and facility maps and safety information, available facilities for carpoolers, vanpoolers, bicyclists, transit riders, and pedestrians) and accommodation for preferential parking spaces reserved for vanpools, bicycle racks or other secure bicycle parking. The project design also includes open space and pedestrian connections that connect pedestrian access to external streets and pedestrian facilities contiguous with the project site. The project does not include physical barriers (e.g., walls, landscaping, or slopes) that would impede pedestrian circulation. Table 4.7-2, *Reduced Greenhouse Gas Emissions*, depicts the reduced GHG emissions resulting from implementation of the project design features.

**Table 4.7-2
Reduced Greenhouse Gas Emissions**

Source	CO ₂	CH ₄		N ₂ O		Total Metric Tons of CO ₂ eq
	Metric Tons/year ¹	Metric Tons/year ¹	Metric Tons of CO ₂ eq ²	Metric Tons/year ¹	Metric Tons of CO ₂ eq ²	
Direct Emissions						
• Construction Phase (amortized over 30 years)	15.07	0.00	0.00	0.00	0.00	15.13
• Area Source	1.10	0.00	0.02	0.00	0.00	1.12
• Mobile Source	352.03	0.01	0.37	0.00	0.00	352.34
<i>Total Reduced Direct Emissions³</i>	<i>368.20</i>	<i>0.01</i>	<i>0.39</i>	<i>0.00</i>	<i>0.00</i>	<i>368.59</i>
Indirect Emissions						
• Energy	207.69	0.01	0.20	0.00	0.75	208.64
• Water Demand	24.57	0.12	2.93	0.00	0.88	27.95
• Waste	3.36	0.20	4.96	0.00	0.00	7.53
<i>Total Reduced Indirect Emissions³</i>	<i>235.62</i>	<i>0.33</i>	<i>8.09</i>	<i>0.00</i>	<i>1.63</i>	<i>244.12</i>
Total Reduced Project-Related Emissions³	612.71 MTCO₂eq/year					
Reduced Per Capita Emissions⁴	4.06 MTCO₂eq/year					
Per Capita Threshold	4.8 MTCO₂eq/year					
Reduced GHG Emissions Exceed Per Capita Threshold?	No					
Notes:						
1. Reduced emissions calculated using CalEEMod.						
2. CO ₂ Equivalent values calculated using the U.S. EPA Website, <i>Greenhouse Gas Equivalencies Calculator</i> , http://www.epa.gov/cleanenergy/energy-resources/calculator.html , accessed April 2015.						
3. Totals may be slightly off due to rounding.						
4. Per capita emissions are based on a service population of 151 (144 residents and 7 employees); see Section 4.13, <i>Population and Housing</i> .						
Refer to Appendix A, <i>Air Quality/Greenhouse Gas Data</i> , for detailed model input/output data.						



The quantifiable reduction measures applied in CalEEMod and accounted for in Table 4.7-2 from the project design features include the following:

- Increased diversity of land uses;
- Increased density of 54 dwelling units per acre;
- No hearths;
- Water-efficient irrigation systems in compliance with Municipal Code Chapter 10;
- Low-flow faucets, toilets, and showers; and
- Institute recycling and composting services to reduce solid waste by at least 50 percent.

Conclusion

As shown in Table 4.7-1, the project's GHG emissions would be 718.27 MTCO₂eq/yr, or 4.76 MTCO₂eq/yr per capita, which is below the 4.8 MTCO₂eq/yr per capita GHG threshold. Project design features include increased density, increased diversity of land uses, and compliance with Municipal Code required water conservation measures (Municipal Code Chapter 10). These design features would reduce project-related GHG emissions to 612.71 MTCO₂eq/yr, or 4.06 MTCO₂eq/yr per capita, which is further below the 4.8 MTCO₂eq/yr per capita GHG threshold; refer to Table 4.7-2. Therefore, the proposed project would result in a less than significant impact with regard to GHG emissions.

Mitigation Measures: No mitigation is required.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Less Than Significant Impact. No applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions apply to the project area. However, the Municipal Code Chapter 10, *Water Conservation and Sustainability Measure*, promotes water conservation in large landscaped areas, careful water management practices and waste water prevention for existing landscapes and other resource management directives within new construction projects in the City.

In addition, the project would be subject to applicable Federal, State, and local regulatory requirements, further reducing project-related GHG emissions. The project would develop a varied mix of residential, commercial, and open space land uses. In developing a residential/commercial mixed-use development, it would inherently reduce vehicle trips, vehicle miles traveled, and related GHG emissions. The project would not conflict with or impede implementation of reduction goals identified in AB 32 and other strategies to help reduce GHG emissions. Therefore, the project would not conflict with an applicable GHG reduction plan, policy, or regulation. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.



4.8 HAZARDS AND HAZARDOUS MATERIALS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			✓	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
h. 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?				✓

This section is based upon the following documentation for the project site; refer to [Appendix C, Hazardous Materials Documentation](#):

- *Phase I Environmental Site Assessment, Los Angeles County Assessor's Parcel Number 7406-002-039, Carson, California*, prepared by Advantage Environmental Consultants (AEC), LLC dated October 3, 2014;
- *Phase I Environmental Site Assessment, 402 E Sepulveda Boulevard, Carson, California*, prepared by Advantage Environmental Consultants (AEC), LLC dated November 18, 2014;
- *Phase II Environmental Site Assessment, Los Angeles County Assessor's Parcel Numbers 7406-002-039 and 7406-013-016, Carson, California*, prepared by Advantage Environmental Consultants (AEC), LLC dated November 18, 2014; and



- Report of Additional Subsurface Assessment, Los Angeles County Assessor's Parcel Number 7406-002-039, Carson, California, AEC Project No. 14-052SD, prepared by Advantage Environmental Consultants (AEC), LLC dated January 28, 2015.

These four documents are collectively referred to as the "Hazardous Materials Documentation" in this IS/MND; refer to Appendix C, Hazardous Materials Documentation. The intent of the Hazardous Materials Documentation is to identify conditions indicative of releases or threatened releases of hazardous substances as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) section 101, and petroleum products at the project site. The Hazardous Materials Documentation included a search for recorded environmental cleanup liens; review of Federal, tribal, State, and local government records; visual inspection of the property and of adjoining properties; and interviews with current owners, operators, and occupants.

- a) ***Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

Less Than Significant Impact. Generally, the exposure of persons to hazardous materials could occur in the following manners: 1) improper handling or use of hazardous materials or hazardous wastes during construction or operation of future development, particularly by untrained personnel; 2) an accident during transport; 3) environmentally unsound disposal methods; or 4) fire, explosion or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Construction activities associated with the proposed project may involve the routine transport, use, or disposal of hazardous materials, such as petroleum-based fuels or hydraulic fluid used for construction equipment. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for hazards associated with the transport and use of hazardous materials. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Cleaning and degreasing solvents, fertilizers, pesticides, and other materials used in the regular maintenance of buildings and landscaping would be utilized by the proposed development. While the risk of exposure to hazardous materials cannot be eliminated, measures can be implemented to reduce risk to acceptable levels. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable Federal, State, and local laws and regulations, which would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of the proposed project would be less than significant.

Mitigation Measures: No mitigation is required.

- b) ***Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Less Than Significant Impact. During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.



Current Site Activities

As discussed in Section 2.0, Project Description, the project site is comprised of vacant disturbed land. There are no existing structures or activities occurring on-site that would present a potential release of hazardous materials during construction of the proposed project. A less than significant impact would occur in this regard.

Historical Site Activities

According to the U.S. Environmental Protection Agency (USEPA), dry cleaners are known to use a significant amount of chemicals, such as perchloroethylene (perc), which pose environmental concerns. At the end of the dry cleaning process, the cleaning fluid is separated from waste water by distillation. In the past, the waste water was often poured down floor drains. Perc can seep through the ground and contaminate surface water, groundwater, and potentially drinking water. Since a small amount of perc can contaminate a large amount of water, properties within a close proximity to dry cleaners or past dry cleaner sites have been found to potentially have subsurface contamination. Based on the information provided in the Hazardous Materials Documentation, the project site was previously occupied by a dry cleaning facility from sometime between 1960 and 1970. However, no chemicals of concern associated with the former dry cleaner were detected in a subsurface soils investigation as part of the Hazardous Materials Documentation. Therefore, a less than significant impact would occur in this regard.

Off-Site Activities

According to the Hazardous Materials Documentation, the nearest off-site property with documented contamination is the former United Oil Station (320 East Sepulveda Boulevard), which adjoins the project site to the west. A total of 10 underground storage tanks (USTs) were reported at this facility. A reported release of gasoline occurred at this property, and has undergone several rounds of assessment and remediation since 1996. Ongoing groundwater monitoring exposed elevated concentrations of petroleum hydrocarbons and other volatile organic compounds (VOCs) in the vicinity of this property, resulting in an environmental recognized condition (REC) (according to the Hazardous Materials Documentation). The United Oil Station is currently undergoing remediation activities, and remains an open case with the Los Angeles Regional Water Quality Control Board (LARWQCB) as of February 2015. As such, a subsurface soils investigation was conducted to determine the levels of VOC contamination in the soils beneath the proposed project site. According to the Hazardous Materials Documentation, VOCs were not detected at or above the allowed levels in any of the soil samples analyzed. In addition, neither VOCs nor methane were detected at or above the allowed levels in the soil gas samples collected. Thus, additional soil and soil gas assessments at the project site are not necessary. A less than significant impact would occur with regard to hazardous materials contamination associated with off-site properties.

Long-Term Operational Impacts

Due to the nature of the proposed project (residential and commercial mixed-use development), there would be no substantial use of hazardous materials as part of long-term operations. Once constructed, the proposed project would not result in the significant transport, use, or disposal of hazardous materials. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- c) ***Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Less Than Significant Impact. The nearest school to the project site is Catskill Avenue Elementary School (located at 23536 Catskill Avenue) located approximately 0.25-mile to the north. The proposed project consists of a residential/commercial mixed-use development that may require the handling of hazardous materials at the project.



These activities would be required to comply with Federal, State, and local laws and regulations regarding the handling and transport of hazardous materials. With compliance with Federal, State, and local laws and regulations, the project would not result in any negative impacts involving the handling of hazardous materials, substances, or waste within the vicinity of this school. Impacts in this regard would be less than significant.

The proposed project would result in the construction of a residential/commercial mixed-use development, which could involve the handling of hazardous materials or hazardous emissions from the ground level businesses. However, as discussed in Response 4.8(a) above, the types of hazardous materials that could be utilized during operation of the future businesses are expected to include cleaning and maintenance products, pesticides and herbicides, paints, and solvents and degreasers. It is not anticipated that the future businesses would involve the disposal of hazardous materials in reportable quantities. Further, future businesses would be required to comply with the applicable Federal, State, and local laws and regulations regarding the handling of hazardous substances. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

- d) ***Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Less Than Significant Impact. Government Code Section 65962.5 refers specifically to a list of hazardous waste facilities compiled by the Department of Toxic Substances Control (DTSC). According to the Hazardous Materials Documentation, the project site is not listed in any regulatory agency database records. Additionally, the project site is not included on the DTSC's hazardous waste facilities list.¹ Therefore, the project site has not been included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

- e) ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

No Impact. The project is not located within an airport land use plan and there are no public or private airports or airstrips within two mile of the project site. The Torrance Municipal Airport is located approximately 3.5 miles to the west of the project site. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

- f) ***For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?***

No Impact. Refer to Response 4.8(e).

Mitigation Measures: No mitigation is required.

- g) ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

¹ Department of Toxic Substances Control, *Hazardous Waste and Substance Site List (CORTESE)*, http://www.envirostor.dtsc.ca.gov/public/mandated_reports.asp, accessed on March 13, 2015.



Less Than Significant Impact. The proposed project would not cause any permanent alterations to vehicular circulation routes and/or patterns, or obstruct public access or travel. Additionally, all construction staging would occur within the boundaries of the project site and would not interfere with circulation along Sepulveda Boulevard, Panama Avenue, or any other nearby roadways. Therefore, the proposed project would not be expected to interfere with any adopted emergency response plan or emergency evacuation plan. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

h) 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?

No Impact. The project site is located within a highly urbanized area of Carson with little natural vegetation, and the surrounding area is not identified as having the potential for wildland fires. As such, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.



SEPULVEDA AND PANAMA MIXED USE PROJECT
Public Review Draft Initial Study/Mitigated Negative Declaration

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4.9 HYDROLOGY AND WATER QUALITY

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?		✓		
b. 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 uses for which permits have been granted)?			✓	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		✓		
d. 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?			✓	
e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?		✓		
f. Otherwise substantially degrade water quality?		✓		
g. 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?				✓
h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
i. 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?			✓	
j. Inundation by seiche, tsunami, or mudflow?				✓

a) *Violate any water quality standards or waste discharge requirements?*

Less Than Significant Impact With Mitigation Incorporated. Urban runoff (both dry and wet weather) discharges into storm drains and, in most cases, flows directly to creeks, rivers, lakes, and the ocean. Polluted runoff can have harmful effects on drinking water, recreational water, and wildlife. Urban runoff pollution includes a wide array of environmental, chemical, and biological compounds from both point and non-point sources. In the urban environment, stormwater characteristics depend on site conditions (e.g., land use, impervious cover, pollution prevention, types and amounts of Best Management Practices [BMPs]), rain events (duration, amount of rainfall, intensity, and time between events), soil type and particle sizes, multiple chemical conditions, the amount of vehicular traffic, and atmospheric deposition. Major pollutants typically found in runoff from urban areas include sediments, nutrients, oxygen-demanding substances, heavy metals, petroleum hydrocarbons, pathogenic, and bacteria.



Urban runoff can be divided into two categories; dry and wet weather urban runoff:

- Dry weather urban runoff occurs when there is no precipitation-generated runoff. Typical sources include landscape irrigation runoff; driveway and sidewalk washing; noncommercial vehicle washing; groundwater seepage; fire flow; potable water line operations and maintenance discharges; and permitted or illegal non stormwater discharges.
- Wet weather urban runoff refers collectively to non-point source discharges that result from precipitation events. Wet weather runoff includes stormwater runoff. Stormwater discharges are generated by runoff from land and impervious areas such as paved streets and parking lots, building rooftops.

Wet- and dry-weather runoff typically contains similar pollutants of concern. However, except for the first flush concentrations following a long period between rainfall, the concentrations levels found in wet weather flows are typically lower than levels found in dry weather flows because the larger wet weather flows dilute the amount of pollution in runoff waters. Most urban stormwater discharges are considered non-point sources and are regulated by a National Pollutant Discharge Elimination System (NPDES) Municipal General Permit or Construction General Permit.

The project's water quality impacts would be short-term during the earthwork and construction phase, and following construction, prior to the establishment of ground cover, and long-term following completion.

Short-Term Construction

Short-term impacts related to water quality would occur during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest. Additionally, impacts would occur prior to the establishment of ground cover, when the erosion potential may remain relatively high. Construction of the proposed project has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides and herbicides, toxic chemicals related to construction and cleaning, waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes, fuel, and lubricants. Impacts to stormwater quality would occur from construction and associated earth moving, and increased pollutant loadings would occur immediately offsite.

Dischargers whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The project would disturb approximately 1.22 acres of land surface, and thus, would be required to obtain coverage under the NPDES Construction General Permit (Permit). To obtain coverage under the Permit, the project landowner is required to submit a Notice of Intent (NOI) prior to construction activities (Mitigation Measure HWQ-1), and develop and implement a Storm Water Pollution Prevention Plan (SWPPP) (Mitigation Measure HWQ-2). The SWPPP should contain a site map(s), which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list BMPs the discharger would use to protect storm water runoff and the placement of those BMPs. Example BMPs include, but are not limited to, sediment traps, storm drain inlet protection, wind erosion control, and solid waste management. Additionally, the SWPPP must contain:

- A visual monitoring program;



- A chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and
- A sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

Section A of the Construction General Permit describes the elements that must be contained in a SWPPP. The Construction General Permit requirements must be satisfied prior to beginning construction. Upon completion of construction, the project applicant would be required to submit a Notice of Termination (NOT) to the State Water Resources Quality Control Board (SWRQCB) to indicate construction is complete (Mitigation Measure HWQ-3).

Construction activities associated with the proposed project would have a less than significant impact on surface water quality and would not significantly impact the beneficial uses of receiving waters with compliance with Mitigation Measures HWQ-1, HWQ-2, and HWQ-3, which would ensure adherence to construction requirements per the State. With implementation of Mitigation Measures HWQ-1, HWQ-2, and HWQ-3, short-term water quality impacts would be reduced to less than significant levels.

Long-Term Operation

The proposed project is subject to the Los Angeles County Department of Public Works (LACDPW) requirement for the Standard Urban Stormwater Mitigation Plan (SUSMP) under the “Redevelopment” category. As detailed in the SUSMP, the proposed project would include a range of permanent Best Management Practices (BMPs) to control the off-site discharge of pollutants in accordance with NPDES requirements. The following materials are anticipated to be used in activities at the project site, which would potentially contribute to pollutants to stormwater runoff:

- Vehicle fluids, including oil, grease, petroleum, and coolants from personal vehicles;
- Landscaping materials and wastes (topsoil, plant materials, herbicides, fertilizers, mulch, pesticides); and
- General trash debris and litter.

Permanent post-construction stormwater management mitigation would be implemented per the County of Los Angeles Department of Public Works Low Impact Development Standards Manual, dated February 14, 2014. Low Impact Development (LID) is a storm water management strategy with goals to mitigate the impacts of increased runoff and storm water pollution as close to its source as possible. Per the latest LID guidelines new construction developments must treat stormwater through infiltration, capture and reuse, or biofiltration.

Los Angeles County standards require the flow and volume generated from the 85th percentile 24-hour rainfall depth to be captured and treated onsite. The proposed project would generate a peak mitigated flow of approximately 1.14 cubic feet per second (CFS), and mitigated volume of approximately 13,000 cubic feet (CF). Following compliance with NPDES requirements and County LID standards, including Mitigation Measure HWQ-4, long-term water quality impacts would be less than significant.

Mitigation Measures:

- HWQ-1 Prior to Grading Permit issuance and as part of the project’s compliance with the NPDES requirements, a Notice of Intent (NOI) shall be prepared and submitted to the State Water Resources Quality Control Board (SWRQCB), providing notification and intent to comply with the State of California General Permit.
- HWQ-2 Prior to the issuance of grading permits, that Chief Building Official shall confirm that the project plans and specifications conform to the requirements of an approved Storm Water Pollution Prevention Plan (SWPPP) (to be applied for during the Grading Plan process) and the NPDES Permit for General Construction Activities No. CAS000002, Order No. 2009-0009-DWQ, including implementation of all



recommended Best Management Practices (BMPs), as approved by the State Water Resources Quality Control Board (SWRQCB).

HWQ-3 Upon completion of project construction, the project applicant shall submit a Notice of Termination (NOT) to the State Water Resources Quality Control Board (SWRQCB) to indicate that construction is completed.

HWQ-4 As part of the plan review process (prior to the issuance of grading permits), the City of Carson shall ensure that project plans identify a suite of stormwater quality BMPs that are designed to address the most likely sources of stormwater pollutants resulting from operation of the proposed project, consistent with the SUSMP. Pollutant sources to be addressed by these BMPs include, but are not necessarily limited to landscaped areas, trash storage locations, and storm drain inlets. The design and location of these BMPs will be subject to review and comment by the City but shall generally adhere to the standards associated with the Phase II NPDES stormwater permit program. Implementation of these BMPs shall be assured by the City Engineer prior to the issuance of Grading or Building Permits.

b) ***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 uses for which permits have been granted)?***

Less Than Significant Impact. The project site is currently developed with mostly pervious surfaces. The proposed project consists of the construction of a residential/commercial mixed-use development, resulting in an increase in impervious surfaces compared to existing conditions. However, the project site is not located within a designated groundwater recharge area. The site does not currently affect groundwater directly (through pumping, wells, or injection), nor would the proposed project include any components that would directly affect groundwater. Once the existing surface is saturated, water from the project site flows via sheet flow across the project site to the street. Additionally, given the size and location of the project site, project implementation would not substantially interfere with groundwater recharge, such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. Additionally, refer to Response 4.17(d) for water impacts to the City's water supply, including groundwater. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

c) ***Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?***

Less Than Significant Impact With Mitigation Incorporated. Construction activities associated with the proposed project could result in a temporary increase in erosion and siltation at the project site. However, a detailed Erosion Control Plan would be created during the design phase of the project, and would be implemented during the lifetime of the construction phase to minimize erosion and siltation both on- and off-site. The project's Erosion Control Plan would include Erosion and Sediment Control BMPs such as sandbags, storm drain inlet protection, stabilized construction entrances, street sweeping, and sediment basins. Construction BMPs would be outlined in the project specific SWPPP, as discussed above in Response 4.9(a).

Stormwater catch basins are located within the adjacent public right-of-ways. Project implementation would result in increased stormwater runoff from the site due to an increase in impervious surfaces. However, site and roof runoff from the project would be conveyed via non-erosive storm drain devices, and on-site infiltration in compliance with stormwater mitigation requirements (Low Impact Development) would be provided. In the event of heavy rainfall,



overflow runoff would be conveyed in a similar manner compared to existing drainage patterns (overland sheet flow onto adjacent roadways).

Compliance with the recommended mitigation, which requires the implementation of operational BMPs and compliance with the County's SUSMP, would reduce the volume of sediment-laden runoff discharging from the site. Therefore, project implementation would not substantially alter the existing drainage pattern of the site such that substantial erosion or siltation would occur.

Mitigation Measures: Refer to Mitigation Measures HWQ-1 through HWQ-4.

- d) ***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?***

Less Than Significant Impact. As stated above, once the project site is saturated, stormwater from the project site flows via sheet flow across the project site onto Sepulveda Boulevard at several locations. Stormwater catch basins are located within adjacent public right-of-ways. The proposed project would relocate an existing LACPW public catch basin located on Sepulveda Boulevard. The storm flow from the project would be designed to accommodate LACPW SUSMP requirements. Thus, the proposed project would not substantially alter the existing drainage pattern of the site, resulting in flooding on- or off-site.

Mitigation Measures: No mitigation is required.

- e) ***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?***

Less Than Significant Impact With Mitigation Incorporated. As discussed above, the proposed on-site storm drain system would be designed to handle runoff per LACPW SUSMP requirements. Any proposed connections to the existing public storm drain line owned and maintained by the Los Angeles County Flood Control District (LACFCD) would be designed to limit the discharge per LACFCD requirements. In addition, compliance with the County's Low Impact Development standards and implementation of BMPs would further minimize the amount of stormwater conveyed off-site, and mitigate polluted runoff from the project site. Los Angeles County Low Impact Development standards require the flow and volume generated from the 85th percentile 24-hour rainfall depth to be captured and treated onsite. Storm drain systems would be sized to capture, retain, and treat the runoff associated with an 85th percentile 24-hour rainfall through either infiltration, capture and reuse, or biofiltration planters. Implementation of Mitigation Measures HWQ-1 through HWQ-4 would reduce potential impacts to a less than significant level.

Mitigation Measures: Refer to Mitigation Measures HWQ-1 through HWQ-4.

- f) ***Otherwise substantially degrade water quality?***

Less Than Significant Impact With Mitigation Incorporated. The proposed project is not anticipated to result in water quality impacts other than the potential short-term construction and long-term operational impacts identified above in Responses 4.9(a), 4.9(c), and 4.9(e). Implementation of Mitigation Measures HWQ-1 through HWQ-4 would reduce potential impacts to a less than significant level.

Mitigation Measures: Refer to Mitigation Measures HWQ-1 through HWQ-4.



g) 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?

No Impact. According to the Federal Emergency Management Agency (FEMA) Map number 06037C1935F, the project site is situated within Zone X, which is outside of the 100-year flood hazard area.¹ Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As stated above in Response 4.9(g), the project site is not located within a 100-year flood hazard area. The proposed project would not impede or redirect flood flows. Thus, no impact would occur in this regard.

Mitigation Measures: No mitigation is required.

i) 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?

Less Than Significant Impact. As stated above, the project site is not located within a 100-year flood hazard area. According to the City of Carson's Standardized Emergency Management Plan (SEMS) Multi-Hazard Functional Plan, the City is not subject to inundation associated with dam failure.² Furthermore, there are no sources upstream that would result in site inundation as a result of flooding. Therefore, the proposed project would not expose people or structures to risk involving flooding. A less than significant impact would occur in this regard.

Mitigation Measures: No mitigation is required.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. Mudflows result from the downslope movement of soil and/or rock under the influence of gravity.

The project site is not located within proximity to any enclosed or semi-enclosed bodies of water; refer to Response 4.9(i). Additionally, the project site is not located within proximity to the ocean, and therefore would not be subject to tsunami impacts. The project site and surrounding area are relatively flat and the project site is not positioned downslope from an area of potential mudflow. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

¹ Federal Emergency Management Agency, *Flood Insurance Rate Map # 06037C1945F*, effective September 26, 2008.

² City of Carson, *Carson General Plan*, October 11, 2004.



4.10 LAND USE AND PLANNING

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. 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?			✓	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

a) *Physically divide an established community?*

No Impact. According to the *Carson General Plan* (General Plan), the project site is designated Mixed Use – Residential. The existing zoning is Mixed Use – Sepulveda Boulevard (MU-SB). The project site currently consists of vacant land and is surrounded by commercial and residential uses. The project proposes to re-designate the entire site as “Urban Residential” to replace the site’s existing designation. The proposed project would also require a zoning map amendment and zone change to designate the site as “Sepulveda and Panama Specific Plan”. Although the project proposes a General Plan Amendment, Zoning Map Amendment, and Zone Change for the proposed project, these proposed uses are similar to the existing Mixed Use – Residential designation for the site. Implementation of the project would not physically divide an established community. The project would be compatible with existing surrounding uses, which include residential uses. No impacts would result in this regard.

Mitigation Measures: No mitigation is required.

b) *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?*

Less Than Significant Impact.

Carson General Plan

The General Plan designates the project site as Mixed-Use – Residential. Development of the project site with the proposed mixed-use residential development would be generally consistent with the land uses anticipated by the General Plan. The Sepulveda and Panama Specific Plan has been prepared for the project to ensure consistency with the General Plan. Adoption of the Specific Plan would require a General Plan Amendment that would designate the project site as “Urban Residential” to replace the site’s existing Mixed-Use – Residential designation on the General Plan map. Table 4.10-1, Carson General Plan Policy Consistency Analysis, considers the General Plan policies that are applicable to the proposed General Plan Amendment. As described in Table 4.10-1, upon approval of the proposed General Plan Amendment, the proposed project would be consistent with the relevant applicable policies.



Table 4.10-1
Carson General Plan Policy Consistency Analysis

Goal/Policy	Project Consistency
Land Use Element	
Goal LU-5: Maximize the City's market potential in order to enhance and retain shopping and entertainment opportunities to serve the population, increase revenues to the City, and provide new employment opportunities.	Consistent. The project includes a commercial component that would allow for neighborhood-serving retail and/or restaurant uses.
Implementation Measure LU-IM-5.7: Use redevelopment tools to assemble land, assist development, and provide for on-going area improvement.	Consistent. The proposed project would implement this measure as it includes development on a currently vacant infill parcel along Sepulveda Boulevard and is surrounded by residential and commercial uses.
Implementation Measure LU-IM-5.8: Encourage specialty retail development to concentrate in targeted areas of the City to enable "critical mass" thresholds of such uses to be established.	Consistent. The proposed project and its planned mix of uses would contribute to specialty retail, establishing "critical mass" at an infill location.
Goal LU-6: A sustainable balance of residential and non-residential development and a balance of traffic circulation throughout the City.	Consistent. The project promotes a balanced mix of residential development and pedestrian-serving commercial uses. As contemplated by implementation measure LU-IM-6.5 and LU-IM-6.7, higher intensity residential development is appropriate within the project site. By facilitating a mixed-use development with housing and neighborhood-serving retail in close proximity to employment, the City seeks to reduce vehicle miles traveled (VMT) and promote walkability.
Policy LU-6.6: Attract land uses that generate revenue to the City of Carson, while maintaining a balance of other community needs such as housing, open space, and public facilities.	Consistent. The project's improved commercial facilities would generate increased revenues to the City while providing a balance of other community needs, including senior housing.
Implementation Measure LU-IM-6.7: Review carefully any zone change and/or General Plan Amendment to permit development or modify intensity. Factors to be considered include, but are not limited to: the maximum intensity allowed pursuant to the General Plan; circulation patterns; environmental constraints; and compatibility with surrounding land uses.	Consistent. The City's careful review of the project's requested General Plan Amendment and Sepulveda and Panama Specific Plan provide an opportunity for the City to increase density, and improve senior housing resources through a rigorous and thoughtful planning process, ensuring compatibility with surrounding land uses.
Goal LU-8: Promote mixed-use development where appropriate.	Consistent. The project would be proposed as part of the City's ongoing effort to monitor the success of mixed-use development.
Policy LU-8.1: Amend the Zoning Ordinance to provide for those Mixed-Use areas identified on the General Plan Land Use Plan.	Consistent. Through the City's careful review of the proposed Specific Plan, the Zoning Ordinance would be amended to allow a mixed-use project at the project site with access to public transit, and where allowing a higher and better mix of uses would be reasonable and beneficial to the City and its stakeholders.
Policy LU-8.3: Locate higher density residential uses in proximity to commercial centers in order to encourage pedestrian traffic and provide a consumer base for commercial uses.	Consistent. The project would encourage pedestrian traffic and would provide a consumer base for on- and off-site commercial uses.
Goal LU-9: Eliminate all evidence of property deterioration throughout Carson.	Consistent. While the vacant project site is not deteriorating, the development of the proposed project would avoid the potential for deterioration.



Table 4.10-1 (continued)
Carson General Plan Policy Consistency Analysis

Goal/Policy	Project Consistency	
Policy LU-12.1: Develop and implement a Citywide Urban Design Plan.	Consistent. The project's architecture and building and landscaping materials would help improve the design of the currently vacant project site.	
Goal LU-13: Encourage interesting and attractive streetscapes throughout Carson.	Consistent. The project site is located along the Sepulveda Boulevard corridor, which is a main arterial roadway that would benefit from the proposed streetscape improvements and landscaping treatments. Such improvements are detailed in the proposed Sepulveda and Panama Specific Plan and accompanying landscape architecture exhibits.	
Policy LU-13.1: Promote a rhythmic and ceremonial streetscape along the City's arterial roadways, continuing the use of landscaped medians.		
Policy LU-13.5: Continue to require landscaping treatment along any part of a building site which is visible from City streets.		
Goal LU-15: Promote development in Carson which reflects the "Livable Communities" concepts.		
Policy LU-15.1: Encourage the location of housing, jobs, shopping, services, and other activities within easy walking distance of each other.	<p>Consistent. The project helps further the implementation measures intended to advance the above policies by:</p> <ul style="list-style-type: none"> • Locating activities within easy walking distance of transit stops. • Providing senior housing. • Providing both public and private open space in the form of courtyards, community open space, community rooms, enhanced pedestrian-friendly streetscapes, and multiple recreation areas internal to the site. • Incorporating trees, landscaping, and lighting that promotes pedestrian and bicycle use into the streetscape design. <p>Cooperating with the implementation of project-specific and City-designed programs encouraging activities contributing to individual Wellness and active Livable Communities.</p>	
Policy LU-15.2: Maintain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live in Carson.		
Policy LU-15.4: Develop a center focus within the community that combines commercial, civic, cultural, and recreational uses.		
Policy LU-15.6: Ensure development of pedestrian-oriented improvements which provide better connections between and within all developments while reducing dependence on vehicle travel.		
Policy LU-15.7: Provide for the efficient use of water through the use of natural drainage, drought tolerant landscaping, and use of reclaimed water, efficient appliances and water conserving plumbing fixtures.		
Economic Development Element		
Goal Number 2: The assembly of land into parcels suitable for modern integrated development, with improved pedestrian and vehicular circulation, in the Consolidated Project Area.		Consistent. The project site's location is adjacent to other residential and commercial uses. The improvement of pedestrian and vehicular circulation both on- and off-site are key components of the project's design and implementation.
Goal Number 4: The strengthening of the economic base of the project area and the community by the installation of needed on-site or off-site improvements to stimulate new residential, commercial and industrial expansion, employment, and socio-economic growth.	Consistent. The project site is currently vacant and surrounded by existing development, which makes it targeted area for the expansion of the commercial base and a location appropriate for a mixed-use project, stimulating new residential and commercial expansion and providing basic resources for continued socio-economic growth in the City of Carson.	
Section 9.0 – Issues, Strategies, and Plan of Action		
9.1 Issue No. 1: Capture of Local Residential Market Demand within the City.	Consistent. The project would develop a currently vacant parcel along Sepulveda Boulevard with enhanced neighborhood-serving retail and dining resources. By providing new local serving commercial spaces, the project would help maximize the site's commercial opportunities, market potential, and provide new employment opportunities.	
Goal 2: Maximize the City's market potential in order to enhance and retain shopping and entertainment opportunities to serve the population, increase revenues to the City, and provide new employment opportunities.		



Table 4.10-1 (continued)
Carson General Plan Policy Consistency Analysis

Goal/Policy	Project Consistency
Policy 2.1: Continue to implement, and expand when necessary, strategies to market, attract, and/or retain retail commercial areas.	Consistent. The project would develop a vacant parcel and thus expand and enhance, the site's commercial uses, and would provide mixed-use efficiencies by bringing senior residences to the site. This mix of uses would create opportunities for greater spending through ease of access, improving the economic opportunities of all businesses, both on-site and nearby off-site locations.
9.3 Issue No. 3: Employment Opportunities and Development of the Labor Force.	Consistent. The project would replace the existing vacant site with enhanced neighborhood-serving commercial uses and senior dwelling units. The project would help maximize the site's commercial opportunities, market potential, and provide new employment opportunities.
Goal 4: Creation of employment opportunities and career advancement.	
Housing Element	
Goal 2: Maintenance and enhancement of neighborhood quality.	Consistent. The City's careful review of the proposed Specific Plan would ensure conformance with this policy. The project design is consistent with State and Regional sustainability standards.
Policy 2.7: Require excellence in the design of housing through the use of materials and colors, building treatments, landscaping, open space, parking, environmentally sensitive and sustainable building design.	
Goal 3: City shall seek to provide an adequate supply of housing for all economic segments of the City.	
Policy 3.2: Work to expand the resource of developable land by making underutilized land available for development.	Consistent. The project would develop the currently vacant site with senior housing and commercial uses, which furthers this Goal.
Safety Element	
Goal SAF-6: Strive to provide a safe place to live, work and play for Carson residents and visitors.	Consistent. The project Applicant would consult and collaborate with the City's safety policy makers and Sheriff's Department personnel to ensure that appropriately safe and secure building designs and procedures are implemented and executed. High risk conditions in both the public and private areas, such as dark alley and dark entrances, would be avoided by proper use of security lighting and landscape treatments that would not obstruct walkways and entrances.
Policy SAF-6.3 Develop standards and/or guidelines for new development and redevelopment with an emphasis on-site and building design, or Crime Prevention Through Design (CPTD), to minimize vulnerability to criminal activity.	
Noise Element	
Goal N-7: Incorporate noise considerations into land use planning decisions.	Consistent. Noise and any potential impacts associated with project construction and operations are analyzed in <u>Section 4.12, Noise</u> .
Policy N-7.1 Continue to incorporate noise assessments into the environmental review process, as needed.	
Goal N-8: Minimize noise impacts associated with residential uses in mixed-use development.	
Policy N-8.1 Require the design of mixed-use structures to incorporate techniques to prevent transfer of noise and vibration from the commercial to the residential uses.	Consistent. As noted above, noise and any potential impacts associated with project construction and operations are analyzed in <u>Section 4.12, Noise</u> . Based on the noise analysis, project related on- and off-site noise levels were determined to be within the City's ordinance requirements.



Table 4.10-1 (continued)
Carson General Plan Policy Consistency Analysis

Goal/Policy	Project Consistency
Air Quality Element	
Goal AQ-3: Increased use of alternate fuel vehicles.	Consistent. Consistent with the project’s emphasis on wellness in its design and operations, opportunities to aid and abet the use of alternative fuel vehicles and promote ridership on the local bus and metro rail lines would be implemented.
Policy AQ-3.1 Continue to promote the use of alternative clean fueled vehicles for personal and business use.	
Policy AQ-3.2 Continue to promote ridership on the Carson Circuit and Los Angeles County Metropolitan Transportation Authority (MTA) bus and metro rail lines.	

The current zoning and land use designations at the site limit development to 1.5 FAR (for residential or mixed-use developments) and no more than 33 residential dwelling units per acre. Height is also restricted to four stories and 55-feet. Within the Sepulveda and Panama Specific Plan, the proposed project provides for an urban edge along Sepulveda Boulevard, further defining it as a mixed-use corridor. Additionally, the higher density of the project would provide a buffer to the existing single family residences to the south and are consistent with the existing commercial uses along Sepulveda Boulevard. The proposed Sepulveda and Panama Specific Plan and Urban Residential land use designation would allow for modifications in:

- Density, at up to 65 dwelling units per acre;
- Floor Area Ratio, at up to 1.32 excluding the parking garage (1.85 including the parking garage);
- Building Height at up to 60 feet as measured according to Section 9191.058 of the *Carson Municipal Code* (Municipal Code); and
- Parking, allowing for a reduction in residential parking requirements in accordance with Senate Bill (SB) 1818.

The proposed project and Sepulveda and Panama Specific Plan would create the planning framework for a larger development envelope at the project site, contributing to a vibrant streetscape with a livable, pedestrian friendly district along a commercial corridor. Implementation of the proposed project would revitalize an underutilized/vacant parcel along Sepulveda Boulevard. The project proposes a mixed-use residential and commercial development on vacant land. The proposed project would be consistent with the land uses identified for the project site and would be consistent with the existing land use patterns (residential to the north and south, and commercial to the east and west).

Zoning Ordinance

The Carson Zoning Code and Map would also be amended by ordinance concurrent with adoption of the Sepulveda and Panama Specific Plan to ensure consistency. A “Sepulveda and Panama Specific Plan” zone replaces the site’s existing Mixed-Use Sepulveda Boulevard (MU-SB) zone. Where Carson zoning regulations and/or development standards are inconsistent with the Specific Plan, the Specific Plan standards and regulations would prevail. However, any issue not specifically addressed in the Specific Plan shall be subject to the general Zoning Code regulations.



Table 4.10-2
Carson Zoning Consistency Analysis

Development Standard	Existing Zoning: MU-SB	Sepulveda and Panama Specific Plan
Permitted Uses	As identified in Municipal Code Sections 9138.18.C (MU-SB).	Consistent. Those uses permitted in the MU-SB zone, as identified in Municipal Code Sections 9138.18.C and 9131.1 are permitted in the Sepulveda and Panama Specific Plan area.
Residential Density	Maximum residential density is 25 dwelling units per acre. If the residential units are affordable or for senior use per Municipal Code Section 9126.91, the maximum density is 33 dwelling units per acre.	Consistent. The maximum residential density is 54 dwelling units per acre. Any fractional amount equal or greater than one-half shall permit an additional dwelling unit.
Floor Area Ratio	<p>The maximum FAR residential or mixed-use is 1.5.</p> <p>The minimum floor area ratio for ground floor commercial uses within a mixed-use development is 0.15.</p> <p>The maximum floor area ratio for ground floor commercial uses within a mixed-use development is 0.7.</p> <p>Subterranean garages are not included in the FAR calculation.</p>	<p>Consistent. FAR is defined as the ratio of floor area to total (gross) lot area (inclusive of any required dedications, or public or private easement areas). The Specific Plan would limit the FAR to 1.32 excluding the parking garage (1.85 including the parking garage).</p> <p>The maximum above-grade gross floor area would be determined by multiplying the FAR by the total area of the Specific Plan area (i.e., 53,285 square feet).</p>
Building Height	<p>No commercial building or structure shall exceed a height of 30 feet.</p> <p>No residential or mixed-use building or structure shall have more than three stories, including a basement but excluding a cellar, nor shall it exceed a height of 45 feet, except for residential projects for affordable or senior households permitted in accordance with Municipal Code Section 9126.91 or projects that have an exceptional design.</p>	<p>Consistent. No structure within the Specific Plan area may exceed 60 feet in height as measured according to Section 9191.058 of the Municipal Code.</p> <p>There shall be no limit to the number of stories within the 60-foot height limit.</p>
Setbacks / Streetscape	<p>Front yard:</p> <ul style="list-style-type: none"> • Commercial/live/work: 5' • Residential: 5' • Commercial: 5' • 3rd Floor Residential: 10' <p>Side Yard:</p> <ul style="list-style-type: none"> • 1st and 2nd Floor Residential: 5' • 2nd Floor Commercial: 1", 3', or 5' • 3rd Floor Residential: 5 feet <p>Rear Yard:</p> <ul style="list-style-type: none"> • On-Grade Parking: 1" or 3' • 1st and 2nd floor commercial/live/work: 5' • 1st and 2nd floor residential 5' • 3rd floor: 10 feet 	<p>Consistent. The project would meet the minimum setbacks as required by the code. Building features and projections permitted within the setback area include: stoops, porches, planters, street furniture, canopies, and awnings. Upper level balconies may project 5 feet into the front and street side yards.</p>



Table 4.10-2 (continued)
Carson Zoning Consistency Analysis

Development Standard	Existing Zoning: MU-SB	Sepulveda and Panama Specific Plan
Parking	<p>Per Senate Bill (SB) 1818 Section 65915(p)(1), upon request of the developer, no City shall require a vehicular parking ratio, inclusive of handicapped and guest parking that exceeds the following ratios:</p> <ul style="list-style-type: none"> (A) Zero to one bedrooms: one onsite parking space. (B) Two to three bedrooms: two onsite parking spaces. (C) Four and more bedrooms: two and one-half parking spaces. <p>For offices, studios, retail sales and services and other general commercial activities not classified elsewhere, off-street parking of 1 space for each 300 square feet of gross floor area is required per Municipal Code Section 9162.1 (Parking Spaces Required). All commercial development shall provide bicycle parking for at least five percent of the total number of stalls in all parking areas per Municipal Code Section 9138.18.D.12 (Parking).</p>	<p>Consistent. The project proposes a total of 67 parking spaces and 8 bicycle parking spaces. This would include a total of 52 parking spaces for the residential component and 15 parking spaces for the commercial component. As the proposed project involves the development of an affordable senior residential/commercial mixed use development, the project would be granted a reduction in site development standards in the ratio of residential vehicular parking spaces per SB 1818 that would not exceed the following parking ratios outlined in Section 65915(p)(1). Therefore, the reduction in residential parking spaces of 52 parking spaces would not exceed the maximum allowed under SB 1818 of 72 parking spaces.</p> <p>Any issue that is not specifically addressed in the Specific Plan shall be subject to the general Zoning Code regulations and development standards. Parking shall be generally provided in accordance with Section 9138.18.D.12 of the Municipal Code. The proposed commercial uses as well as bicycle accommodations are expected to provide adequate parking to meet the Municipal Code Sections 9162.21 and 9138.18.D.12 parking requirements.</p>
Usable Open Space	<p>Recreational Open Space: at least 15 percent of the gross floor devoted to residential use of which 60 percent must be open to the sky.</p> <p>Private Open Space: 130 sf of private open space for all zero and one bedroom and 150 sf for each larger unit.</p> <p>Reduction may be authorized subject to Planning Commission review and approval of development plan.</p>	<p>Consistent. A project within the Specific Plan area shall provide, at a minimum, 86 square feet of private open space per dwelling unit:</p>

Parking

City of Carson Code Parking Requirements

The Municipal Code off-street parking requirements are set forth in Section 9162.21 (Parking Spaces Required) of the Municipal Code. Table 4.10-3, *Parking Summary* depicts the Municipal Code parking regulations as well as the parking spaces proposed for the project. Based on site plans, a total of 67 parking spaces and 8 bicycle parking spaces are planned to be provided to accommodate the proposed project. This would include a total of 52 parking spaces for the residential component and 15 parking spaces for the commercial component. Per Section 9138.18 [Mixed-Use – Sepulveda Boulevard (MU-SB)], deviations from the parking requirements may be authorized subject to



Planning Commission review and approval of development plan if the project includes affordable housing opportunities. The residential parking ratios being requested for approval by the City are detailed below under SB 1818. As shown in [Table 4.10-3](#), the remaining project land use component of the proposed commercial uses is expected to provide adequate parking to meet the Municipal Code parking requirements. In addition, the proposed uses are expected to provide adequate bicycle parking per Municipal Code parking requirements.

**Table 4.10-3
Parking Summary**

Land Use	Parking Ratio per Municipal Code or SB 1818	Proposed Uses (DU or SF)	Required Spaces	Proposed Spaces
Residential				
• 0-1 Bedrooms	1 onsite parking space	58	58	52 ¹
• 2-3 Bedrooms	2 onsite parking spaces	7	14	
• 4 and more Bedrooms	2.5 parking spaces	-	-	
Commercial	1 space for each 300 square feet of gross floor area	3,000	10	15
Total Vehicular Parking	--	--	87	67
Bicycle	5 percent of total parking spaces (87 parking spaces x 0.05 = 5)	-	5	8
Total Bicycle Parking			5	8
DU = dwelling unit; SF = square feet				
Notes:				
1. The reduction in residential parking spaces would be allowed as the proposed project would be granted an incentive or concession as described in SB 1818 Section 65915(b).				
Source: City of Carson, <i>Carson Municipal Code</i> , current through Ordinance 14-1541, passed September 2, 2014 and Senate Bill No. 1818, <i>Chapter 928</i> , approved September 29, 2004.				

Senate Bill 1818

Per SB 1818 Section 65915(b), the proposed project would be granted an incentive or concession described in SB 1818 Section 65915(d) when the applicant constructs a senior housing development. As the proposed project involves the development of an affordable senior residential/commercial mixed use development, the project would be granted a reduction in site development standards in the ratio of residential vehicular parking spaces that must not exceed the following parking ratios outlined in Section 65915(p)(1). Based on Section 65915(p)(1), the maximum allowed parking spaces would be 72 parking spaces; refer to [Table 4.10-3, Parking Summary](#). The project proposes 52 residential parking spaces. Therefore, the reduction in residential parking spaces of 52 parking spaces would not exceed the maximum allowed under SB 1818 of 72 parking spaces. Thus, with approval of the Sepulveda and Panama Specific Plan, the proposed project would not conflict with SB 1818 regarding residential parking spaces and the proposed residential uses is expected to provide adequate parking to meet SB 1818 requirements.

Mitigation Measures: No mitigation is required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As stated in Response 4.4(f), the project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved habitat conservation plan. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.



4.11 MINERAL RESOURCES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				✓

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. No known mineral resources occur in the project area.¹ The project site is highly disturbed and is located within an urbanized area. According to the *Carson General Plan EIR* (General Plan EIR), no known mineral recovery activities have occurred within the City, and/or on the project site. In addition, the project would not involve mineral recovery during long-term operations. Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. Refer to Response 4.11(a), above.

Mitigation Measures: No mitigation is required.

¹ U.S. Geological Survey, *California State Minerals Information website, 2009 Minerals Yearbook*, <http://minerals.usgs.gov/minerals/pubs/state/ca.html>, accessed March 12, 2015.



SEPULVEDA AND PANAMA MIXED USE PROJECT
Public Review Draft Initial Study/Mitigated Negative Declaration

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4.12 NOISE

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?		✓		
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			✓	
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓
f. 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?				✓

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air, and is characterized by both its amplitude and frequency (or pitch). The human ear does not hear all frequencies equally. In particular, the ear deemphasizes low and very high frequencies. To better approximate the sensitivity of human hearing, the A-weighted decibel scale (dBA) has been developed. On this scale, the human range of hearing extends from approximately three dBA to around 140 dBA.

Noise is generally defined as unwanted or excessive sound, which can vary in intensity by over one million times within the range of human hearing; therefore, a logarithmic scale, known as the decibel scale (dB), is used to quantify sound intensity. Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates (is reduced) at a rate between three dBA and 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. Hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of three dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance. Noise generated by stationary sources typically attenuates at a rate between 6 dBA and about 7.5 dBA per doubling of distance.

There are a number of metrics used to characterize community noise exposure, which fluctuate constantly over time. One such metric, the equivalent sound level (L_{eq}), represents a constant sound that, over the specified period, has the same sound energy as the time-varying sound. Noise exposure over a longer period of time is often evaluated based on the Day-Night Sound Level (L_{dn}). This is a measure of 24-hour noise levels that incorporates a 10-dBA penalty for sounds occurring between 10:00 p.m. and 7:00 a.m. The penalty is intended to reflect the increased human sensitivity to noises occurring during nighttime hours, particularly at times when people are sleeping and there are lower ambient noise conditions. Typical L_{dn} noise levels for light and medium density residential areas range from 55 dBA to 65 dBA.



Two of the primary factors that reduce levels of environmental sounds are increasing the distance between the sound source to the receiver and having intervening obstacles such as walls, buildings, or terrain features between the sound source and the receiver. Factors that act to increase the loudness of environmental sounds include moving the sound source closer to the receiver, sound enhancements caused by reflections, and focusing caused by various meteorological conditions.

STATE OF CALIFORNIA

The State Office of Planning and Research Noise Element Guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a land use compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the Community Noise Equivalent Level (CNEL).

CITY OF CARSON

General Plan

Applicable policies and standards governing environmental noise in the City of Carson are set forth in the Noise Element of the *Carson General Plan* (General Plan). The Noise Element is a comprehensive program to limit the exposure of the community to excessive noise levels. The Noise Element contains noise and land use compatibility standards for general planning/land use decisions. Table 4.12-1, Interior and Exterior Noise Standards, indicates standards and criteria that specify acceptable limits of noise for various land uses throughout Carson.

**Table 4.12-1
Interior and Exterior Standards**

Land Use Category	Uses	Interior (dBA CNEL)	Exterior (dBA CNEL/)
Residential	Single Family Duplex, Multiple Family	45-55	50-60
	Mobile Home	45	65
Commercial, Industrial, Institutional	Hotel, Motel, Transient Lodging	45	N/A
	Commercial Retail, Bank, Restaurant	55	N/A
	Office Building, Research and Development, Professional Offices, City Office Building	50	N/A
	Amphitheater, Concert Hall, Auditorium, Meeting Hall	45	N/A
	Gymnasium (Multipurpose)	50	N/A
	Sports Club	55	N/A
	Manufacturing, Warehousing, Wholesale, Utilities	65	N/A
	Movie Theaters	45	N/A
Institutional	Hospitals, Schools' Classrooms	45	65
	Church, Library	45	N/A
Open Space	Parks	N/A	65

Notes:

1. Indoor environmental including: bedrooms, living area, bathrooms, toilets, closets, corridors.
2. Outdoor environment limited to: private yard of single family, multi-family private patio or balcony which is served by a means of exit from inside the dwelling, balconies 6 feet deep or less are exempt, mobile home park, park's picnic area, school's playground.
3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of UBC.
4. Exterior noise levels should be such that interior noise levels will not exceed 45 CNEL.

Source: City of Carson, *Carson General Plan*, October 11, 2004.



Municipal Code

Section 4101 (Unnecessary Noises) of Chapter I, Article IV in the Carson Municipal Code, controls any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the community. Sections 4101(i) and 4101(j) of the Carson Municipal Code regulate noise from demolition and construction activities. These sections restrict non-emergency construction activity (including demolition) and repair work to the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday.

The City's Noise Control Ordinance (Section 5500 of the Carson Municipal Code) sets standards for noise levels citywide and provides the means to enforce the reduction of obnoxious or offensive noises. The noise sources enumerated in the Noise Ordinance include radios, phonographs, loudspeakers and amplifiers, electric motors or engines, animals, motor vehicles and construction equipment. The Noise Ordinance sets interior and exterior noise levels for all properties within designated noise zones, unless exempted, as shown in Table 4.12-2, Noise Ordinance Standards. In addition, for construction activities lasting more than 21 days, Section 5502(c) of the Noise Control Ordinance requires that construction activities be conducted in such a manner to ensure that the noise level at an affected single family residence not exceed 65 dBA between the hours of 7:00 a.m. and 8:00 p.m. daily except for Sundays and legal holidays, and 55 dBA between the hours of 8:00 p.m. and 7:00 a.m. on these same days. Enforcing the Noise Ordinance includes requiring proposed development projects to show compliance with the ordinance, and requiring construction activity to comply with established schedule limits. The ordinance will be reviewed periodically for adequacy and amended as needed to address community needs and development patterns.

Table 4.12-2
Noise Ordinance Standards

Noise Zone	Designate Noise Zone Land Use (Receptor Property)	Time Interval (dB)	Exterior Noise Level	Interior Noise Level
I	Noise Sensitive Area	Anytime	45	N/A
II	Residential Properties	10:00 p.m. to 7:00 a.m. (nighttime)	45	N/A
		7:00 a.m. to 10:00 p.m. (daytime)	50	N/A
III	Commercial Properties	10:00 p.m. to 7:00 a.m. (nighttime)	55	N/A
		7:00 a.m. to 10:00 p.m. (daytime)	60	N/A
IV	Industrial Properties	Anytime	70	N/A
All Zones	Multi-Family	10:00 p.m. – 7:00 a.m.	N/A	40
Open Space	Residential	7:00 a.m. – 10:00 p.m.	N/A	45

Source: City of Carson, *Carson General Plan*, October 11, 2004.

EXISTING STATIONARY SOURCES

The project area is highly urbanized, consisting of primarily commercial and residential uses. The primary sources of stationary noise in the project vicinity are urban-related activities (i.e., mechanical equipment, parking areas, and pedestrians). The noise associated with these sources may represent a single-event noise occurrence, short-term or long-term/continuous noise.

EXISTING MOBILE SOURCES

The majority of the existing noise in the project area is generated from vehicles traveling along Sepulveda Boulevard. As shown in Table 4.12-3, Existing Traffic Noise Levels, mobile noise sources in the vicinity of the project site range



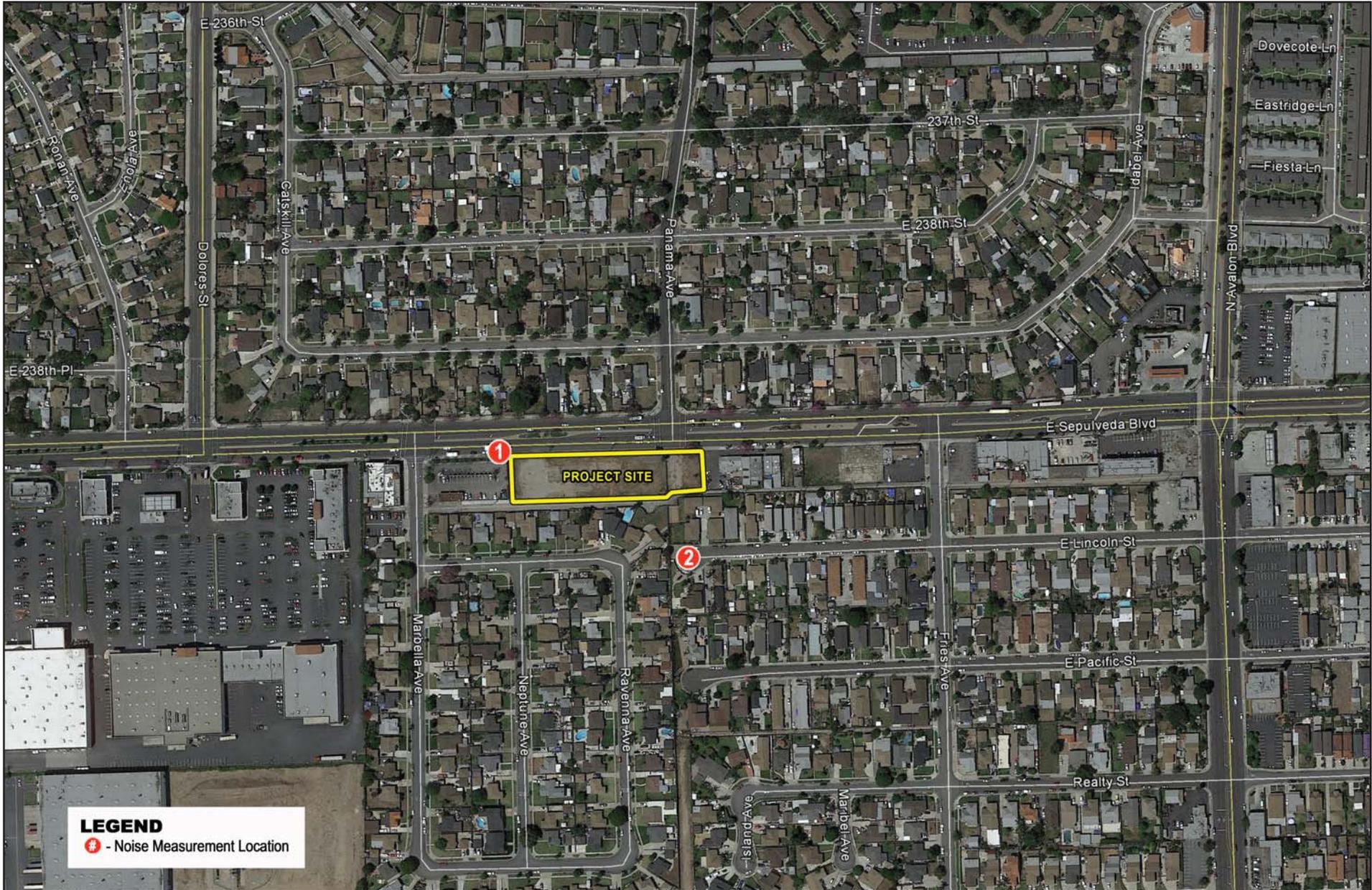
from 67.9 to 51.9 dBA. Mobile source noise was modeled using the Federal Highway Administration’s Highway Noise Prediction Model (FHWA RD-77-108), which incorporates several roadway and site parameters. The model does not account for ambient noise levels. Noise projections are based on modeled vehicular traffic as derived from the *Traffic Impact Study*. A 35 to 40 mile per hour average vehicle speed was assumed for existing conditions based on empirical observations and posted maximum speeds along the adjacent roadways. Average daily traffic estimates were obtained from the Traffic Impact Study.

**Table 4.12-3
Existing Traffic Noise Levels**

Roadway Segment	Existing Conditions				
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)		
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour
Sepulveda Boulevard					
West of Main St.	26,900	67.6	631	200	63
Main St. to Dolores St.	27,800	67.8	652	206	65
Dolores St. to Marbella Ave.	28,300	67.9	663	210	66
Marbella Ave. to Panama Blvd.	27,800	67.8	652	206	65
Panama Blvd. to Avalon Blvd.	26,500	67.6	621	196	62
East of Avalon Blvd.	20,800	66.5	487	154	49
Main Street					
North of Sepulveda Blvd.	17,700	65.9	415	131	42
South of Sepulveda Blvd.	19,700	66.3	462	146	46
Dolores Street					
North of Sepulveda Blvd.	6,000	59.9	103	33	10
Marbella Avenue					
South of Sepulveda Blvd.	1,900	51.9	16	5	2
Panama Boulevard					
North of Sepulveda Blvd.	2,900	53.8	25	8	2
Project Driveway					
South of Sepulveda Blvd.	-	-	-	-	-
Avalon Boulevard					
North of Sepulveda Blvd.	22,100	66.8	518	164	52
South of Sepulveda Blvd.	21,400	66.6	501	158	50
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level					
Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.					

NOISE MEASUREMENTS

In order to quantify existing ambient noise levels in the project area, RBF Consulting, a Michael Baker International Company (RBF Baker), conducted three short-term noise measurements on March 19, 2015; refer to [Table 4.12-4 Noise Measurements](#). The noise measurement sites were representative of typical existing noise exposure within and immediately adjacent to the project site. The ten-minute measurements were taken between 3:00 p.m. and 4:00 p.m. Short-term (L_{eq}) measurements are considered representative of the noise levels throughout the day and relate closely with the City’s noise standards.



Source: Google Earth, 2015.

NOT TO SCALE





**Table 4.12-4
Noise Measurements**

Site No.	Location	L _{eq} (dBA)	L _{min} (dBA)	L _{max} (dBA)	Peak (dBA)	Time
1	Along Sepulveda Boulevard, approximately 30 feet west of the project site boundary.	72.4	51.2	90.0	107.0	3:04 p.m.
2	East Lincoln Street, approximately 150 feet south of the project boundary.	53.8	45.0	66.1	92.0	3:30 p.m.

Source: RBF Baker, March 19, 2015.

It should be noted that the noise measurement for Site 1 was taken at the edge of the Sepulveda Boulevard right-of-way and monitored noise levels are influenced by traffic noise. Based on the project plans, sensitive future receptors would be set back from the Sepulveda Boulevard right-of-way and would be located on upper floors. Additionally, sensitive at the interior locations (i.e., facing the courtyard) would be shielded from traffic noise by the proposed building. Therefore, the noise measurements in Table 4.12-4 may not match up with other modeled noise levels in this analysis.

Meteorological conditions were clear skies, warm temperatures, with moderately light wind speeds (less than 5 miles per hour), and low humidity. Measured noise levels during the daytime measurements ranged from 53.8 to 72.4 dBA L_{eq}. Noise monitoring equipment used for the ambient noise survey consisted of a Brüel & Kjær Hand-held Analyzer Type 2250 equipped with a Type 4189 pre-polarized microphone. The monitoring equipment complies with applicable requirements of the American National Standards Institute (ANSI) for Type I (precision) sound level meters. The results of the field measurements are included in Appendix C, Noise Data. It should be noted that the traffic noise levels depicted in Table 4.12-4 may differ from modeled levels because they represent noise levels at different locations on the project site and are also reported in different noise metrics (e.g., noise measurements are the L_{eq} values and traffic noise levels are reported in CNEL).

a) *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?*

Less Than Significant Impact with Mitigation Incorporated. It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels, or based on studies of the ability of people to sleep, talk, or work under various noise conditions. However, all such studies recognize that individual responses vary considerably. Standards usually address the needs of the majority of the general population.

As stated above, the Carson Municipal Code and General Plan include some regulations controlling unnecessary, excessive, and annoying noise within the City. As outlined above, maximum noise levels are based on land use.

Short-Term Noise Impacts

Construction of the proposed project would occur over approximately 18 months and would include site preparation, grading, construction of the new mixed-use buildings, and the application of architectural coatings. Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial earthwork phases. These phases of construction have the potential to create the highest levels of noise. Typical noise levels generated by construction equipment are shown in Table 4.12-5, Maximum Noise Levels Generated by Construction Equipment. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of



equipment or the hydraulic movement of machinery lifts).

Sensitive receptors near the project site include surrounding residences to the north, south, and west, and Catskill Avenue Elementary School located approximately 0.25 miles north of the project site at 23536 Catskill Avenue. These sensitive uses may be exposed to elevated noise levels during project construction. The Carson Municipal Code has established allowable hours for demolition and construction activities (7:00 a.m. to 6:00 p.m. on weekdays and Saturdays; construction activities are not allowed on Sundays or legal holidays. For construction activities lasting more than 21 days, Section 5502(c) of the Noise Control Ordinance requires that construction activities be conducted in such a manner to ensure that the noise level at an affected single family residence not exceed 65 dBA between the hours of 7:00 a.m. and 8:00 p.m. daily, and 55 dBA between the hours of 8:00 p.m. and 7:00 a.m. on these same days. It should be noted that sensitive receptors are located along the southern boundary of the project site. Therefore, the proposed project would require sound attenuating barriers along the project site perimeter to comply with City requirements; refer to Mitigation Measures NOI-1 and NOI-2.

Noise source control is the most effective method of controlling construction noise. Source controls, which limit noise, are the easiest to oversee on a construction project. Mitigation at the source reduces the problem everywhere, not just along one single path or for one receiver. The specification of equipment noise limits forces the use of modern equipment having improved engine insulation and mufflers; refer to Mitigation Measure NOI-1. Implementation of Mitigation Measure NOI-1 also requires the designation of a “Noise Disturbance Coordinator,” construction haul routes, and orientation of stationary construction equipment away from nearby sensitive receivers, among other requirements.

Table 4.12-5
Maximum Noise Levels Generated by Construction Equipment

Type of Equipment	Acoustical Use Factor ¹	L _{max} at 50 Feet (dBA)
Concrete Saw	20	90
Crane	16	81
Concrete Mixer Truck	40	79
Backhoe	40	78
Dozer	40	82
Excavator	40	81
Forklift	40	78
Paver	50	77
Roller	20	80
Tractor	40	84
Water Truck	40	80
Grader	40	85
General Industrial Equipment	50	85
Note: 1. Acoustical Use Factor (percent): Estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.		
Source: Federal Highway Administration, <i>Roadway Construction Noise Model (FHWA-HEP-05-054)</i> , January 2006.		



Noise path controls are the second method in controlling noise. Barriers or enclosures can provide a substantial reduction in the nuisance effect in some cases. Path control measures include:

- Move equipment farther away from the receiver;
- Enclose especially noisy activities or stationary equipment;
- Erect noise enclosures, barriers, or curtains; and
- Use landscaping as a shield and dissipater.

Noise barriers or enclosures can provide a sound reduction 20 dBA or greater.¹ To be effective, a noise enclosure/barrier must physically fit in the available space, must completely break the line-of-sight between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source, and extend length-wise and vertically as far as feasibly possible to be most effective. If practical, noise barriers should be tall enough to provide noise reduction for the upper-most stories of nearby sensitive receptors, though this may not always be achievable with abutting multi-story buildings.

The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In these cases, the enclosure/barrier system must either be very tall or have some form of roofed enclosure to protect upper-story receptors.

Table 4.12-6, *Construction Average Noise Levels With Acoustical Treatments*, shows the average sound levels anticipated during each construction phase, as well as the effectiveness of a noise enclosure used on the project site. While the nearest sensitive receptor is located approximately 20 to the south of the project site, primary activity areas of heavy duty equipment would be at a distance of at least 25 feet or more. Therefore, a distance of 25 feet from construction noise sources to the nearest sensitive receptor is more representative of the proposed project's construction activities. As shown in Table 4.12-6, the grading and excavation phase would be the loudest at 92 dBA for a receiver 25 feet from the source. With the use of noise enclosures this noise level would be reduced to a maximum of 65 dBA at 25 feet. Additionally, at 50 feet from the project site, the maximum noise level with the use of noise enclosures would be 59 dBA. Construction activities would occur throughout the project site and would not be concentrated at the point closest to the sensitive receptors. Therefore, the noise levels at 25 feet depict the worst case scenario. It should be noted that construction activities would occur during daytime hours only.

Table 4.12-6
Construction Average Noise Levels With Acoustical Treatments

Construction Stage	Sound Level in dBA (L _{eq}) at Indicated Distance					
	25 Feet		50 Feet		100 Feet	
	Without Acoustical Treatment	With Acoustical Treatment ¹	Without Acoustical Treatment	With Acoustical Treatment ¹	Without Acoustical Treatment	With Acoustical Treatment ¹
Demolition	88	61	82	55	76	49
Grading/Excavation	92	65	86	59	80	53
Building (Foundations, Structural, Finishing)	83	56	77	50	71	44
1. Noise level attenuation from enclosures is based on a sound transmission class (STC) rating of 35, resulting in approximately a 27 dBA overall attenuation rate for construction noise.						
Source: Western Electro-Acoustic Laboratory, Inc., <i>Sound Transmission Loss Test No. TL96-186</i> , April 15, 1996.						

¹ Federal Highway Administration, *Effective Noise Control During Nighttime Construction*, 2006. http://ops.fhwa.dot.gov/wz/workshops/accessible/Schexnayder_paper.htm.



Noise barriers would be effective during the majority of construction activities. Sensitive uses surrounding the project site include single-family residential uses adjacent to the southern boundary of the project site, to the north of Sepulveda Boulevard, and to the west of Marbella Avenue. As stated above, noise sensitive receptors near the construction site may, at times, experience excessive noise levels from construction activities. However, construction activities lasting more than 21 days are to be conducted in such a manner to ensure that the noise level at an affected single family residence not exceed 65 dBA between the hours of 7:00 a.m. and 8:00 p.m. daily except for Sundays and legal holidays, and 55 dBA between the hours of 8:00 p.m. and 7:00 a.m. on these same days. Mitigation Measure NOI-2 requires the use of temporary noise barriers along the western and northern property lines to break the line of site between the construction equipment and the nearby sensitive receptors. Implementation of Mitigation Measures NOI-1 and NOI-2 as well as compliance with the Municipal Code requirements would reduce construction noise impacts to a less than significant level.

Operational Noise Sources

Off-Site Mobile Noise

Future development generated by the proposed project would result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the vicinity of existing and proposed land uses. According to the Traffic Impact Study, the proposed project would result in a net increase of 357 daily trips.

Existing With Project Conditions

Project area roadway segment noise levels for the “Existing” and “Existing With Project” scenarios were compared. According to [Table 4.12-7, *Existing With Project Traffic Noise Levels*](#), under the “Existing” scenario, noise levels at a distance of 100 feet from the centerline would range from approximately 67.9 to 51.9 dBA, with the highest noise levels occurring along Sepulveda Boulevard, between Dolores Street and Marbella Avenue. The “Existing With Project” scenario noise levels at a distance of 100 feet from the centerline would also range from approximately 67.9 dBA to 51.9 dBA, with the highest noise levels occurring along Sepulveda Boulevard, from Main Street to Panama Boulevard. Under the “Existing With Project” scenario, the highest noise level increase would occur along Sepulveda Boulevard (0.1 dBA increase to the west of Main Street, between Main Street and Dolores Street, and between Marbella Avenue and Panama Boulevard). However, as these noise level increases are below 3.0 dBA², a less than significant impact would occur in this regard.

² According to the California Department of Transportation’s Traffic Noise Analysis Protocol, dated May 2011, a 3.0 dB difference in noise level is generally the point at which the human ear will perceive a difference in noise level.



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Table 4.12-7
Existing With Project Traffic Noise Levels

Roadway Segment	Existing					Existing With Project					Difference In dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Sepulveda Boulevard											
West of Main St.	26,900	67.6	631	200	63	27,000	67.7	632	200	63	0.1
Main St. to Dolores St.	27,800	67.8	652	206	65	28,000	67.9	657	208	66	0.1
Dolores St. to Marbella Ave.	28,300	67.9	663	210	66	28,500	67.9	667	211	61	0.0
Marbella Ave. to Panama Blvd.	27,800	67.8	652	206	65	28,000	67.9	657	208	66	0.1
Panama Blvd. to Avalon Blvd.	26,500	67.6	621	196	62	26,600	67.6	624	197	62	0.0
East of Avalon Blvd.	20,800	66.5	487	154	49	20,900	66.5	490	155	49	0.0
Main Street											
North of Sepulveda Blvd.	17,700	65.9	415	131	42	17,700	65.9	415	131	42	0.0
South of Sepulveda Blvd.	19,700	66.3	462	146	46	19,800	66.3	464	147	46	0.0
Dolores Street											
North of Sepulveda Blvd.	6,000	59.9	103	33	10	6,000	59.9	103	33	10	0.0
Marbella Avenue											
South of Sepulveda Blvd.	1,900	51.9	16	5	2	1,900	51.9	16	5	2	0.0
Panama Boulevard											
North of Sepulveda Blvd.	2,900	53.8	25	8	2	2,900	53.8	25	8	2	0.0
Project Driveway¹											
South of Sepulveda Blvd.	-	-	-	-	-	400	45.2	3	1	0	0.0
Avalon Boulevard											
North of Sepulveda Blvd.	22,100	66.8	518	164	52	22,100	66.8	518	164	52	0.0
South of Sepulveda Blvd.	21,400	66.6	501	158	50	21,400	66.6	501	158	50	0.0
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level											
Note: ¹ The Project Driveway segment does not currently exist, and is included in the proposed project's site plan.											
Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.											

Future Condition

The “Future Year 2018 Without Project” and “Future Year 2018 With Project” scenarios were compared. According to Table 4.12-8, Future Traffic Noise Levels, under the “Future Year 2018 Without Project” scenario, noise levels would range from 68.0 to 51.9 dBA, with the highest noise levels occurring along Sepulveda Boulevard, from Main Street to Panama Boulevard. Under the “Future Year 2018 With Project” scenario, noise levels would range from 68.1 to 51.9 dBA, with the highest noise levels occurring along Sepulveda Boulevard, between Dolores Street and Marbella Avenue. Under the “Existing With Project” scenario, the highest noise level increase would occur along Sepulveda Boulevard (0.1 dBA increase between Dolores Street and Marbella Avenue) and along Panama



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Boulevard (0.1 dBA increase north of Sepulveda Boulevard). However, as these noise level increases are below 3.0 dBA, a less than significant impact would occur in this regard.

**Table 4.12-8
Future Traffic Noise Levels**

Roadway Segment	Future Year 2018 Without Project					Future Year 2018 With Project					Difference In dBA @ 100 Feet from Roadway
	ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			ADT	dBA @ 100 Feet from Roadway Centerline	Distance from Roadway Centerline to: (Feet)			
			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour			60 CNEL Noise Contour	65 CNEL Noise Contour	70 CNEL Noise Contour	
Sepulveda Boulevard											
West of Main St.	27,800	67.8	652	206	65	28,000	67.8	656	207	66	0.0
Main St. to Dolores St.	28,700	68.0	673	213	67	28,900	68.0	678	214	68	0.0
Dolores St. to Marbella Ave.	29,200	68.0	684	216	68	29,400	68.1	689	218	69	0.1
Marbella Ave. to Panama Blvd.	28,700	68.0	673	213	67	28,900	68.0	678	214	68	0.0
Panama Blvd. to Avalon Blvd.	27,400	67.7	643	203	64	27,500	67.7	644	204	64	0.0
East of Avalon Blvd.	21,500	66.7	503	159	50	21,600	66.7	506	160	51	0.0
Main Street											
North of Sepulveda Blvd.	18,000	65.9	422	133	42	18,000	65.9	422	133	42	0.0
South of Sepulveda Blvd.	20,000	66.4	469	148	47	20,100	66.4	471	149	47	0.0
Dolores Street											
North of Sepulveda Blvd.	6,100	60.0	105	33	10	6,100	60.0	105	33	10	0.0
Marbella Avenue											
South of Sepulveda Blvd.	1,900	51.9	16	5	2	1,900	51.9	16	5	2	0.0
Panama Boulevard											
North of Sepulveda Blvd.	2,900	53.8	25	8	2	3,000	53.9	26	8	3	0.1
Project Driveway¹											
South of Sepulveda Blvd.	-	-	-	-	-	400	45.2	3	1	0	-
Avalon Boulevard											
North of Sepulveda Blvd.	23,700	67.1	556	176	56	23,800	67.1	558	177	56	0.0
South of Sepulveda Blvd.	22,200	66.8	520	164	52	22,300	66.8	522	165	52	0.0
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level;											
Note: ¹ The Project Driveway segment does not currently exist, and is included in the proposed project's site plan.											
Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.											



Cumulative Mobile Source Impacts

A project's contribution to a cumulative traffic noise increase would be considered significant when the project exceeds both a combined effect exceeds perception level (i.e., auditory level increase) and incremental effects threshold. The following discusses the combined and incremental effects criteria:

Combined Effect. The cumulative with project noise level ("Future Year 2018 With Project") would cause a significant cumulative impact if a 3.0 dB increase over existing conditions occurs and the resulting noise level exceeds the applicable exterior standard at a sensitive use.

Although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. The following criteria have been utilized to evaluate the incremental effect of the cumulative noise increase.

**Table 4.12-9
Cumulative Noise Scenario**

Roadway Segment	Existing	Future Year 2017 Without Project	Future Year 2017 With Project	Combined Effects	Incremental Effects	Cumulatively Significant Impact?
	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	dBA @ 100 Feet from Roadway Centerline	Difference In dBA Between Existing and Future With Project	Difference In dBA Between Future Without Project and Future With Project	
Sepulveda Boulevard						
West of Main St.	67.6	67.8	67.8	0.2	0.0	No
Main St. to Dolores St.	67.8	68.0	68.0	0.2	0.0	No
Dolores St. to Marbella Ave.	67.9	68.0	68.1	0.2	0.1	No
Marbella Ave. to Panama Blvd.	67.8	68.0	68.0	0.2	0.0	No
Panama Blvd. to Avalon Blvd.	67.6	67.7	67.7	0.1	0.0	No
East of Avalon Blvd.	66.5	66.7	66.7	0.2	0.0	No
Main Street						
North of Sepulveda Blvd.	65.9	65.9	65.9	0.0	0.0	No
South of Sepulveda Blvd.	66.3	66.4	66.4	0.1	0.0	No
Dolores Street						
North of Sepulveda Blvd.	59.9	60.0	60.0	0.1	0.0	No
Marbella Avenue						
South of Sepulveda Blvd.	51.9	51.9	51.9	0.0	0.0	No
Panama Boulevard						
North of Sepulveda Blvd.	53.8	53.8	53.9	0.1	0.1	No
Project Driveway¹						
South of Sepulveda Blvd.	-	-	45.2	-	-	No
Avalon Boulevard						
North of Sepulveda Blvd.	66.8	67.1	67.1	0.3	0.0	No
South of Sepulveda Blvd.	66.6	66.8	66.8	0.2	0.0	No
ADT = average daily trips; dBA = A-weighted decibels; CNEL = community noise equivalent level;						
Note:						
1. The Project Driveway segment does not currently exist, and is included in the proposed project's site plan.						
Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.						



Incremental Effects. The “Future Year 2018 With Project” causes a 1.0 dBA increase in noise over the “Future Year 2018 Without Project” noise level.

A significant impact would result only if both the combined and incremental effects criteria have been exceeded. Noise by definition is a localized phenomenon, and reduces as distance from the source increases. Consequently, only the proposed project and growth due to occur in the project site’s general vicinity would contribute to cumulative noise impacts. Table 4.12-9, *Cumulative Noise Scenario*, lists the traffic noise effects along the affected roadway segment for “Existing,” “Future Year 2018 Without Project,” and “Future Year 2018 With Project,” conditions, including incremental and net cumulative impacts.

As indicated in Table 4.12-9, noise levels under the *Combined Effects* criterion would not exceed 3.0 dBA, and/or 1.0 dBA under the *Incremental Effect* criterion along any roadway segments. As such, a cumulative noise impact would not occur. Therefore, there would not be any roadway segments that would result in significant impacts, as they would not exceed both the combined and incremental effects criteria. Therefore, the proposed project, in combination with cumulative background traffic noise levels, would result in less than significant impacts.

On-Site Mobile Noise

The project proposes an affordable senior residential/commercial mixed-use development that includes 65 dwelling units on the project site. The future residents of the proposed senior residential units could be exposed to elevated noise levels from traffic noise along Sepulveda Boulevard. The Federal Highway Administration (FHWA) Traffic Noise Model version 2.5 (TNM 2.5) was used to evaluate traffic noise along Sepulveda Boulevard to the future on-site uses; refer to the TNM 2.5 outputs in Appendix C, *Noise Data*. Noise levels from typical daily traffic along Sepulveda Boulevard were modeled at a total of 26 receptor locations on the project site, including the two- to four-story residential uses, balcony areas, and common areas; refer to Exhibit 4.12-2, *Noise Modeling Locations*.

As noted in Table 4.12-1, the City does not have exterior noise standards for commercial, retail, and restaurant uses. The “Exterior” dBA CNEL/ L_{dn} noise standards for Residential Multiple-family are 50 to 60 dBA; refer to Table 4.12-1. The exterior noise levels were modeled using TNM 2.5. The anticipated exterior noise levels at the receptor locations on the first to fourth floors (multi-family residential units, balconies, and common areas) would range from 40.3 to 52.6 dBA, which would be less than the City’s 50 to 60 dBA CNEL standard for residential multiple-family; refer to Table 4.12-10, *Traffic Noise Modeling Results*. As exterior noise levels would not exceed the 60 dBA, interior noise levels would also be consistent with the City’s interior noise standard for multiple-family residential units of 45 to 55 dBA based on an outdoor-to-indoor attenuation rate of 20 dBA for standard construction.³ Therefore, traffic noise levels along Sepulveda Boulevard would not exceed the City’s noise standards at the future on-site residential uses. A less than significant impact would occur in this regard.

It should be noted that the traffic noise levels depicted in Table 4.12-10 differ from the measured levels depicted in Table 4.12-4 because they represent noise levels at different locations on the project site at the location of future outdoor exposure areas for the proposed project. Several modeled noise locations also do not directly face Sepulveda Boulevard and represent areas interior to the project site. Additionally, the modeled noise levels are also reported in different noise metrics (e.g., noise measurements are the L_{eq} values and traffic noise are reported in CNEL).

³ U.S. Department of Housing and Urban Development, *The Noise Guidebook*, March 2009, page 14.



Table 4.12-10
Traffic Noise Modeling Results

Receptor #	Exterior Noise Level (dBA CNEL/L _{dn}) ^{1, 2, 3}			
	Ground Level	Level 2	Level 3	Level 4
1	N/A	50.9	51.2	51.5
2	N/A	51.8	52.1	52.5
3	N/A	50.9	51.2	51.6
4	N/A	51.0	51.3	51.7
5	N/A	50.8	51.1	51.5
6	N/A	51.1	51.4	51.7
7	N/A	51.0	51.3	51.6
8	N/A	50.1	50.3	50.7
9	N/A	50.3	50.6	50.9
10	N/A	51.9	52.2	52.6
11	N/A	51.7	52.0	52.4
12	N/A	50.9	51.2	51.5
13	N/A	48.8	49.0	49.2
14	N/A	47.2	47.3	47.4
15	N/A	41.9	42.3	42.8
16	46.6	N/A	N/A	N/A
17	N/A	40.8	41.6	42.5
18	N/A	40.9	41.5	42.2
19	N/A	40.7	N/A	N/A
20	N/A	40.5	41.1	41.9
21	N/A	40.4	41.3	42.4
22	N/A	40.4	41.0	41.8
23	N/A	40.3	41.3	42.3
24	N/A	42.0	42.4	42.8
25	N/A	42.1	42.6	43.2
26	N/A	40.6	41.3	42.0

Notes:
 1. Noise levels were modeled using FHWA TNM 2.5
 2. There are no sensitive receptors on the first floor with the exception of the community garden area on the eastern portion of the project site.
 3. Receptors #16 and #19 represent the proposed project's common areas (community garden on the first floor and community open space on second floor.

Long-Term Stationary Noise Impacts

Upon project completion, noise in the project area would not significantly increase. The project proposes a mixed-use development with commercial and residential uses within a developed area. Stationary noise sources associated with the proposed project would include mechanical equipment, slow moving trucks, parking activities, outdoor activity areas, and pedestrian activity.

Mechanical Equipment

Typically, mechanical equipment noise is 55 dBA at 50 feet from the source. The nearest residential uses to the project site are the existing residents located approximately 15 feet south of the project site. Heating Ventilation and Air Conditioning (HVAC) units would be included on the roof of the structure, and would likely be located toward the center of the structure and be located behind a parapet. Thus, the proposed project would likely not result in additional noise impacts to nearby residents from HVAC units, and the nearest residents would not be directly exposed to substantial noise from on-site mechanical equipment. Impacts in this regard would be less than significant.



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Slow-Moving Trucks (Deliveries)

The proposed project includes a mixed-use development with residential and commercial/retail uses that would necessitate occasional truck delivery operations. Typically, a medium 2-axle truck used to make deliveries can generate a maximum noise level of 75 dBA at a distance of 50 feet. These are levels generated by a truck that is operated by an experienced “reasonable” driver with typically applied accelerations. Higher noise levels may be generated by the excessive application of power. Lower levels may be achieved, but would not be considered representative of a nominal truck operation. The commercial/retail use on the first floor would receive deliveries from light duty trucks. The enclosed parking garage would contain a truck loading area accessible from Sepulveda Boulevard, which would provide sufficient noise attenuation. As such, impacts resulting from truck delivery activities would be less than significant.

Parking Areas

Traffic associated with parking lots is typically not of sufficient volume to exceed community noise standards, which are based on a time-averaged scale such as the CNEL scale. However, the instantaneous maximum sound levels generated by a car door slamming, engine starting up and car pass-bys may be an annoyance to adjacent noise-sensitive receptors. Estimates of the maximum noise levels associated with some parking lot activities are presented in [Table 4.12-11, *Typical Noise Levels Generated by Parking Lots*](#). Conversations in parking areas may also be an annoyance to adjacent sensitive receptors. Sound levels of speech typically range from 33 dBA at 48 feet for normal speech to 50 dBA at 50 feet for very loud speech.

**Table 4.12-11
Typical Noise Levels Generated by Parking Lots**

Noise Source	Maximum Noise Levels at 50 Feet from Source
Car door slamming	63 dBA L_{eq}
Car starting	60 dBA L_{eq}
Car idling	61 dBA L_{eq}

Impacts associated with parking would be considered minimal since the parking area would be within an enclosed parking garage on the first floor. It should be noted that parking lot noise are instantaneous noise levels compared to noise standards in the CNEL scale, which are averaged over time. As a result, actual noise levels over time resulting from parking lot activities would be far lower than what is identified in [Table 4.12-10](#). Parking lot noise would also be partially masked by background noise from traffic along Sepulveda Boulevard. The parking garage would be located below the proposed residential dwelling units. Therefore, there would not be a direct line of sight between the parking area and any sensitive receptors and any parking related noise would be attenuated and not perceived by sensitive receptors. Therefore, the proposed parking would not result in substantially greater noise levels than currently exist in the vicinity. Noise associated with parking lot activities is not anticipated to exceed the City’s Noise Standards or the California Land Use Compatibility Standards during operation. Therefore, noise impacts from parking lots would be less than significant.

Outdoor Activity Areas/Common Area Noise

The proposed project includes an open space/common activity area for on-site residents and commercial users. This area has the potential to be accessed by groups of people intermittently for frequent commercial shopping, dining, outdoor events, parties, etc. Noise generated by groups of people (i.e., crowds) is dependent on several factors including vocal effort, impulsiveness, and the random orientation of the crowd members. Crowd noise is estimated at



60 dBA at one meter (3.28 feet) away for raised normal speaking.⁴ This noise level would have a +5 dBA adjustment for the impulsiveness of the noise source, and a -3 dBA adjustment for the random orientation of the crowd members.⁵ Therefore, crowd noise would be approximately 62 dBA at one meter from the source. Noise has a decay rate due to distance attenuation, which is calculated based on the Inverse Square Law. Based upon the Inverse Square Law, sound levels decrease by 6 dBA for each doubling of distance from the source.⁶ As a result, crowd noise would be 56.0 dBA at 6.56 feet and 52.3 dBA at 10 feet, which would not exceed the City's noise standards, and/or the ambient noise levels in the area immediately surrounding the project site of 72.4 dBA (along Sepulveda Boulevard); refer to [Table 4.12-4](#). As such, the introduction of the proposed open space/common activity area on the project site would not introduce an intrusive noise source over existing conditions. Thus, a less than significant impact would occur in this regards

Mitigation Measures:

NOI-1 Prior to Grading Permit issuance, the Project Applicant shall demonstrate, to the satisfaction of the Carson Planning Division that the project complies with the following:

- Construction contracts specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices.
- A sign, legible at a distance of 50 feet shall also be posted at the project construction site. All notices and signs shall be reviewed and approved by the City of Carson Planning Division, prior to mailing or posting and shall indicate the dates and duration of construction activities, as well as provide a contact name and a telephone number where residents can inquire about the construction process and register complaints.
- The Project Applicant shall provide, to the satisfaction of the City of Carson Planning Division, a qualified "Noise Disturbance Coordinator." The Disturbance Coordinator shall be responsible for responding to any local complaints about construction noise. When a complaint is received, the Disturbance Coordinator shall notify the City within 24 hours of the complaint and determine the cause of the noise complaint (e.g., starting too early, malfunctioning muffler, etc.) and shall implement reasonable measures to resolve the complaint, as deemed acceptable by the Carson Planning Division. All signs posted at the construction site shall include the contact name and the telephone number for the Noise Disturbance Coordinator.
- Prior to issuance of any Grading or Building Permit, the Project Applicant shall demonstrate to the satisfaction of the City's Building Official that construction noise reduction methods shall be used where feasible. These reduction methods include shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and electric air compressors and similar power tools.
- Construction haul routes shall be designed to avoid noise sensitive uses (e.g., residences, convalescent homes, etc.), to the extent feasible.

⁴ M.J. Hayne, et al, *Prediction of Crowd Noise*, Acoustics, November 2006.

⁵ *Ibid.*

⁶ Cyril M. Harris, *Noise Control in Buildings*, 1994.



- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Per the Carson Municipal Code, construction shall be limited to the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday, and Saturdays. In addition, for construction activities lasting more than 21 days, Section 5502(c) of the Noise Control Ordinance requires that construction activities be conducted in such a manner to ensure that the noise level at an affected single family residence not exceed 65 dBA between the hours of 7:00 a.m. and 8:00 p.m., and 55 dBA between the hours of 8:00 p.m. and 7:00 a.m. daily. Construction is not permitted on Sundays or legal holidays.

NOI-2 In order to reduce construction noise per Section 5502(c) of the Noise Control Ordinance, during the site preparation and grading/excavation phases, the proposed project shall use a temporary noise barrier or enclosure along the southern property line to break the line of site between the construction equipment and the adjacent residences. The temporary noise barrier shall have a sound transmission class (STC) of 35 or greater in accordance with American Society for Testing and Materials Test Method E90, or at least two pounds per square foot to ensure adequate transmission loss characteristics. In order to achieve this, the barrier may consist of steel tubular framing, welded joints, a layer of 18-ounce tarp, a two-inch thick fiberglass blanket, a half-inch thick weatherwood asphalt sheathing, and 7/16-inch sturdy board siding. In addition, to avoid objectionable noise reflections, the source side of the noise barrier shall be lined with an acoustic absorption material meeting a noise reduction coefficient rating of 0.70 or greater in accordance with American Society for Testing and Materials Test Method C423.

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less Than Significant Impact. Project construction can generate varying degrees of ground-borne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.20 inch/second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Typical vibration produced by construction equipment is illustrated in Table 4.12-12, Typical Vibration Levels for Construction Equipment.

Ground-borne vibration decreases rapidly with distance. As indicated in Table 4.12-12, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.003 to 0.089 inch-per-second peak particle velocity (PPV) at 25 feet from the source of activity. The nearest sensitive receptors (residential uses to the south) are located approximately 15 feet from the project boundary. However, as stated above, primary activity areas of heavy duty equipment would be at a distance of at least 25 feet or more. It should be noted that project construction would include the use of bulldozers and loaded trucks, but would not include pile driving. As noted in Table 4.12-12, vibration from construction activities



experienced at the nearest sensitive receptors (residences to the south) would be below the 0.20 inch-per-second PPV significance threshold. Thus, a less than significant impact would occur in this regard

Table 4.12-12
Typical Vibration Levels for Construction Equipment

Equipment ¹	Approximate peak particle velocity at 25 feet (inches/second) ²
Large bulldozer	0.089
Loaded trucks	0.076
Small bulldozer	0.003
Jackhammer	0.035
Notes: 1. Project construction would not include pile driving. Concrete piles would be cast in place. 2. Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Guidelines</i> , May 2006. Table 12-2. 3. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$ where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance PPV (ref) = the reference vibration level in in/sec from Table 12-2 of the FTA <i>Transit Noise and Vibration Impact Assessment Guidelines</i> D = the distance from the equipment to the receiver	

Mitigation Measures: No mitigation is required.

- c) ***A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?***

Less Than Significant Impact. Refer to Response 4.12(a) above.

Mitigation Measures: No mitigation is required.

- d) ***Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above the levels existing without the project?***

Less Than Significant Impact. Refer to Responses 4.12(a) and 4.12(b), above.

Mitigation Measures: No mitigation is required.

- e) ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

No Impact. The project is not located within an airport land use plan and there are no public or private airports or airstrips within two mile of the project site. The Torrance Municipal Airport is located approximately 3.5 miles from the project site at 3301 Airport Drive in the City of Torrance. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.



- f) *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?*

No Impact. Refer to Response 4.12(e).

Mitigation Measures: No mitigation is required.



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4.13 POPULATION AND HOUSING

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			✓	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				✓

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Less Than Significant Impact. The proposed project is not anticipated to induce substantial population growth in the area, either directly or indirectly. Based on two persons per one bedroom senior unit and four persons per two bedroom senior unit, development of 65 units (58 one bedroom and seven two bedroom units) could potentially result in a population increase of 144 persons. However, it should be noted that this ratio considers maximum capacity for all units. In addition, the project proposes new employment-generating land uses, which could induce direct population growth in the area. As indicated in Table 2-2, Proposed Project, the approximately 3,000 square feet of commercial land uses proposed by the project are forecast to create only seven new jobs and future employees within the project area.¹ The potential population growth associated with the project would represent approximately 0.16 percent of the City’s current population of 92,636 persons.²

Potential growth-inducing impacts are also assessed based on a project’s consistency with adopted plans that have addressed growth management from a local and regional standpoint. SCAG’s growth forecasts estimate the City’s population to reach 106,000 persons by 2035, representing an increase of 13,364 persons between 2014 and 2035.³ The project’s total population generation (1,366 persons) represents approximately 10.22 percent of the anticipated 2035 population growth anticipated for the City. SCAG’s regional growth projections are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction. According to the Carson *General Plan* (General Plan), the project site is designated Mixed-Use – Residential. The existing zoning is and Mixed-Use – Sepulveda Boulevard (MU-SB). Although implementation of the proposed project would require a General Plan Amendment to designate the entire site as “Urban Residential”, and require a zoning map amendment and zone change to designate the site as “Sepulveda and Panama Specific Plan”, these proposed uses are similar to the existing Mixed-Use Sepulveda Boulevard designation for the site. The “Urban Residential” designation provides for multiple dwelling units and a range of commercial uses, including retail, offices, hospitals, and private community

¹ Based upon the employment factor of 424 square feet per employee for Other Retail/Service per Southern California Association of Governments Website, *Employment Density Study Summary Report*, October 31, 2001, Page 4. http://www.scag.ca.gov/pdfs/Employment_Density_Study.pdf, accessed March 12, 2015.

² *Ibid.*

³ Southern California Association of Governments, *2012 Adopted Growth Forecast*, <http://www.scag.ca.gov/forecast/>, accessed March 12, 2015.



gathering facilities. The proposed Sepulveda and Panama Specific Plan and Urban Residential land use designation would allow for modifications in:

- Density, at up to 65 dwelling units per acre;
- Floor Area Ratio, at up to 1.32 excluding the parking garage (1.85 including the parking garage);
- Building Height, at up to 60 feet as measured according to Section 9191.058 of the Carson Municipal Code; and
- Parking, allowing for a reduction in residential parking requirements in accordance with Senate Bill (SB) 1818.

Although the project would result in increased development, density, and intensity, and reduced residential parking above what is currently allowed for the site, the project proposes infill development in an urbanized area served by existing roads and infrastructure. Project implementation would not require extension of public infrastructure (i.e., any transportation facility or public utility), or provision of new public services. The roads providing direct access to the project site are improved. Public utilities would be extended to the site from existing facilities located adjacent to the site without the need for expansion of capacity. Additionally, public services are provided throughout the City and the establishment of new sources of service would not be required. Therefore, project implementation would not induce indirect population growth in the City through extension of roads or other infrastructure, or provision of new services. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The project site is currently comprised of vacant disturbed land. No housing exists on the project site. Therefore, the proposed mixed-use development would not displace any existing housing or necessitating the construction of replacement housing elsewhere. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

No Impact. Refer to Response 4.13(b).

Mitigation Measures: No mitigation is required.



4.14 PUBLIC SERVICES

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project 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 any of the public services:				
1) Fire protection?			✓	
2) Police protection?			✓	
3) Schools?			✓	
4) Parks?			✓	
5) Other public facilities?				✓

a) ***Would the project 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 any of the public services:***

1) ***Fire protection?***

Less Than Significant Impact. The County of Los Angeles Fire Department (LACFD) provides fire protection services to the City and proposed project site. There are six primary fire stations that provide both fire and emergency medical to the City, with four of the stations located within Carson’s boundaries. The project site is within the service area of LACFD Battalion 7, which provides fire and rescue services and safe haven services. The nearest fire station is the Fire Station #36 (located at 127 W. 223rd Street) which is located approximately 1.2-mile northwest of the project site. The LACFD uses national guidelines of a 5-minute response time for the 1st-arriving unit for fire and Emergency Medical Services (EMS) responses and 8 minutes for the advanced life support (paramedic) unit in urban areas. During 2014, the LACFD confirmed Fire Station #36 is meeting established response times with an emergency response of 4.58 minutes.¹ According to the *Carson General Plan* (General Plan), each of the primary fire stations established an expanded response matrix for its individual jurisdiction, which increases the resources available to help a fire station respond to an emergency. Table 4.14-1, Fire Station Response Times, shows the number of incidents and the average response time for each category of fire calls.

¹ Written Communication, Loretta Bagwell, Planning Analyst, Los Angeles County Fire Department Planning Division, March 18, 2015.



Table 4.14-1
Fire Station Response Times

Type of Fire Call	Number of Incidents	Average Response Time (minutes)
Emergency Medical Service	1,047	4.7
Fire	81	5.0
Hazardous Materials	78	5.0
Other	377	5.4
Total	1,583	4.9
Source: City of Carson, <i>Carson General Plan</i> , October 11, 2004.		

Implementation of the proposed project could potentially result in additional demand for fire protection and emergency medical services beyond existing conditions. However, implementation of the proposed project would be consistent with the land uses anticipated for the area and would not result in a substantial increase in demand on fire services provided by LACFD. The proposed project would be required to comply with LACFD requirements for emergency access, fire flow, fire protection standards, fire lanes, and other site design/building standards. Additionally, all future development within the project area would be subject to compliance with the existing regulations specified in the 2013 California Fire Code, 2013 California Building Code, 2012 International Fire Code, *Carson Municipal Code* (Municipal Code) Chapter 1, *Fire Prevention* and specific fire and life safety requirements addressed at building fire plan check. Adherence to these existing regulations would ensure project impacts are less than significant. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

2) Police protection?

Less Than Significant Impact. The Los Angeles County Sheriff's Department (LASD) provides police protection services to the City and the project site. The project site is within the service area of the LASD Carson Station, which provides police services to the City of Carson, and unincorporated County areas in Gardena, Torrance, and Rancho Dominguez. The proposed project would be served by the Carson station located at 21356 South Avalon Boulevard, approximately 1.83 miles northeast of the project site. According to the *Carson General Plan EIR* (General Plan EIR), police response times are categorized into three categories: emergent response (a call which requires a code-3 response), immediate response (a call which requires a prompt non code-3 response), and routine response (a call of a non-emergent nature). Table 4.14-2, *Police Response Times*, depicts the target and current response time for each category.

Table 4.14-2
Police Response Times

Type of Police Call	Response Times (minutes)	
	Target	Current
Emergent	60	30
Priority	20	7
Routine	5	3
Source: Telephone Communication, Romeo Pascua, Risk Management, Los Angeles County Sheriff Department, March 12, 2015.		



As shown in Table 4.14-2, the LASD confirmed that current response times are meeting established target response times.

Implementation of the proposed project would introduce additional residents and employees to the area, which would incrementally increase the demand for police services. Although the proposed project would introduce additional residents and employees to the area, it is not anticipated that this increase would have the capability to result in a substantial adverse impact to police services or require the need for new or additional police facilities. Implementation of the proposed project would be consistent with the land uses anticipated for the area and would not result in a substantial increase in demand on police services provided by LASD. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

3) **Schools?**

Less Than Significant Impact. The City of Carson provides school services from the Los Angeles School District (LAUSD). The project site is located within the LAUSD, (served by Catskill Avenue Elementary School [located at 23536 Catskill Avenue, Carson], Broad Avenue Elementary School [located at 24815 Broad Avenue, Wilmington], Wilmington Middle School [located at 1700 Gulf Avenue, Wilmington], and Phineas Banning Senior High School [located at 1527 Lakme Avenue, Wilmington]).² The project includes the development of 65 senior housing units, which could generate additional students within the project area. Although the project would result in an increased demand for school services, the project would be subject to development fees from LAUSD against residential and commercial development to reduce impacts resulting from the potential increase in demand for school related services. Additionally, the project would be required to comply with Assembly Bill (AB) 2926 and Senate Bill (SB) 50 requirements, which allow school districts to collect impact fees from developers of new residential projects. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.” Thus, upon payment of required fees by the project Applicant consistent with existing LAUSD and State requirements, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

4) **Parks?**

Less Than Significant Impact. The City of Carson has approximately 315 acres of parkland, including County facilities, excluding public school athletic fields or commercial recreational facilities. The City currently operates and maintains 17 parks within the City. The closest park facilities to the project site are Scott Park, located approximately 0.37-mile to the north, and Carriage Crest Park, located approximately 0.78-mile to the west. The project includes the development of 65 senior housing units, which could result in approximately 144 residents at the project site.³ An increase in demand for parkland from the proposed project could be expected. The project incorporates community space areas such as a community room, community gardens, outdoor seating, theater area, podium gardens, and park area for residents, employees and for the public.

According to the Municipal Code Section 9207.19 *Park and Recreational Facilities*, the amount of park dedication required in the city is approximately 3.0 acres per 1,000 residents. The population increase of 144 persons from project implementation could result in an increased demand for parks. According to the General Plan EIR, as the population of the City increases and more development occurs, the City may obtain parkland through parkland dedication requirements, specific plans, parkland lease arrangements, assessment districts, developer land

² Los Angeles Unified School District, *Find a School*, <http://notebook.lausd.net/schoolsearch/selectors.jsp>, accessed March 25, 2015.

³ Refer to Section 4.13, Population and Housing.



dedications and exactions and local assistance grants. In addition, the project Applicant would be required to pay applicable development impact fees per Section 9207.19 of the Municipal Code. Thus, upon payment of required fees by the project Applicant consistent with the Municipal Code would not result in substantial adverse physical impacts associated with the need for new or physically altered park facilities and impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

5) Other public facilities?

No Impact. Other public services that could potentially be impacted by the proposed project include public libraries. The project site is served by the Carson Library, located at 151 East Carson Street and Dr. Martin Luther King, Jr. Library (formerly known as Victoria Park Library), located at 17906 South Avalon Boulevard. Implementation of the proposed project would involve the construction of a new senior residential/commercial mixed-use development (a net increase of 65 dwelling units or 144 persons), which could result in an increase in the use of the City's public library services. However, as described in Response 4.13(b), the proposed project would result in a citywide population increase of approximately 0.16 percent. This increase in population would have a minimal impact on public library services. In addition, General Plan policies shall be formulated to meet identified needs and address the need for additional library facilities and materials in conjunction with the Los Angeles County Library. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.



4.15 RECREATION

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?			✓	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

- a) ***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?***

Less Than Significant Impact. Refer to Response 4.14(a)(4). According to the *Carson General Plan* (General Plan), there is a total of 315 acres of parkland, including County facilities, excluding public school athletic fields or commercial recreational facilities. The potential population increase associated with the project is approximately 144 persons.¹ Section 9207.19 of the *Carson Municipal Code* (Municipal Code) identifies a parkland standard of 3.0 acres per 1,000 residents.² The project proposes a community room and various open space amenities (community gardens, outdoor seating/theater, flexible open space, and courtyards). However, the proposed project would pay an in-lieu fee for the dedication/expansion of park facilities within the City due to the increase in demand for park facilities. Payment of the in-lieu fee for park facilities would ensure that adequate recreational facilities exist within the site vicinity. As such, payment of this fee would result in a less than significant impact.

Mitigation Measures: No mitigation is required.

- b) ***Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***

Less Than Significant Impact. The proposed project does not include recreational facilities or require the construction or expansion of recreational facilities. No impacts to recreation beyond those described in Response 4.14(a)(4) are anticipated. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

¹ Refer to Section 4.13, *Population and Housing*.

² Refer to Municipal Code Section 9207.19(d) which states where private recreational space is provided in a proposed planned development, stock cooperative, or community apartment project as defined in Sections 11003, 11003.2 and 11004, respectively, of the Business and Professions Code, or in a condominium project as defined in Section 783 of the Civil Code, such private recreational space may be a credit against the dedication of land required by Section 9207.19(b).



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4.16 TRANSPORTATION/TRAFFIC

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?		✓		
b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			✓	
c. 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?				✓
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
e. Result in inadequate emergency access?			✓	
f. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			✓	

This section is based upon the *Sepulveda Panama Mixed-Use Project Traffic Impact Analysis* (Traffic Impact Analysis) prepared by RBF Consulting, a Michael Baker International Company (RBF Baker) (dated March 25, 2015); refer to [Appendix D, Traffic Impact Analysis](#). The purpose of the Traffic Impact Analysis is to evaluate potential project impacts related to traffic and circulation in the vicinity of the project site. The evaluation considers impacts on local intersections and regional transportation facilities. The following analysis scenarios are evaluated in this section:

- Existing Conditions;
- Existing With Project Conditions;
- Future Year 2018 Without Project Conditions; and
- Future Year 2018 With Project Conditions.

The Traffic Impact Analysis follows the City of Carson traffic study guidelines and is consistent with the traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program.¹

¹ Los Angeles County Metropolitan Transportation Authority, *2010 Congestion Management Program*, October 2010.



STUDY AREA

The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the proposed project as defined by the Lead Agency. In traffic engineering practice, the study area generally includes those intersections that are immediately adjacent or in close proximity to the project site; in the vicinity of the project site that are documented to have current or projected future adverse operational issues; and in the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections).

The Traffic Impact Analysis considered the following 5 intersections as identified within Table 4.16-1, Study Intersections.

**Table 4.16-1
Study Intersections**

Intersection #	Study Intersection
1	Main Street/Sepulveda Boulevard
2	Dolores Street/Sepulveda Boulevard
3	Marbella Avenue/Sepulveda Boulevard
4	Panama Avenue/Sepulveda Boulevard
5	Avalon Boulevard/Sepulveda Boulevard

Source: RBF Baker, *Sepulveda Panama Mixed-Use Project Traffic Impact Analysis*, March 25, 2015.

INTERSECTION ANALYSIS METHODOLOGY

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the capacity of the intersection and the volume of traffic using the intersection. The Intersection Capacity Utilization (ICU) analysis methodology is utilized to determine the operating LOS of the signalized intersections. For unsignalized intersections, the Highway Capacity Manual (HCM) analysis methodology is utilized to determine the traffic operations.

Intersection Capacity Utilization Method for Signalized Intersection

The signalized intersections are analyzed using the ICU method. The ICU technique estimates the volume-to-capacity (V/C) ratio for an intersection based on the individual V/C ratios for the conflicting traffic movements. The ICU value represents the percent signal green time or capacity of the intersection movements. It should be noted that the ICU method assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through and right-turn lanes, and a dual left-turn capacity of 2,560 vph. A 5 percent clearance interval is included in the analysis calculations based on City of Carson requirements.

The ICU value translates to a LOS estimate, which is a relative measure of the intersection performance. The grade scales of LOS have been defined with the corresponding ICU value range as shown in Table 4.16-2, Level of Service for Signalized Intersections. The ICU value is the sum of the critical V/C ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.



Table 4.16-2
Level of Service for Signalized Intersections

Level of Service	Intersection Capacity Utilization (ICU)	
	Volume/Capacity (V/C)	Description
A	≤ 0.60	Excellent
B	0.61 to ≤ 0.70	Very Good
C	0.71 to ≤ 0.80	Good
D	0.81 to ≤ 0.90	Fair
E	0.91 to ≤ 1.00	Poor
F	> 1.00	Failure

Highway Capacity Manual Method for Unsignalized Intersection

The 2000 HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle for unsignalized intersections shown in Table 4.16-3, Level of Service for Unsignalized Intersections.

Table 4.16-3
Level of Service for Unsignalized Intersections

Level of Service	Highway Capacity Manual (HCM)	
	Delay (seconds/vehicle)	Description
A	≤ 10.0	Little or no delay
B	> 10.0 to ≤ 15.0	Short traffic delay
C	> 15.0 to ≤ 25.0	Average traffic delay
D	> 25.0 to ≤ 35.0	Long traffic delay
E	> 35.0 to ≤ 50.0	Very long traffic delay
F	> 50.0	Severe congestion

Source: 2000 Highway Capacity Manual.

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections and all-way stop-controlled intersections; for one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach.

TRAFFIC IMPACT CRITERIA AND THRESHOLDS

The relative impact of the added project traffic volumes was evaluated based on the existing and future year 2018 conditions. The significance of the potential impacts of the project was evaluated using the City's LOS standards and impact criteria defined below:

- The City of Carson considers LOS D to be the minimum acceptable LOS for all intersections. No temporary adverse impact at an intersection if it is operating at LOS A, B, C or D with the addition of project traffic.



- For signalized intersections, a temporary adverse impact would occur if the project would increase the V/C ratio by 0.020 or more for intersections operating at LOS E or F.
- If an unsignalized intersection is operating at LOS E or F in HCM, it will also be analyzed under the ICU methodology. If the ICU analysis indicates a change in V/C or 0.020 or greater with the addition of project traffic, it is considered to be a temporary significant impact regardless of the ICU LOS.

EXISTING ROADWAY SYSTEM

This section describes the existing conditions of the study area including the existing roadway description, intersection geometry, and traffic volumes.

Roadway Description

The characteristics of the roadway system in the vicinity of the project site are described below:

- Sepulveda Boulevard is a four-lane divided roadway, traversing in an east-west direction. The posted speed along Ocean Boulevard is 40 miles per hour (mph) in the vicinity of the project site. On-street parking is restricted along Sepulveda Boulevard. Signalized intersections are located along Sepulveda Boulevard at Main Street, Dolores Street, Marbella Avenue, Panama Avenue, and Avalon Boulevard.
- Main Street is a four-lane divided roadway, trending in a north-south direction. The posted speed limit along Main Street is 40 mph. On-street parking is restricted along Main Street.
- Panama Avenue is a two-lane undivided residential roadway north of Sepulveda Boulevard, trending in a north-south direction. The posted speed limit along Panama Avenue is 25 mph. On-street parking is generally permitted along Panama Avenue, except on Tuesdays between 10:00 a.m. and 1:00 p.m.
- Avalon Boulevard is a four-lane divided roadway, trending in a north-south direction. The posted speed limit along Main Street is 40 mph. On-street parking is permitted along Avalon Boulevard.

Existing Conditions Traffic Volumes

To determine the existing operation of the study intersections, a.m. and p.m. peak hour intersection movement counts were collected in March 10, 2015. Peak period intersection counts were collected from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. for the a.m. and p.m. peak periods, respectively. The counts used in this analysis were taken from the highest hour within the peak period counted. Traffic count data sheets are included in Appendix B of [Appendix D](#).

Existing Conditions Peak Hour Intersection Level of Service

[Table 4.16-4, Existing Conditions Intersection Analysis Summary](#) summarizes the intersection operations analysis results for existing a.m. and p.m. peak hour conditions. Appendix C of [Appendix D, Traffic Impact Analysis](#), includes the existing conditions intersection operations analysis worksheets. As shown in [Table 4.16-4](#), all five existing study intersections are operating at LOS C or better.



Table 4.16-4
Existing Conditions Intersection Analysis Summary

Study Intersection			Existing Conditions (V/C – LOS)			
			AM Peak Hour		PM Peak Hour	
No.	Name	Type ¹	ICU/HCM ²	LOS	ICU/HCM ²	LOS
1	Main Street/Sepulveda Boulevard	TS	0.614	B	0.718	C
2	Dolores Street/Sepulveda Boulevard	TS	0.572	A	0.655	B
3	Marbella Avenue/Sepulveda Boulevard	TS	0.457	A	0.478	A
4	Panama Avenue/Sepulveda Boulevard	TS	0.534	A	0.485	A
5	Avalon Boulevard/Sepulveda Boulevard	TS	0.602	B	0.645	B

Notes:
 1. Intersection Type: TS = Traffic Signal
 2. Signalized: Intersection Capacity Utilization (ICU) Analysis Method, Volume/Capacity (V/C) Ratio
 Source: RBF Baker, *Sepulveda Panama Mixed-Use Project Traffic Impact Analysis*, March 25, 2015

- a) ***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?***

Less Than Significant Impact With Mitigation Incorporated. Project-related impacts on the surrounding roadway system are analyzed below.

Project Trip Generation

To determine project trip generation of the proposed project, the *Institute of Transportation Engineers (ITE) Trip Generation (9th Edition, 2012)* published trip generation rates were used. Table 4.16-5, ITE Trip Rates for the Proposed Project, summarizes ITE trip generation rates used to calculate the number of trips that would be generated by the proposed project.

Table 4.16-5
ITE Trip Generation Rates for the Proposed Project

Land Use (ITE Code) ¹	Units ²	AM Peak			PM Peak			Daily Trip Rate
		In%	Out%	Total	In%	Out%	Total	
Senior Adult Housing – Attached (252)	du	34%	66%	0.20	54%	46%	0.25	3.44
Specialty Retail Center (826)	tsf	44%	56%	2.71	48%	52%	6.84	44.32

Notes:
 1. Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012.
 2. du = dwelling units; tsf = thousand square feet.
 Source: RBF Baker, *Sepulveda Panama Mixed-Use Project Traffic Impact Analysis*, March 25, 2015.



Table 4.16-6, *Trip Generation of the Proposed Project* summarizes the forecast project trip generation of the proposed 65 senior housing units and 3,000 square feet of commercial retail utilizing the trip generation rates shown in Table 4.16-5.

Table 4.16-6
Trip Generation of the Proposed Project

Land Use	Size	AM Peak Hour Trip Generation			PM Peak Hour Trip Generation			Daily Trip Generation
		In	Out	Total	In	Out	Total	
Proposed Project								
Senior Adult Housing – Attached	65 DU	5	8	13	9	8	17	224
Specialty Retail Center	3,000 TSF	4	5	9	10	11	21	133
Proposed Project Trip Generation		9	13	22	19	19	38	357
Note: DU = dwelling units; TSF = Thousand Square Feet.								
Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.								

As shown in Table 4.16-6, the proposed project is forecast to generate approximately 357 daily trips, including 22 a.m. trips and 38 p.m. peak hour trips.

Existing With Project Conditions

This section analyzes traffic conditions associated with the addition of trips forecast to be generated by the proposed project on the existing roadway network.

Existing With Project Conditions Traffic Volumes

Existing with project conditions peak hour volumes were derived by adding project-generated trips to the existing condition traffic volumes. Exhibit 12 (Existing Plus Project Intersection Volumes) of the Traffic Impact Analysis (provided in Appendix D) show existing with project conditions a.m. and p.m. peak hour intersection traffic volumes.

Existing With Project Conditions Intersection Analysis

Table 4.16-7, *Existing With Project Conditions Intersection Analysis Summary*, summarizes the a.m. and p.m. peak hour intersection operations analysis results for Existing With Project conditions, based on existing and initial intersection geometry. Appendix H of Appendix D includes the existing with project conditions intersection operations analysis worksheets, with existing and initial geometry.



Table 4.16-7
Existing With Project Conditions
Intersection Analysis Summary

Study Intersection		Type ¹	Existing Conditions (ICU/HCM – LOS) ²		Existing With Project (ICU/HCM – LOS) ²		Increase		Significant Impact? ³
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
1	Main Street/Sepulveda Boulevard	TS	0.614 – B	0.718 - C	0.616 – B	0.723 – C	0.002	0.005	No
2	Dolores Street/Sepulveda Boulevard	TS	0.572 – A	0.655 - B	0.574 – A	0.658 – B	0.002	0.003	No
3	Marbella Avenue/Sepulveda Boulevard	TS	0.457 – A	0.478 – A	0.459 – A	0.481 – A	0.002	0.003	No
4	Panama Avenue/Sepulveda Boulevard	TS	0.534 – A	0.485 – A	0.539 – A	0.493 – A	0.005	0.008	No
5	Avalon Boulevard/Sepulveda Boulevard	TS	0.602 – B	0.645 – B	0.602 – B	0.646 – B	0.000	0.001	No
Notes:									
1. Intersection Type: TS = Traffic Signal									
2. Signalized: Intersection Capacity Utilization (ICU), Highway Capacity Manual (HCM), Level of Service (LOS)									
3. Significant Impact: ICU increase > 0.020 at signalized intersection									
Source: Michael Baker International, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.									

As shown in Table 4.16-7, all study intersections are projected to operate at LOS C or better. Based on the City's threshold criteria, the addition of project-generated trips would not contribute to a significant impact at the study intersections for Existing With Project conditions. No off-site roadway improvements are needed for the project.

The following improvement is needed to accommodate the project access:

- Panama Avenue at Sepulveda Avenue – New northbound all-way lane

Future Year 2018 Without Project Conditions

This section analyzes traffic conditions associated with the addition of trips forecast at the time the project is anticipated to open in Year 2018.

Future Year 2018 Without Project Conditions Traffic Volumes

The future year 2018 without project traffic volumes were derived by applying a background ambient growth rate of 0.5 percent per year. It is used to account for the growth of existing traffic when the project is anticipated to open in three years in Year 2018. The project site is located in the Regional Statistical Area (RSA) #19 of the Los Angeles County Congestion Management Program (CMP). The county's traffic model shows that the general traffic growth for RSA #19 from 2010 to 2020 is 5.1 percent, which is an annual growth of 0.5 percent. Appendix D of Appendix D contains the general traffic growth factors for the Los Angeles County CMP. The ambient growth rate of 0.5 percent is also consistent with other studies conducted in this area of the City.

The project is anticipated to open in Year 2018. An annual growth rate of 0.5 percent for three years from Year 2015 is a total of 1.5 percent.

Additionally, the future year 2018 without project traffic volumes include the addition of trips associated with the following nine cumulative projects identified by City of Carson staff located within a 2-mile radius of the project site.



Project descriptions for the nine cumulative developments are included in Appendix E of [Appendix D](#), and the list includes the following projects:

- The Avalon (21601 South Avalon Boulevard)
- 18 Single Family Homes (21801 South Vera Street)
- Eleven-Unit Apartment Complex (440 East Sepulveda Boulevard)
- Seafood City Shopping Center (21607 South Main Street)
- Plaza Avalon Shopping Center (23401 South Avalon Boulevard)
- Car Props Kia of Carson (22020 South Recreation Road)
- Carson Crossings Shopping Center (128-180 East Carson Street)
- Via 425 Apartments (401-425 East Carson Street)
- Veo Mixed Use Project (616 East Carson Street)

Table 4.16-8, *Cumulative Projects Trip Generation* summarizes the cumulative development trip generation summary. Trip rates published in the *Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012)* are used to calculate the number of trips that would be generated by the nine cumulative developments. Appendix F of [Appendix D](#) shows the detailed calculations of the cumulative development trips.

**Table 4.16-8
Cumulative Projects Trip Generation**

Cumulative Project		AM Peak Hour Trip Generation ¹			PM Peak Hour Trip Generation ¹			Daily Trip Generation ²
		In	Out	Total	In	Out	Total	
Address / Applicant	Land Use ¹							
21601 South Avalon Boulevard – The Avalon / Faring Capital	357 market-rate apartments with 32,310 SF commercial for retail and restaurant uses	55	158	213	201	141	342	3,754
21801 South Vera Street / Mark Mullin	Demolish existing industrial building to develop 18 single-family detached residences	3	10	13	11	7	18	171
440 East Sepulveda Boulevard / Equassure	11 DU Apartments	1	5	6	4	2	6	73
20607 South Main Street – Seafood City Shopping Center / GB Carson, LLC	New 3,675 SF commercial building for retail and restaurant uses	22	18	40	22	14	36	467
23401 South Avalon Boulevard / Soojin Avalon Plaza, LLC	Two new 2,800 SF and 3,500 SF commercial buildings for retail and restaurant uses	38	31	69	38	25	63	801
22020 South Recreation Road / Car Pros Kia of Carson	Current location at 21243 S. Avalon Boulevard will become a satellite facility when the new car dealership is complete.	93	31	124	68	102	170	2,093
128-180 East Carson Street – Carson Crossings Shopping Center / Paragon Commercial	Remodeling of the shopping center by new owner.	-	-	-	-	-	-	-
616 East Carson Street – Veo Mixed Use Project / Community Dynamics	152 DU condominiums and 13,313 SF retail	19	61	80	77	52	129	1,451



Table 4.16-8 [continued]
Cumulative Projects Trip Generation

Cumulative Project		AM Peak Hour Trip Generation ¹			PM Peak Hour Trip Generation ¹			Daily Trip Generation ²
Address / Applicant	Land Use ¹	In	Out	Total	In	Out	Total	
401 East Carson Street – Via 425 Apartments / Related Group	Phase of Via 425. Phase 2 includes a 40-unit affordable apartment community matching the completed Phase 1.	4	16	20	16	9	25	266
Total Forecast Cumulative Project Trip Generation		235	330	565	437	352	789	9,076
Notes: 1. SF= square feet; DU = dwelling units. See Appendix F of Appendix D for detailed traffic generation calculations. Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.								

As summarized in [Table 4.16-8](#), the nine cumulative developments would generate approximately 9,076 daily trips with 565 a.m. peak hour trips and 789 p.m. peak hour trips. Appendix G of [Appendix D](#) shows the trip distribution percentages for the cumulative developments. The cumulative development a.m. and p.m. peak hour intersection volumes are depicted in Exhibit 11 (Cumulative Development Intersection Volumes) of [Appendix D](#).

Future Year 2018 Without Project Conditions Intersection Analysis

[Table 4.16-9, Future Year 2018 Without and With Project Conditions Intersection Analysis Summary](#) summarizes the a.m. and p.m. peak hour intersection operations analysis results for 2018 future year 2018 without project conditions, based on existing and initial intersection geometry. Appendix I of [Appendix D](#) includes the future year 2018 without project conditions intersection operations analysis worksheets, with existing geometry. As shown in [Table 4.16-9](#), all study intersections are projected to operate at LOS C or better.

Table 4.16-9
Future Year 2018 Without and With Project Conditions
Intersection Analysis Summary

Study Intersection	Type ¹	Future Year 2018 Without Project (ICU/HCM – LOS) ²		Future Year 2018 With Project (ICU/HCM – LOS) ²		Increase		Significant Impact? ³
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
1 Main Street/Sepulveda Boulevard	TS	0.630 – B	0.736 – C	0.631 – B	0.741 – C	0.001	0.005	No
2 Dolores Street/Sepulveda Boulevard	TS	0.586 – A	0.671 – B	0.588 – A	0.675 – B	0.002	0.004	No
3 Marbella Avenue/Sepulveda Boulevard	TS	0.469 – A	0.492 – A	0.471 – A	0.495 – A	0.002	0.003	No
4 Panama Avenue/Sepulveda Boulevard	TS	0.548 – A	0.498 – A	0.553 – A	0.506 – A	0.005	0.008	No
5 Avalon Boulevard/Sepulveda Boulevard	TS	0.632 – B	0.674 – B	0.633 – B	0.676 – B	0.001	0.002	No
Notes: 1. Intersection Type: TS = Traffic Signal 2. Signalized: Intersection Capacity Utilization (ICU), Highway Capacity Manual (HCM), Level of Service (LOS) 3. Significant Impact: ICU increase > 0.020 at signalized intersection								
Source: RBF Baker, <i>Sepulveda Panama Mixed-Use Project Traffic Impact Analysis</i> , March 25, 2015.								



Future Year 2018 With Project Conditions

This section analyzes traffic conditions associated with the addition of trips forecast to be generated by the proposed project to future year 2018 without project conditions.

Future Year 2018 With Project Conditions Traffic Volumes

Future year 2018 with project conditions traffic volumes were derived by adding forecast project-generated trips to forecast future year 2018 without project conditions traffic volumes. Future year 2018 with project conditions a.m. and p.m. peak hour volumes at the study intersections is depicted in Exhibit 14 (2018 Cumulative Plus Project Intersection Volumes) of [Appendix D](#).

Forecast Future Year 2018 With Project Conditions Intersection Analysis

[Table 4.16-9](#) summarizes the a.m. and p.m. peak hour intersection operations analysis results for future year 2018 with project conditions, based on existing and initial intersection geometry. [Appendix J of Appendix D](#) includes the future year 2018 with project conditions intersection operations analysis worksheets, with existing and initial geometry. As shown in [Table 4.16-9](#), all existing and future study intersections are projected to operate at LOS C or better. Based on the City's threshold criteria, the addition of project-generated trips would not contribute to a significant impact at the study intersections for future year 2018 with project conditions. No off-site roadway improvements are needed for the project.

The following improvement is needed to accommodate the project access:

- Intersection 4 – Panama Avenue at Sepulveda Avenue – New northbound all-way lane

Conclusions

The proposed project is forecast to generate approximately 357 daily trips, which includes approximately 22 a.m. and 38 p.m. peak hour trips. Based on the applicable agency-established thresholds of significance, the proposed project is forecast to result in no significant traffic impacts at the study intersections for the evaluated scenarios except for project access. Implementation of Mitigation Measure TRA-1 requires the proposed project to accommodate project access through a new northbound all-way lane at the Panama Avenue/Sepulveda Avenue intersection. As such, with implementation of Mitigation Measure TRA-1, a less than significant impact would occur in this regard.

Mitigation Measures:

TRA-1 Prior to issuance of any building permits, the project Applicant shall make the following improvement:

- Intersection 4 – Panama Avenue at Sepulveda Avenue – Add one new northbound all-way lane at the project access.

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

Less Than Significant Impact. The purpose of the Congestion Management Program (CMP) is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use, and air quality planning programs throughout the County. The program is consistent with that of the Southern California Association of Governments (SCAG). The CMP program requires review of significant individual projects, which might on their own impact the CMP transportation system.



According to the CMP (*Los Angeles County Metropolitan Transportation Authority, 2010*), those proposed projects, which meet the following criteria, shall be evaluated:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hours (of adjacent street traffic).
- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hours.

Based on these criteria, no regional facilities have been identified for further CMP analysis. Impacts would be less than significant in this regard.

In accordance with the CMP requirement, the potential impact of the project on the transit service has also been assessed. The project trip generation, as previously shown in Table 4.16-6, was adjusted to determine the transit trips generated by the project. Per the CMP guidelines, a person trips equal 1.4 times vehicle trips and transit trips equal to 3.5 percent of the total person trips. The conversion equation is: Transit trips = 0.035 □ (1.4 □ vehicle trips); or Transit trips = 0.049 □ Vehicle trips.

Table 4.16-10, Project Transit Trip Calculation shows the project transit trip calculations. As shown in Table 4.16-10, the project would generate 17 daily transit trips with 1 a.m. peak hour transit trips (0 a.m. inbound and 1 a.m. outbound) and 2 p.m. peak hour transit trips (1 p.m. inbound and 1 p.m. outbound).

**Table 4.16-10
Project Transit Trip Calculation**

Trip Type	AM			PM			Daily Trip Generation
	Peak Hour Trip Generation			Peak Hour Trip Generation			
	In	Out	Total	In	Out	Total	
Net Vehicle Trips	9	13	22	19	19	38	357
Transit Trips	0	1	1	1	1	2	17

Source: RBF Baker, *Sepulveda Panama Mixed-Use Project Traffic Impact Analysis*, March 25, 2015.

It is anticipated that the existing transit service in the project study area would be able to accommodate the project-generated transit trips. The project study area is currently being served by the following transit service (see Appendix K of Appendix D):

- Torrance Transit – Bus Route 7 on Sepulveda Boulevard; and Bus Route 3 on Main Street; and
- Metro Bus – Bus Route 246 on Avalon Boulevard.

As shown in Table 4.16-10, the project generates a low number of transit trips and with available transit opportunities available in the study area, it is concluded that the existing public transit system would not be significantly impacted by the proposed project. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.



c) 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?

No Impact. The nearest airport, the Torrance Municipal Airport, is located over 3.5 miles west of the project site. The project site is not located within the Airport Influence Area. Due to the distance and nature of the proposed project, implementation of the proposed project would not result in any change in air traffic patterns or traffic levels. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The proposed project would not substantially increase hazards due to design features. As described in Section 2.0, Project Description, vehicular access for the commercial retail and residential uses would be provided from Sepulveda Boulevard. In addition, residents and visitors would enter the parking garage through a maneuvering area and a roll up gate located on the eastern portion of the development. All project site driveways and circulation design features would be constructed to City of Carson design standards, and would not increase hazards due to a design feature. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

e) Result in inadequate emergency access?

Less Than Significant Impact. The project site is located to the southwest of East Sepulveda Boulevard and Panama Avenue and to the southeast of the East Sepulveda Boulevard and Marbella Avenue. As noted above, vehicular access for the commercial retail and residential uses would be provided from Sepulveda Boulevard. All driveways would be required to comply with the *Carson Municipal Code* (Municipal Code), and the standards imposed by the Los Angeles County Fire Department (LACFD) to ensure proper emergency access. Additionally, all construction staging would occur within the boundaries of the project site and would not interfere with circulation along Sepulveda Boulevard, Panama Avenue, or any other nearby roadways; refer to Response 4.8(g). Upon adherence to the Municipal Code and LACFD requirements, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less Than Significant Impact. The project would not conflict with adopted policies, plans, or programs supporting alternative transportation. The project site is served by adequate public transit, bicycle, and pedestrian facilities that would support the proposed project, as discussed below.

Public Bus Transit Service

As noted above, the project site is served by Torrance Transit Bus Route 7 along Sepulveda Boulevard, Bus Route 3 along Main Street and Metro Bus Route 246 along Avalon Boulevard. Existing bus stops are conveniently located at the following locations immediately adjacent to the project site:

- An eastbound near-side bus stop along the south side of Sepulveda Boulevard, east of Panama Avenue;
- A westbound far-side bus stop along the north side of Sepulveda Boulevard, west of Panama Avenue;



Refer to Appendix K of Appendix D for the Torrance Transit and Metro public transit routes. The proposed project would not interfere with access to any of these routes. The proposed project would enhance transit services by improving circulation and access within the Specific Plan area. Further, the proposed project would not cause any significant impacts along the roadway segments that serve the transit routes. Therefore, impacts to existing transit service would be less than significant in this regard.

Bicycle Facilities

According to the City's *Master Plan of Bikeways* (Bicycle Master Plan), there are currently Class II bicycle lanes along Sepulveda Boulevard and Dolores Street. The project proposes 8 bicycle parking spaces within the parking garage to accommodate on-site residents and commercial consumers. Construction staging would occur within the boundaries of the project site and is not anticipated to interfere significantly with circulation along Sepulveda Boulevard, Dolores Street, Panama Avenue, or any other nearby roadways. The proposed project would not significantly impact the effectiveness or performance of existing bicycle facilities. Overall, the project would encourage the use of bicycle facilities by providing bicycle racks throughout the project site. A less than significant impact would occur in this regard.

Pedestrians

Although all construction staging would occur within the boundaries of the project site, construction activities could temporarily limit pedestrian use of the sidewalk adjacent to the site. These activities would be temporary and would cease upon project completion, resulting in a less than significant impact. Project operations would not significantly impact the effectiveness or use of sidewalks within the area. Access to the existing sidewalks along Sepulveda Boulevard would remain. In addition, the project would allow for pedestrian circulation throughout the project site, including a small park comprised of an enhanced paved walking path, planting plots, community gardens, and open space areas located on the eastern portion of the project site. Residential facilities/amenities such as courtyards, podium gardens, and community space (community room, community gardens and outdoor seating/theatre) would enhance the pedestrian experience on-site. Additionally, street-aligned trees along Sepulveda Boulevard would separate the sidewalk from pedestrians, providing a more enhanced pedestrian experience in the vicinity of the project site. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.



SEPULVEDA AND PANAMA MIXED USE PROJECT
Public Review Draft Initial Study/Mitigated Negative Declaration

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4.17 UTILITIES AND SERVICE SYSTEMS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			✓	
b. 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?			✓	
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			✓	
e. 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?			✓	
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g. Comply with federal, state, and local statutes and regulations related to solid waste?				✓

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The State Water Resources Quality Control Board (SWRCB) enforces wastewater treatment and discharge requirements for the City, including the project site. The proposed project would convey wastewater through municipal sewage infrastructure maintained by the Los Angeles County Sanitation Districts' (LACSD) Joint Water Pollution Control Plant (JWPCP). The LACSD operates ten water reclamation plants (WRPs) and one ocean discharge facility (JWPCP), which treat approximately 510 million gallons per day (mgd), 165 mgd of which are available for reuse. The capacities at these facilities range from 0.2 mgd (La Cañada WRP) to 400 mgd (JWPCP).¹

The proposed project would result in the construction of a 95,900 square-foot residential/commercial mixed-use development. While the project would result in a net increase in population at the site, the LACSD has adequate capacity to serve the proposed project, and the project would not result in a violation of the existing requirements prescribed by the SWRCB. The LACSD would be responsible for meeting all State and Federal wastewater treatment requirements. The design capacities of the Districts' wastewater treatment facilities are based on regional growth forecasts adopted by the Southern California Association of Governments (SCAG). All expansion of LACSD's facilities must be sized and service phased in a manner that would be consistent with SCAG's regional growth

¹ Sanitation Districts of Los Angeles County, *Wastewater Facilities*, <http://www.lacsd.org/wastewater/wwfacilities/>, accessed March 25, 2015.



forecasts. The available capacity of the LACSDs' treatment facilities would be limited to levels associated with the approved growth identified by SCAG. As such, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- b) ***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?***

Less Than Significant Impact. California Water Service Company (Cal Water) Dominguez District and Southern California Water Company (SCWC) Southwest District Water service provides water service to the City, including the project site. Cal Water serves approximately 87 percent of the City while SCWC serves approximately 13 percent of the City. Water is provided to the City from groundwater sources and treated surface water purchased from the Metropolitan Water District (MWD).

The City of Carson owns the sanitary sewer system in the City. The Los Angeles County Department of Public Works Consolidated Sewer Maintenance District (CSMD) maintains the sewer lines. The CSMD collects user fees for the operation and maintenance of the system. Trunk lines and the wastewater treatment plant are owned and operated by the LACSD. Wastewater generated within the City is treated at the Joint Water Pollution Control Plant (JWPCP). The JWPCP provides both primary and secondary treatment for approximately 280 million gallons of wastewater per day (mgd), and has a total permitted capacity of 400 mgd.²

The project site is currently vacant and does not utilize potable water or generate wastewater. Water and wastewater conveyance facilities are located in surrounding roadways and substantial modification resulting in significant environmental effects would not be required to serve the proposed project. For Cal Water, new development are either connected to existing mains or are required to pay for installation of facilities required to provide service while SCWC requires a site-specific evaluation of the existing water system's capacity to serve new development. If additional water supplies and/or water system facility improvements are required, the developer may be required to pay the cost of all or portions of the needed improvements. Upon approval of applicable water connections or facilities installation fees and a site-specific evaluation, impacts in this regard would be less than significant. The CSMD charges a connection fee to cover the costs of connecting a development project to the sewer system, which reduces the impact of individual projects on the sewer system. LACSD's facilities are sized and service improvements phased in accordance with SCAG regional growth projections. It should be noted that the project proposes uses that are consistent with the existing land use and zoning designations for the project site. Although domestic water and wastewater generation would increase due to increased development on-site, new water or wastewater treatment facilities would not need to be constructed as a result of project implementation. Impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- c) ***Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

Less Than Significant Impact. The proposed project site is completely disturbed and is currently vacant. Currently, stormwater from the project site flows via sheet flow across the project site onto Sepulveda Boulevard at several locations. Stormwater catch basins are located within adjacent public right-of-ways. The proposed project would relocate an existing Los Angeles County Department of Public Works (LACDPW) public catch basin located on Sepulveda Boulevard and include grate inlets and yard drains on-site. The storm flow from the project would be

² Los Angeles County Sanitation District, *Joint Water Pollution Control Plant*, <http://www.lacsd.org/wastewater/wfacilities/jwpcp/default.asp>, accessed March 25, 2015.



designed to accommodate LACDPW Standard Urban Stormwater Mitigation Plan (SUSMP) requirements. As such, the storm drain system would remain the same size and is designed to handle the runoff generated from a 50-year design storm. Thus, project implementation would not require the construction of new storm water drainage facilities or expansion of existing facilities. Impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

- d) ***Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?***

Less Than Significant Impact. Cal Water Dominguez District provides water service to the project site. Approximately 80 percent of the water supply distributed by California Water Company is comprised of imported water, 18 percent is groundwater, and 2 percent desalinated water. Based on the Cal Water 2010 Urban Water Management Plan (UWMP), Cal Water has a water demand of 32,364 acre feet per year (AFY) (well below the projected target demand of 36,802 AFY by the year 2020).

The UWMP includes an analysis of water supply reliability projected through 2035. Based on the analysis, Cal Water would be capable of providing adequate water supply to its service area under a normal supply and demand scenario, single dry-year supply and demand scenario, and multiple dry-year supply and demand scenarios through 2035. Thus, the Cal Water UWMP accounts for increased demand as growth within the City occurs.

Furthermore, the proposed project is not required to conduct a Water Supply Assessment (WSA). The project proposes the development of 65 senior housing units and 3,000 square feet of commercial land uses. Based on California Water Code Section 10912, the proposed project is below the WSA threshold criteria because it does not propose more than 500 dwelling units and does not propose a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

According to the *Carson General Plan EIR* (General Plan EIR), it was also concluded that sufficient water supply and service would be provided to serve development in the City, projected to occur by 2020. Cal Water has indicated that while no additional facilities are planned, there are sufficient water supplies to serve the City with implementation of the proposed *Carson General Plan* (General Plan). Project operations would result in a demand of approximately 7.86 million gallons per year (23.94 AF per year), according to the California Emissions Estimator Model (CalEEMod) default assumptions for senior housing and specialty retail uses. This would equate to approximately 0.065 percent of the City's projected 2020 water demand. Therefore, the project would be adequately served by available water supplies from existing entitlements and resources and would not require new or expanded entitlements. Additionally, since the proposed project would be consistent with the development projections for the City and is not expected to impact groundwater supply, impacts related to water supply and service would be less than significant. Thus, impacts in this regard would be less than significant.

Mitigation Measures: No mitigation is required.

- e) ***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?***

Less Than Significant Impact. Refer to Responses 4.17(a) and 4.17(b), above.

Mitigation Measures: No mitigation is required.



- f) ***Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?***

Less Than Significant Impact. In compliance with the California Green Building Code (CalGreen), the project would be required to divert 50 percent of its construction waste from landfills. The remaining construction demolition material, as well as solid waste from project operations, would be transported to the closest landfill to the project site, the Savage Canyon Landfill. This landfill has a total capacity of 3,350 tons per day and has a remaining capacity of 9,510,833 cubic yards.³ This landfill has 40 years of total capacity left.

Waste Management Inc. provides residential and commercial waste collection services while EDCO Waste Services provides additional commercial waste services for the City, including the project site.⁴ Solid waste collected in the City is taken to the company's transfer station in Carson, where it is sorted. In 2013, the City disposed of 248,070 tons of solid waste, which represents 14.4 pounds per person per day and 25.1 pounds per employee per day.⁵ The City's target population disposal rate (pounds/person/day) is 19.3 and target employee disposal rate (pounds/employee/day) is 37.3.⁶

Project implementation would result in increased solid waste generation during the construction process. In addition solid waste generated by on-site residents and employees during long-term operations are estimated to generate approximately 15.05 tons of solid waste per year (0.04 tons per day). The amount of solid waste requiring disposal at local landfills would be reduced through compliance with CalGreen, which requires that areas are provided for depositing and collecting non-hazardous materials for recycling. Additionally, waste and recycling bins would be located on-site. The project's daily contribution (0.04 tons/day) to the landfills represents a nominal amount (.001 percent) of the Savage Canyon Landfill's daily capacity. This increase in solid waste generation is not expected to be substantial based upon the capacity available at Savage Canyon Landfill. Thus, impacts would be less than significant in this regard.

Mitigation Measures: No mitigation is required.

- g) ***Comply with federal, state, and local statutes and regulations related to solid waste?***

No Impact. The proposed project would comply with all Federal, State, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act and City recycling programs. No impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

³ Cal Recycle, *Savage Canyon Landfill Facility/Site Summary*, http://www.calrecycle.ca.gov/SW_Facilities/Directory/19-AH-0001/Detail/, accessed March 25, 2015.

⁴ City of Carson, *Solid Waste*, http://ci.carson.ca.us/content/department/dev_service/solidwaste.asp, accessed March 25, 2015.

⁵ CalRecycle, *Jurisdiction Diversion/Disposal Rate Report*, <http://www.calrecycle.ca.gov/LGCentral/Reports/DiversionProgram/JurisdictionDiversionDetail.aspx?JurisdictionID=76&Year=2013>, accessed March 25, 2015.

⁶ Ibid.



4.18 MANDATORY FINDINGS OF SIGNIFICANCE

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		
b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?		✓		
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

- a) ***Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***

Less Than Significant Impact With Mitigation Incorporated. The project site is within a developed urbanized area, and there are no rare, endangered, or threatened plants and animal species within the project site. No impacts to biological resources would occur.

As noted above within Section 4.5, Cultural Resources, the site exists within a highly developed area and the project site has been completely disturbed as a result of existing on-site uses. No known cultural resources exist within the boundaries of the site. Although it is not expected that cultural resources would be encountered during construction, the project would require excavation. As such, Mitigation Measures CUL-1 and CUL-2 have been provided in the unlikely event such resources are discovered during the grading and excavation process. Upon implementation of the recommended mitigation measures, impacts would be reduced to less than significant levels. Therefore, the proposed project would not potentially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.

- b) ***Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?***



Less Than Significant Impact With Mitigation Incorporated. Based on the analysis contained in this Initial Study, the project would not have cumulatively considerable impacts with implementation of project mitigation measures. Implementation of mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects.

- c) ***Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?***

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would result in less than significant environmental impacts with implementation of the recommended mitigation measures. Therefore, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.



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4.20 REPORT PREPARATION PERSONNEL

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5.0 CONSULTANT RECOMMENDATION

Based on the information and environmental analysis contained in the Initial Study/Environmental Checklist, we recommend that the City of Carson prepare a mitigated negative declaration for the Sepulveda and Panama Mixed-Use Project. We find that the proposed project could have a significant effect on a number of environmental issues, but that mitigation measures have been identified that reduce such impacts to a less than significant level. We recommend that the second category be selected for the City of Carson's determination (see Section 7.0, Lead Agency Determination).

April 13, 2015

Date

A handwritten signature in black ink, appearing to read "Eddie Torres", written over a horizontal line.

Eddie Torres, Project Manager
RBF Consulting, a Michael Baker International Company



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6.0 LEAD AGENCY DETERMINATION

On the basis of this initial evaluation:

I find that the proposed use COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. —

I find that although the proposal could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 4.0 have been added. A MITIGATED NEGATIVE DECLARATION will be prepared. ✓

I find that the proposal MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. —

I find that the proposal MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a “potentially significant impact” or “potentially significant unless mitigated.” An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. —

Signature: 
Title: Associate Planner
Printed Name: Richard Rojas
Agency: City of Carson
Date: April 13, 2015



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